ICS 67.050
CCS X 04

SN

中华人民共和国出入境检验检疫行业标准

SN/T 5734—2025

出口植物源食品中多种农药残留的筛查 液相色谱-高分辨质谱法

Screening determination of multi-groups of pesticides in plant-derived foods for export-Liquid chromatography-high resolution mass spectrometry

2025-12-11 发布　　2026-07-01 实施

中华人民共和国海关总署　发布

前　言

本文件按照GB/T 1.1-2020《标准化工作导则　第1部分：标准化文件的结构和起草规则》的规定起草。

请注意本文件的某些内容可能涉及专利，本文件的发布机构不承担识别专利的责任。

本文件由中华人民共和国海关总署提出并归口。

本文件起草单位：上海海关动植物与食品检验检疫技术中心、长春海关技术中心、南京海关动植物与食品检测中心、合肥海关技术中心、厦门海关技术中心、厦门大学。

本文件主要起草人：李优、曾静、张勋、丁涛、柳菡、韩芳、宋伟、张怡、张庶冉、徐敦明、吴彩胜、伊雄海、郭德华。

出口植物源食品中多种农药残留的筛查 液相色谱–高分辨质谱法

1 范围

本文件规定了植物源食品中540种农药的液相色谱–高分辨质谱测定方法。

本文件适用于蔬菜、水果、坚果、食用菌、干制蔬菜、干制水果、干制食用菌、谷物等植物源食品中540种农药的筛查测定，对于确认存在的农药或化合物，应采用其他定量标准方法定量、确证。

2 规范性引用文件

下列文件中的内容通过文中的规范性引用而构成本文件必不可少的条款。其中，注日期的引用文件，仅该日期对应的版本适用于本文件；不注日期的引用文件，其最新版本（包括所有的修改单）适用于本文件。

GB 2763–2021 食品安全国家标准 食品中农药最大残留限量

GB/T 6682 分析实验室用水规格和试验方法

3 术语和定义

本文件没有需要界定的术语和定义。

4 方法提要

试样用乙腈提取，提取液经分散固相萃取净化，用液相色谱–高分辨质谱仪筛查测定。

5 试剂材料

除非另有说明，所用试剂均为分析纯，水为GB/T 6682规定的一级水。

5.1 试剂

5.1.1 甲醇（CH_3OH）：色谱纯。

5.1.2 乙腈（CH_3CN）：色谱纯。

5.1.3 甲酸（HCOOH）：色谱纯。

5.1.4 无水硫酸镁（$MgSO_4$）：研磨后在500 ℃马弗炉内烘5 h，200 ℃时取出装瓶，贮于干燥器中，冷却后备用。

5.1.5 氯化钠（NaCl）。

5.1.6 柠檬酸钠二水合物（$C_6H_5Na_3O_7 \cdot 2H_2O$）。

5.1.7 柠檬酸二钠盐倍半水合物（$C_6H_6Na_2O_7 \cdot 1.5H_2O$）。

5.1.8 乙酸铵（CH_3COONH_4）。

5.2 溶液配制

5.2.1 5 mmol/L乙酸铵-0.1%甲酸水溶液：准确称取0.385 g乙酸铵，用适量水溶解，加入1 mL甲酸，并转移至1 L容量瓶，用水定容至刻度。
5.2.2 5 mmol/L乙酸铵-甲醇溶液：准确称取0.385 g乙酸铵，用适量甲醇溶解并转移至1 L容量瓶，用甲醇定容至刻度。

5.3 标准品

纯度均≥95%，详细信息见附录A。

5.4 标准溶液配制

5.4.1 标准储备液：分别精确称取上述标准品（5.3）10 mg（精确至0.1 mg），根据标准品的溶解性选择甲醇或乙腈等溶剂溶解，转移至10 mL容量瓶并定容至刻度，配制成1000 μg/mL的标准储备液（也可购买商品化的混标溶液），于-18 ℃以下避光保存，有效期为6个月。
5.4.2 混合标准中间溶液：准确移取适量混合标准储备液（5.4.1）至容量瓶中，用乙腈定容至刻度，配制成1 μg/mL的混合标准中间溶液，于-18 ℃以下避光保存，有效期为3个月。
5.4.3 混合标准工作溶液：准确移取适量混合标准储备液（5.4.2）至容量瓶中，用乙腈定容至刻度，配制成100 ng/mL的混合标准工作溶液，于-18 ℃以下避光保存，有效期为3个月。

5.5 材料

5.5.1 十八烷基硅烷键合硅胶（C_{18}）：40 μm～60 μm。
5.5.2 乙二胺-N-丙基硅烷化硅胶（PSA）：40 μm～60 μm。
5.5.3 石墨化碳黑（GCB）：40 μm ～120 μm。
5.5.4 陶瓷均质子：2 cm（长）×1 cm（外径），或相当者。
5.5.5 微孔滤膜：0.22 μm，尼龙针式过滤器。

6 仪器与设备

6.1 液相色谱-高分辨质谱仪：配有电喷雾离子源（ESI），分辨率≥10000（10%峰谷处）或20000（按半峰全宽（FWHM）处）。
6.2 电子天平：感量为0.01 g和0.0001 g。
6.3 离心机：最大转速为4000 r/min、10000 r/min。
6.4 均质机。
6.5 旋涡混匀器。

7 试样制备与贮存

7.1 试样制备

7.1.1 样品制备部位

样品制备部位按照GB 2763-2021附录A的规定执行。

7.1.2 坚果、食用菌、蔬菜、水果

坚果、食用菌、蔬菜、水果随机取样1 kg。对于个体较小的样品，取样后全部处理；对于个体较

大的基本均匀样品，可在对称轴或对称面上分割或切成小块后处理；对于细长、扁平或组分含量在各部分有差异的样品，可在不同部位切取小片或截成小段后处理；取后的样品将其切碎，充分混匀，用四分法取一部分或全部用组织捣碎机匀浆后，放入聚乙烯瓶中。

7.1.3 干制蔬菜、干制水果、干制食用菌

干制蔬菜、水果和食用菌样品随机取样500 g，粉碎后充分混匀，放入聚乙烯瓶或袋中。

7.1.4 谷物

谷物随机取样500 g，粉碎后使其全部可通过425 μm的标准网筛，放入聚乙烯瓶或袋中。

7.2 试样贮存

将制备好的试样分成2份，作为测试样和留样，于−18 ℃以下密封贮存。

8 分析步骤

8.1 前处理

8.1.1 蔬菜、水果、食用菌

称取10 g（精确至0.01 g）试样于50 mL离心管中，加入10 mL乙腈，20000 r/min均质提取2 min，加入2颗陶瓷均质子、4 g $MgSO_4$、1 g NaCl、1 g $C_6H_5Na_3O_7 \cdot 2H_2O$、0.5 g $C_6H_6Na_2O_7 \cdot 1.5H_2O$，迅速剧烈振荡5 min，4000 r/min离心5 min，准确移取1 mL上清液至含有5 mg PSA、150 mg $MgSO_4$、50 mg C_{18}（对于颜色较深的试样再加2.5 mg GCB）的15 mL离心管中，涡旋振荡2 min，10000 r/min离心5 min，吸取500 μL上层清液，以乙腈定容至1 mL，过0.22 μm尼龙滤膜，上机测定。若检测信号饱和，则以乙腈稀释后进样测定。

8.1.2 干制蔬菜、干制水果、干制食用菌

称取2 g（精确至0.01 g）试样于50 mL离心管中，加入10 mL水浸泡30 min，按8.1.1其余步骤操作。

8.1.3 谷物、油料和坚果

称取5 g（精确至0.01 g）试样于50 mL离心管中，加入10 mL水浸泡30 min，加入10 mL乙腈，20000 r/min均质提取2 min，加入2颗陶瓷均质子、4 g $MgSO_4$、1 g NaCl、1 g $C_6H_5Na_3O_7 \cdot 2H_2O$、0.5 g $C_6H_6Na_2O_7 \cdot 1.5H_2O$，迅速剧烈振荡5 min，4000 r/min离心5 min，准确移取1 mL上清液至含有5 mg PSA、150 mg $MgSO_4$、50 mg C_{18}的15 mL离心管中，涡旋振荡2 min，10000 r/min离心5 min，吸取500 μL上层清液，以乙腈定容至1 mL，过0.22 μm尼龙滤膜，上机测定。若检测信号饱和，则以乙腈稀释后进样测定。

8.2 空白样品基质溶液的制备

取不含目标化合物的样品，按8.1步骤制备。

8.3 混合基质标准溶液的制备

8.3.1 蔬菜、水果、食用菌

准确吸取100 mL混合标准工作溶液（5.4.3），用乙腈定容至1 mL，再以空白样品基质溶液

（78.2）1：1稀释，配成浓度为5 ng/mL，现用现配。

8.3.2　干制蔬菜、水果、食用菌

准确吸取20 mL混合标准工作溶液（5.4.3），用乙腈定容至1 mL，再以空白样品基质溶液（8.2）1：1稀释，配成浓度为1 ng/mL，现用现配。

8.3.3　谷物、油料和坚果

准确吸取50 mL混合标准工作溶液（5.4.3），用乙腈定容至1 mL，再以空白样品基质溶液（8.2）1：1稀释，配成浓度为2.5 ng/mL，现用现配。

8.4　测定

8.4.1　液相色谱条件

液相色谱条件如下：

a）色谱柱：C_{18}，长150 mm，内径3.0 mm，粒径2.7 μm，或相当者；

b）流动相：A：5 mmol/L乙酸铵–0.1%甲酸水溶液；B：5 mmol/L乙酸铵–甲醇溶液，梯度洗脱程序参见表1；

c）流速：0.4 mL/min；

d）柱温：40 ℃；

e）进样量：10 mL。

表1　流动相梯度洗脱程序

时间（min）	流动相A（%） 5 mmol/L乙酸铵–0.1%甲酸水溶液	流动相B（%） 5 mmol/L乙酸铵–甲醇溶液
0.0	95	5
1.0	95	5
4.0	40	60
14.0	0	100
18.0	0	100
18.1	95	5

8.4.2　质谱条件

质谱条件参见附录B。

8.4.3　质谱数据库的建立

8.4.3.1　一级精确质量数据库

输入540种农药的名称、CAS号及分子式，由高分辨质谱谱库构建软件计算得到每个化合物的理论精确质量数。在8.4.1、8.4.2的仪器条件下，对混合标准工作溶液（5.4.3）进样，进行一级质谱全扫描，选择信号强度未饱和的数据结果（若信号强度饱和，以乙腈稀释标准溶液后进样），获得目标化合物的保留时间和分子离子加合形式，建立540种农药的一级精确质量数据库。

8.4.3.2　二级精确质量数据库

在8.4.1、8.4.2的仪器条件下，对混合标准中间溶液（5.4.2）进样，对目标物的母离子施加不同

碰撞能量进行测定，获得包括母离子、子离子和二级谱图信息，建立540种农药的二级精确质量数据库库。540种化合物的典型子离子参见附录B。

8.4.4　目标物鉴别

在8.4.1、8.4.2的仪器条件下，对待测样品进样，进行一级扫描，若试样溶液中的目标化合物与质量数据库相比，若信号响应要求、保留时间偏差、母离子精确质量数偏差满足表2的判定条件，则可以初步判断试样中含有该种农药或化合物，并按8.4.5步骤进行目标物确认。

表2　目标物鉴别的判定条件

判别项	判定条件	备注
信号响应要求	S/N ≥ 3	色谱峰
保留时间	≤ ± 2.5%	且≤ ± 0.5 min
母离子精确质量数偏差	相对偏差≤0.001%	

8.4.5　目标物确认

对于初步鉴别出的农药或化合物，在8.4.1、8.4.2的仪器条件下，对待测样品和混合基质标准溶液（8.3）进样，进行二级扫描，若试样溶液中的目标化合物和混合基质标准溶液相比，至少出现母离子和一个子离子，且质量数偏差满足表3的判定条件，则判定为试样中存在这种农药或化合物。对于确认存在的农药或化合物，应采用其他定量标准方法定量、确证。

表3　目标物确认的判定条件

判别项	判定条件	备注
信号响应要求	检测浓度大于基质标准溶液	色谱峰
保留时间	≤ ± 0.2 min	与基质标准溶液中的目标物相比
母离子精确质量数偏差	相对偏差≤0.0005%	
子离子质量数偏差	相对偏差≤0.001%	

本方法的标准物质离子提取色谱图参见附录C。

9　假阴性率

本方法的假阴性率≤5%。

10　假阳性率

本方法的假阳性率≤15%。

11　方法筛查限

本方法的方法筛查限为：0.01 mg/kg。

A 采用本方法对片剂、胶囊剂和 口服液3种食品基质进行添加回收试验，不同添加浓度范围内非法添加物的平均回收率和精密度资料见附录D中表D.1。

附　录　A
（规范性）
540种化合物信息

A.1　540种化合物的信息如表A.1所示。

表A.1　540种农药的中英文名称、分子式和CAS号

序号	中文名	英文名	分子式	CAS号
1	乙酰甲胺磷	acephate	$C_4H_{10}NO_3PS$	30560-19-1
2	乙草胺	acetochlor	$C_{14}H_{20}ClNO_2$	34256-82-1
3	烯丙菊酯	allethrin	$C_{19}H_{26}O_3$	584-79-2
4	莠去津	atrazine	$C_8H_{14}ClN_5$	1912-24-9
5	甲基吡啶磷	azamethiphos	$C_9H_{10}ClN_2O_5PS$	35575-96-3
6	益棉磷	azinphos-ethyl	$C_{12}H_{16}N_3O_3PS_2$	2642-71-9
7	嘧菌酯	azoxystrobin	$C_{22}H_{17}N_3O_5$	131860-33-8
8	丙硫克百威	benfuracarb	$C_{20}H_{30}N_2O_5S$	82560-54-1
9	联苯肼酯	bifenazate	$C_{17}H_{20}N_2O_3$	149877-41-8
10	噻嗪酮	buprofezin	$C_{16}H_{23}N_3OS$	69327-76-0
11	丁草胺	butachlor	$C_{17}H_{26}ClNO_2$	23184-66-9
12	仲丁灵	butralin	$C_{14}H_{21}N_3O_4$	33629-47-9
13	硫线磷	cadusafos	$C_{10}H_{23}O_2PS_2$	95465-99-9
14	甲萘威	carbaryl	$C_{12}H_{11}NO_2$	63-25-2
15	三硫磷	carbophenothion	$C_{11}H_{16}ClO_2PS_3$	786-19-6
16	丁硫克百威	carbosulfan	$C_{20}H_{32}N_2O_3S$	55285-14-8
17	氟啶脲	chlorfluazuron	$C_{20}H_9Cl_3F_5N_3O_3$	71422-67-8
18	毒死蜱	chlorpyrifos	$C_9H_{11}Cl_3NO_3PS$	2921-88-2
19	甲基毒死蜱	chlorpyrifos-methyl	$C_7H_7Cl_3NO_3PS$	5598-13-0
20	绿麦隆	chlorotoluron	$C_{10}H_{13}ClN_2O$	15545-48-9
21	巴毒磷	crotoxyphos	$C_{14}H_{19}O_6P$	7700-17-6
22	蝇毒磷	coumaphos	$C_{14}H_{16}ClO_5PS$	56-72-4
23	乙拌磷	disulfoton	$C_8H_{19}O_2PS_3$	298-04-4
24	嘧菌环胺	cyprodinil	$C_{14}H_{15}N_3$	121552-61-2
25	溴氰菊酯	deltamethrin	$C_{22}H_{19}Br_2NO_3$	52918-63-5
26	内吸磷	dementon	$C_8H_{19}O_3PS_2$	8065-48-3
27	甲基内吸磷砜	demeton-methyl sulfone	$C_6H_{15}O_5PS_2$	17040-19-6
28	甲基内吸磷亚砜	demeton -methyl sulfoxide	$C_6H_{15}O_4PS_2$	301-12-2
29	除线磷	dichlofenthion	$C_{10}H_{13}Cl_2O_3PS$	97-17-6
30	敌敌畏	dichlorvos	$C_4H_7Cl_2O_4P$	62-73-7
31	百治磷	dicrotophos	$C_8H_{16}NO_5P$	141-66-2
32	乙霉威	diethofencarb	$C_{14}H_{21}NO_4$	87130-20-9
33	乐果	dimethoate	$C_5H_{12}NO_3PS_2$	60-51-5
34	烯唑醇	diniconazole	$C_{15}H_{17}Cl_2N_3O$	83657-24-3
35	乙拌磷砜	disulfoton-sulfone	$C_8H_{19}O_4PS_3$	2497-06-5

表 A.1 （续）

序号	中文名	英文名	分子式	CAS 号
36	乙拌磷亚砜	disulfoton-sulfoxide	$C_8H_{19}O_3PS_3$	2497-07-6
37	灭菌磷	ditalimfos	$C_{12}H_{14}NO_4PS$	5131-24-8
38	敌瘟磷	edifenphos	$C_{14}H_{15}O_2PS_2$	17109-49-8
39	乙硫磷	ethion	$C_9H_{22}O_4P_2S_4$	563-12-2
40	灭线磷	ethoprophos	$C_8H_{19}O_2PS_2$	13194-48-4
41	苯线磷	fenamiphos	$C_{13}H_{22}NO_3PS$	22224-92-6
42	苯线磷砜	fenamiphos sulfone	$C_{13}H_{22}NO_5PS$	31972-44-8
43	苯线磷亚砜	fenamiphos sulfoxide	$C_{13}H_{22}NO_4PS$	31972-43-7
44	氯苯嘧啶醇	fenarimol	$C_{17}H_{12}Cl_2N_2O$	60168-88-9
45	腈苯唑	fenbuconazole	$C_{19}H_{17}ClN_4$	114369-43-6
46	仲丁威	fenobucarb	$C_{12}H_{17}NO_2$	3766-81-2
47	甲氰菊酯	fenpropathrin	$C_{22}H_{23}NO_3$	39515-41-8
48	倍硫磷	fenthion	$C_{10}H_{15}O_3PS_2$	55-38-9
49	氧倍硫磷	fenthion oxon	$C_{10}H_{15}O_4PS$	6552-12-1
50	氧倍硫磷砜	fenthion oxon sulfone	$C_{10}H_{15}O_6PS$	14086-35-2
51	氧倍硫磷亚砜	fenthion oxon sulfoxide	$C_{10}H_{15}O_5PS$	6552-13-2
52	倍硫磷砜	fenthion sulfone	$C_{10}H_{15}O_5PS_2$	3761-42-0
53	倍硫磷亚砜	fenthion sulfoxide	$C_{10}H_{15}O_4PS_2$	3761-41-9
54	地虫硫磷	fonofos	$C_{10}H_{15}OPS_2$	944-22-9
55	噻唑磷	fosthiazate	$C_9H_{18}NO_3PS_2$	98886-44-3
56	庚烯磷	heptenophos	$C_9H_{12}ClO_4P$	23560-59-0
57	己唑醇	hexaconazole	$C_{14}H_{17}Cl_2N_3O$	79983-71-4
58	抑霉唑	imazalil	$C_{14}H_{14}Cl_2N_2O$	35554-44-0
59	茚虫威	indoxacarb	$C_{22}H_{17}ClF_3N_3O_7$	144171-61-9
60	异稻瘟净	iprobenfos	$C_{13}H_{21}O_3PS$	26087-47-8
61	缬霉威	iprovalicarb	$C_{18}H_{28}N_2O_3$	140923-17-7
62	氯唑磷	isazofos	$C_9H_{17}ClN_3O_3PS$	42509-80-8
63	水胺硫磷	isocarbophos	$C_{11}H_{16}NO_4PS$	24353-61-5
64	异柳磷	isofenphos	$C_{15}H_{24}NO_4PS$	25311-71-1
65	甲基异柳磷	isofenphos-methyl	$C_{14}H_{22}NO_4PS$	99675-03-3
66	氧异柳磷	isofenphos oxon	$C_{15}H_{24}NO_5P$	31120-85-1
67	唑磷	isoxathion	$C_{13}H_{16}NO_4PS$	18854-01-8
68	醚菌酯	kresoxim-methyl	$C_{18}H_{19}NO_4$	143390-89-0
69	利谷隆	linuron	$C_9H_{10}Cl_2N_2O_2$	330-55-2
70	马拉氧磷	malaoxon	$C_{10}H_{19}O_7PS$	1634-78-2
71	马拉硫磷	malathion	$C_{10}H_{19}O_6PS_2$	121-75-5
72	地胺磷	mephosfolan	$C_8H_{16}NO_3PS_2$	950-10-7
73	甲胺磷	methamidophos	$C_2H_8NO_2PS$	10265-92-6
74	杀扑磷	methidathion	$C_6H_{11}N_2O_4PS_3$	950-37-8
75	异丙甲草胺	metolachlor	$C_{15}H_{22}ClNO_2$	51218-45-2
76	速灭威	metolcarb	$C_9H_{11}NO_2$	1129-41-5

表 A.1 （续）

序号	中文名	英文名	分子式	CAS 号
77	速灭磷	mevinphos	$C_7H_{13}O_6P$	7786-34-7
78	久效磷	monocrotophos	$C_7H_{14}NO_5P$	6923-22-4
79	敌草胺	napropamide	$C_{17}H_{21}NO_2$	15299-99-7
80	氧乐果	omethoate	$C_5H_{12}NO_4PS$	1113-02-6
81	多效唑	paclobutrazol	$C_{15}H_{20}ClN_3O$	76738-62-0
82	对氧磷	paraoxon	$C_{10}H_{14}NO_6P$	311-45-5
83	甲基对氧磷	paraoxon-methyl	$C_8H_{10}NO_6P$	950-35-6
84	二甲戊灵	pendimethalin	$C_{13}H_{19}N_3O_4$	40487-42-1
85	稻丰散	phenthoate	$C_{12}H_{17}O_4PS_2$	2597-03-7
86	甲拌磷	phorate	$C_7H_{17}O_2PS_3$	298-02-2
87	甲拌磷砜	phorate sulfone	$C_7H_{17}O_4PS_3$	2588-04-7
88	甲拌磷亚砜	phorate sulfoxide	$C_7H_{17}O_3PS_3$	2588-03-6
89	去甲基抗蚜威	desmethyl-pirimicarb	$C_{10}H_{16}N_4O_2$	30614-22-3
90	伏杀硫磷	phosalone	$C_{12}H_{15}ClNO_4PS_2$	2310-17-0
91	硫环磷	phosfolan	$C_7H_{14}NO_3PS_2$	947-02-4
92	亚胺硫磷	phosmet	$C_{11}H_{12}NO_4PS_2$	732-11-6
93	磷胺	phosphamidon	$C_{10}H_{19}ClNO_5P$	13171-21-6
94	啶氧菌酯	picoxystrobin	$C_{18}H_{16}F_3NO_4$	117428-22-5
95	增效醚	piperonyl butoxide	$C_{19}H_{30}O_5$	51-03-6
96	哌草磷	piperophos	$C_{14}H_{28}NO_3PS_2$	24151-93-7
97	抗蚜威	pirimicarb	$C_{11}H_{18}N_4O_2$	23103-98-2
98	嘧啶磷	pirimiphos-ethyl	$C_{13}H_{24}N_3O_3PS$	23505-41-1
99	甲基嘧啶磷	pirimiphos-methyl	$C_{11}H_{20}N_3O_3PS$	29232-93-7
100	丙草胺	pretilachlor	$C_{17}H_{26}ClNO_2$	51218-49-6
101	咪鲜胺	prochloraz	$C_{15}H_{16}Cl_3N_3O_2$	67747-09-5
102	丙溴磷	profenofos	$C_{11}H_{15}BrClO_3PS$	41198-08-7
103	霜霉威	propamocarb	$C_9H_{20}N_2O_2$	24579-73-5
104	敌稗	propanil	$C_9H_9Cl_2NO$	709-98-8
105	丙虫磷	propaphos	$C_{13}H_{21}O_4PS$	7292-16-2
106	炔螨特	propargite	$C_{19}H_{26}O_4S$	2312-35-8
107	胺丙畏	propetamphos	$C_{10}H_{20}NO_4PS$	31218-83-4
108	丙环唑	propiconazole	$C_{15}H_{17}Cl_2N_3O_2$	60207-90-1
109	残杀威	propoxur	$C_{11}H_{15}NO_3$	114-26-1
110	吡唑醚菌酯	pyraclostrobin	$C_{19}H_{18}ClN_3O_4$	175013-18-0
111	吡嘧磷	pyrazophos	$C_{14}H_{20}N_3O_5PS$	13457-18-6
112	哒螨灵	pyridaben	$C_{19}H_{25}ClN_2OS$	96489-71-3
113	啶斑肟	pyrifenox	$C_{14}H_{12}Cl_2N_2O$	88283-41-4
114	喹硫磷	quinalphos	$C_{12}H_{15}N_2O_3PS$	13593-03-8
115	治螟磷	sulfotep	$C_8H_{20}O_5P_2S_2$	3689-24-5
116	氟胺氰菊酯	tau-fluvalinate	$C_{26}H_{22}ClF_3N_2O_3$	102851-06-9
117	戊唑醇	tebuconazole	$C_{16}H_{22}ClN_3O$	107534-96-3

表 A.1 （续）

序号	中文名	英文名	分子式	CAS 号
118	特丁硫磷	terbufos	$C_9H_{21}O_2PS_3$	13071–79–9
119	特丁硫磷砜	terbufos sulfone	$C_9H_{21}O_4PS_3$	56070–16–7
120	特丁硫磷亚砜	terbufos sulfoxide	$C_9H_{21}O_3PS_3$	10548–10–4
121	杀虫畏	tetrachlorvinphos	$C_{10}H_9Cl_4O_4P$	961–11–5
122	胺菊酯	tetramethrin	$C_{19}H_{25}NO_4$	7696–12–0
123	三唑酮	triadimefon	$C_{14}H_{16}ClN_3O_2$	43121–43–3
124	三唑醇	triadimenol	$C_{14}H_{18}ClN_3O_2$	55219–65–3
125	三唑磷	triazophos	$C_{12}H_{16}N_3O_3PS$	24017–47–8
126	三环唑	tricyclazole	$C_9H_7N_3S$	41814–78–2
127	蚜灭磷	vamidothion	$C_8H_{18}NO_4PS_2$	2275–23–2
128	苯草醚	aclonifen	$C_{12}H_9ClN_2O_3$	74070–46–5
129	二丙烯草胺	allidochlor	$C_8H_{12}ClNO$	93–71–0
130	莠灭净	ametryn	$C_9H_{17}N_5S$	834–12–8
131	灭害威	aminocarb	$C_{11}H_{16}N_2O_2$	2032–59–9
132	莎稗磷	anilofos	$C_{13}H_{19}ClNO_3PS_2$	64249–01–0
133	脱乙基莠去津	atrazine–desethyl	$C_6H_{10}ClN_5$	6190–65–4
134	叠氮津	aziprotryne	$C_7H_{11}N_7S$	4658–28–0
135	苯霜灵	benalaxyl	$C_{20}H_{23}NO_3$	71626–11–4
136	虫威	bendiocarb	$C_{11}H_{13}NO_4$	22781–23–3
137	麦锈灵	benodanil	$C_{13}H_{10}INO$	15310–01–7
138	解草酮	benoxacor	$C_{11}H_{11}Cl_2NO_2$	98730–04–2
139	新燕灵	benzoylprop–ethyl	$C_{18}H_{17}Cl_2NO_3$	22212–56–2
140	联苯三唑醇	bitertanol	$C_{20}H_{23}N_3O_2$	55179–31–2
141	啶酰菌胺	boscalid	$C_{18}H_{12}Cl_2N_2O$	188425–85–6
142	除草定	bromacil	$C_9H_{13}BrN_2O_2$	314–40–9
143	糠菌唑	bromuconazole	$C_{13}H_{12}BrCl_2N_3O$	116255–48–2
144	乙嘧酚磺酸酯	bupirimate	$C_{13}H_{24}N_4O_3S$	41483–43–6
145	氟丙嘧草酯	butafenacil	$C_{20}H_{18}ClF_3N_2O_6$	134605–64–4
146	萎锈灵	carboxin	$C_{12}H_{13}NO_2S$	5234–68–4
147	杀虫脒	chlordimeform	$C_{10}H_{13}ClN_2$	6164–98–3
148	氯草敏	chloridazon	$C_{10}H_8ClN_3O$	1698–60–8
149	氯磺隆	chlorsulfuron	$C_{12}H_{12}ClN_5O_4S$	64902–72–3
150	异草酮	clomazone	$C_{12}H_{14}ClNO_2$	81777–89–1
151	氰草津	cyanazine	$C_9H_{13}ClN_6$	21725–46–2
152	环草敌	cycloate	$C_{11}H_{21}NOS$	1134–23–2
153	环莠隆	cycluron	$C_{11}H_{22}N_2O$	2163–69–1
154	环氟菌胺	cyflufenamid	$C_{20}H_{17}F_5N_2O_2$	180409–60–3
155	环丙唑醇	cyproconazole	$C_{15}H_{18}ClN_3O$	94361–06–5
156	灭蝇胺	cyromazine	$C_6H_{10}N_6$	66215–27–8
157	避蚊胺	diethyltoluamide	$C_{12}H_{17}NO$	134–62–3
158	二嗪磷	diazinon	$C_{12}H_{21}N_2O_3PS$	333–41–5

表 A.1 （续）

序号	中文名	英文名	分子式	CAS 号
159	烯丙酰草胺	dichlormid	$C_8H_{11}Cl_2NO$	37764–25–3
160	禾草灵	diclofop–methyl	$C_{16}H_{14}Cl_2O_4$	51338–27–3
161	苯醚甲环唑	difenoconazole	$C_{19}H_{17}Cl_2N_3O_3$	119446–68–3
162	枯莠隆	difenoxuron	$C_{16}H_{18}N_2O_3$	14214–32–5
163	二甲草胺	dimethachlor	$C_{13}H_{18}ClNO_2$	50563–36–5
164	异戊乙净	dimethametryn	$C_{11}H_{21}N_5S$	22936–75–0
165	二甲吩噻草胺	dimethenamid	$C_{12}H_{18}ClNO_2S$	87674–68–8
166	烯酰吗啉	dimethomorph	$C_{21}H_{22}ClNO_4$	110488–70–5
167	氟环唑	epoxiconazole	$C_{17}H_{13}ClFN_3O$	133855–98–8
168	乙环唑	etaconazole	$C_{14}H_{15}Cl_2N_3O_2$	60207–93–4
169	乙氧呋草黄	ethofumesate	$C_{13}H_{18}O_5S$	26225–79–6
170	乙氧喹啉	ethoxyquin	$C_{14}H_{19}NO$	91–53–2
171	醚菊酯	etofenprox	$C_{25}H_{28}O_3$	80844–07–1
172	乙螨唑	etoxazole	$C_{21}H_{23}F_2NO_2$	153233–91–1
173	咪唑菌酮	fenamidone	$C_{17}H_{17}N_3OS$	161326–34–7
174	喹螨醚	fenazaquin	$C_{20}H_{22}N_2O$	120928–09–8
175	拌种咯	fenpiclonil	$C_{11}H_6Cl_2N_2$	74738–17–3
176	苯锈啶	fenpropidin	$C_{19}H_{31}N$	67306–00–7
177	丁苯吗啉	fenpropimorph	$C_{20}H_{33}NO$	67564–91–4
178	非草隆	fenuron	$C_9H_{12}N_2O$	101–42–8
179	麦草氟异丙酯	flamprop–isopropyl	$C_{19}H_{19}ClFNO_3$	52756–22–6
180	精吡氟禾草灵	fluazifop–p–butyl	$C_{15}H_{12}F_3NO_4$	69335–91–7
181	吡氟禾草灵	fluazifop–butyl	$C_{19}H_{20}F_3NO_4$	69806–50–4
182	氟噻草胺	flufenacet	$C_{14}H_{13}F_4N_3O_2S$	142459–58–3
183	氟虫脲	flufenoxuron	$C_{21}H_{11}ClF_6N_2O_3$	101463–69–8
184	丙炔氟草胺	flumioxazin	$C_{19}H_{15}FN_2O_4$	103361–09–7
185	氟吡菌酰胺	fluopyram	$C_{16}H_{11}ClF_6N_2O$	658066–35–4
186	乙羧氟草醚	fluoroglycofen–ethyl	$C_{18}H_{13}ClF_3NO_7$	77501–90–7
187	氟喹唑	fluquinconazole	$C_{16}H_8Cl_2FN_5O$	136426–54–5
188	氟咯草酮	flurochloridone	$C_{12}H_{10}Cl_2F_3NO$	61213–25–0
189	氟唑菌酰胺	fluxapyroxad	$C_{18}H_{12}F_5N_3O$	907204–31–3
190	呋霜灵	furalaxyl	$C_{17}H_{19}NO_4$	57646–30–7
191	环嗪酮	hexazinone	$C_{12}H_{20}N_4O_2$	51235–04–2
192	咪草酯	imazamethabenz–methyl	$C_{16}H_{20}N_2O_3$	81405–85–8
193	丁咪酰胺	isocarbamide	$C_8H_{15}N_3O_2$	30979–48–7
194	丁嗪草酮	isomethiozin	$C_{12}H_{20}N_4OS$	57052–04–7
195	异丙威	isoprocarb	$C_{11}H_{15}NO_2$	2631–40–5
196	异乐灵	isopropalin	$C_{15}H_{23}N_3O_4$	33820–53–0
197	稻瘟灵	isoprothiolane	$C_{12}H_{18}O_4S_2$	50512–35–1
198	异丙隆	isoproturon	$C_{12}H_{18}N_2O$	34123–59–6
199	双苯唑酸乙酯	isoxadifen–ethyl	$C_{18}H_{17}NO_3$	163520–33–0

表 A.1 （续）

序号	中文名	英文名	分子式	CAS 号
200	苯噻酰草胺	mefenacet	$C_{16}H_{14}N_2O_2S$	73250-68-7
201	吡唑解草酯	mefenpyr-diethyl	$C_{16}H_{18}Cl_2N_2O_4$	135590-91-9
202	嘧菌胺	mepanipyrim	$C_{14}H_{13}N_3$	110235-47-7
203	灭锈胺	mepronil	$C_{17}H_{19}NO_2$	55814-41-0
204	甲霜灵	metalaxyl	$C_{15}H_{21}NO_4$	57837-19-1
205	苯嗪草酮	metamitron	$C_{10}H_{10}N_4O$	41394-05-2
206	吡唑草胺	metazachlor	$C_{14}H_{16}ClN_3O$	67129-08-2
207	叶菌唑	metconazole	$C_{17}H_{22}ClN_3O$	125116-23-6
208	氟虫腈	fipronil	$C_{12}H_4Cl_2F_6N_4OS$	120068-37-3
209	氟虫腈砜	fipronil sulfone	$C_{12}H_4Cl_2F_6N_4O_2S$	120068-36-2
210	氟虫腈亚砜	fipronil sulfoxide	$C_{12}H_4Cl_2F_6N_4S$	120067-83-6
211	氟甲腈	fipronil desulfinyl	$C_{12}H_4Cl_2F_6N_4$	205650-65-3
212	氟啶虫酰胺	flonicamid	$C_9H_6F_3N_3O$	158062-67-0
213	氟铃脲	hexaflumuron	$C_{16}H_8Cl_2F_6N_2O_3$	86479-06-3
214	异唑草酮	isoxaflutole	$C_{15}H_{12}F_3NO_4S$	141112-29-0
215	甲基苯噻隆	methabenzthiazuron	$C_{10}H_{11}N_3OS$	18691-97-9
216	呋菌胺	methfuroxam	$C_{14}H_{15}NO_2$	28730-17-8
217	甲氧丙净	methoprotryne	$C_{11}H_{21}N_5OS$	841-06-5
218	嗪草酮	metribuzin	$C_8H_{14}N_4OS$	21087-64-9
219	禾草敌	molinate	$C_9H_{17}NOS$	2212-67-1
220	庚酰草胺	monalide	$C_{13}H_{18}ClNO$	7287-36-7
221	绿谷隆	monolinuron	$C_9H_{11}ClN_2O_2$	1746-81-2
222	腈菌唑	myclobutanil	$C_{15}H_{17}ClN_4$	88671-89-0
223	氟草敏	norflurazon	$C_{12}H_9ClF_3N_3O$	27314-13-2
224	氟酰脲	novaluron	$C_{17}H_9ClF_8N_2O_4$	116714-46-6
225	氟苯嘧啶醇	nuarimol	$C_{17}H_{12}ClFN_2O$	63284-71-9
226	呋酰胺	ofurace	$C_{14}H_{16}ClNO_3$	58810-48-3
227	坪草丹	orbencarb	$C_{12}H_{16}ClNOS$	34622-58-7
228	解草腈	oxabetrinil	$C_{12}H_{12}N_2O_3$	74782-23-3
229	草酮	oxadiazon	$C_{15}H_{18}Cl_2N_2O_3$	19666-30-9
230	霜灵	oxadixyl	$C_{14}H_{18}N_2O_4$	77732-09-3
231	氧化萎锈灵	oxycarboxin	$C_{12}H_{13}NO_4S$	5259-88-1
232	异丙草胺	propisochlor	$C_{15}H_{22}ClNO_2$	86763-47-5
233	炔苯酰草胺	propyzamide	$C_{12}H_{11}Cl_2NO$	23950-58-5
234	苄草丹	prosulfocarb	$C_{14}H_{21}NOS$	52888-80-9
235	咯喹酮	pyroquilon	$C_{11}H_{11}NO$	57369-32-1
236	喹禾灵	quizalofop	$C_{17}H_{13}ClN_2O_4$	76578-12-6
237	喹禾灵乙酯	quizalofop-ethyl	$C_{19}H_{17}ClN_2O_4$	76578-14-8
238	吡咪唑	rabenzazole	$C_{12}H_{12}N_4$	40341-04-6
239	苄呋菊酯	resmethrin	$C_{22}H_{26}O_3$	10453-86-8
240	螺螨酯	spirodiclofen	$C_{21}H_{24}Cl_2O_4$	148477-71-8

表 A.1 （续）

序号	中文名	英文名	分子式	CAS 号
241	螺甲螨酯	spiromesifen	$C_{23}H_{30}O_4$	283594–90–1
242	螺虫乙酯	spirotetramat	$C_{21}H_{27}NO_5$	203313–25–1
243	螺虫乙酯–烯醇–葡萄糖苷	spirotetramate–enol–glukosid	$C_{24}H_{33}NO_8$	1172614–86–6
244	螺虫乙酯–酮基–羟基	spirotetramate–keto–hydroxy	$C_{18}H_{23}NO_4$	1172134–11–0
245	螺虫乙酯–单–羟基	spirotetramate–mono–hydroxy	$C_{18}H_{25}NO_3$	1172134–12–1
246	螺环菌胺	spiroxamine	$C_{18}H_{35}NO_2$	118134–30–8
247	吡螨胺	tebufenpyrad	$C_{18}H_{24}ClN_3O$	119168–77–3
248	丁基嘧啶磷	tebupirimfos	$C_{13}H_{23}N_2O_3PS$	96182–53–5
249	牧草胺	tebutam	$C_{15}H_{23}NO$	35256–85–0
250	丁噻隆	tebuthiuron	$C_9H_{16}N_4OS$	34014–18–1
251	特丁通	terbumeton	$C_{10}H_{19}N_5O$	33693–04–8
252	特草灵	terbucarb	$C_{17}H_{27}NO_2$	1918–11–2
253	特丁草净	terbutryn	$C_{10}H_{19}N_5S$	886–50–0
254	四氟醚唑	tetraconazole	$C_{13}H_{11}Cl_2F_4N_3O$	112281–77–3
255	草达津	trietazine	$C_9H_{16}ClN_5$	1912–26–1
256	肟菌酯	trifloxystrobin	$C_{20}H_{19}F_3N_2O_4$	141517–21–7
257	氟菌唑	triflumizole	$C_{15}H_{15}ClF_3N_3O$	68694–11–1
258	灭菌唑	triticonazole	$C_{17}H_{20}ClN_3O$	131983–72–7
259	烯效唑	uniconazole	$C_{15}H_{18}ClN_3O$	83657–22–1
260	灭草敌	vernolate	$C_{10}H_{21}NOS$	1929–77–7
261	苯酰菌胺	zoxamide	$C_{14}H_{16}Cl_3NO_2$	156052–68–5
262	氟苯脲	teflubenzuron	$C_{14}H_6Cl_2F_4N_2O_2$	83121–18–0
263	二氧威	dioxacarb	$C_{11}H_{13}NO_4$	6988–21–2
264	双苯酰草胺	diphenamid	$C_{16}H_{17}NO$	957–51–7
265	异丙净	dipropetryn	$C_{11}H_{21}N_5S$	4147–51–7
266	氟硫草定	dithiopyr	$C_{15}H_{16}F_5NO_2S_2$	97886–45–8
267	十二环吗啉	dodemorph	$C_{18}H_{35}NO$	1593–77–7
268	环酰菌胺	fenhexamid	$C_{14}H_{17}Cl_2NO_2$	126833–17–8
269	苯硫威	fenothiocarb	$C_{13}H_{19}NO_2S$	62850–32–2
270	唑禾草灵	fenoxaprop–ethyl	$C_{18}H_{16}ClNO_5$	66441–23–4
271	苯氧威	fenoxycarb	$C_{17}H_{19}NO_4$	79127–80–3
272	氯氟吡氧乙酸	fluroxypyr	$C_7H_5Cl_2FN_2O_3$	69377–81–7
273	氯氟吡氧乙酸异辛酯	fluroxypyr–meptyl	$C_{15}H_{21}Cl_2FN_2O_3$	81406–37–3
274	氟硅唑	flusilazole	$C_{16}H_{15}F_2N_3Si$	85509–19–9
275	氟酰胺	flutolanil	$C_{17}H_{16}F_3NO_2$	66332–96–5
276	粉唑醇	flutriafol	$C_{16}H_{13}F_2N_3O$	76674–21–0
277	麦穗宁	fuberidazole	$C_{11}H_8N_2O$	3878–19–1
278	呋线威	furathiocarb	$C_{18}H_{26}N_2O_5S$	65907–30–4
279	拌种胺	furmecyclox	$C_{14}H_{21}NO_3$	60568–05–0
280	氟吡禾灵	haloxyfop	$C_{15}H_{11}ClF_3NO_4$	69806–34–4

表 A.1 （续）

序号	中文名	英文名	分子式	CAS 号
281	高效氟吡甲禾灵	haloxyfop-P- methyl	$C_{19}H_{19}ClF_3NO_5$	87237-48-7
282	氟吡甲禾灵	haloxyfop-methyl	$C_{16}H_{13}ClF_3NO_4$	69806-40-2
283	克草猛	pebulate	$C_{10}H_{21}NOS$	1114-71-2
284	戊菌唑	penconazole	$C_{13}H_{15}Cl_2N_3$	66246-88-6
285	氟吡草胺	picolinafen	$C_{19}H_{12}F_4N_2O_2$	137641-05-5
286	扑草净	prometryn	$C_{10}H_{19}N_5S$	7287-19-6
287	毒草胺	propachlor	$C_{11}H_{14}ClNO$	1918-16-7
288	扑灭津	propazine	$C_9H_{16}ClN_5$	139-40-2
289	环酯草醚	pyriftalid	$C_{15}H_{14}N_2O_4S$	135186-78-6
290	嘧霉胺	pyrimethanil	$C_{12}H_{13}N_3$	53112-28-0
291	吡丙醚	pyriproxyfen	$C_{20}H_{19}NO_3$	95737-68-1
292	灭藻醌	quinoclamine	$C_{10}H_6ClNO_2$	2797-51-5
293	喹氧灵	quinoxyfen	$C_{15}H_8Cl_2FNO$	124495-18-7
294	仲丁通	secbumeton	$C_{10}H_{19}N_5O$	26259-45-0
295	西玛津	simazine	$C_7H_{12}ClN_5$	122-34-9
296	西草净	simetryn	$C_8H_{15}N_5S$	1014-70-6
297	禾草丹	thiobencarb	$C_{12}H_{16}ClNOS$	28249-77-6
298	甲基立枯磷	tolclofos-methyl	$C_9H_{11}Cl_2O_3PS$	57018-04-9
299	唑虫酰胺	tolfenpyrad	$C_{21}H_{22}ClN_3O_2$	129558-76-5
300	野麦畏	triallate	$C_{10}H_{16}Cl_3NOS$	2303-17-5
301	敌乐胺	dinitramine	$C_{11}H_{13}F_3N_4O_4$	29091-05-2
302	丙硫多菌灵	albendazole	$C_{12}H_{15}N_3O_2S$	54965-21-8
303	多菌灵	carbendazim	$C_9H_9N_3O_2$	10605-21-7
304	双酰草胺	carbetamide	$C_{12}H_{16}N_2O_3$	16118-49-3
305	甲菌定	dimethirimol	$C_{11}H_{19}N_3O$	5221-53-4
306	磺噻隆	ethidimuron	$C_7H_{12}N_4O_3S_2$	30043-49-3
307	稻瘟酰胺	fenoxanil	$C_{15}H_{18}Cl_2N_2O_2$	115852-48-7
308	唑螨酯	fenpyroximate	$C_{24}H_{27}N_3O_4$	134098-61-6
309	氟吗啉	flumorph	$C_{21}H_{22}FNO_4$	211867-47-9
310	呋草酮	flurtamone	$C_{18}H_{14}F_3NO_2$	96525-23-4
311	氟蚁腙	hydramethylnon	$C_{25}H_{24}F_6N_4$	67485-29-4
312	恶霉灵	hymexazol	$C_4H_5NO_2$	10004-44-1
313	甲氧咪草烟	imazamox	$C_{15}H_{19}N_3O_4$	114311-32-9
314	异酰草胺	isoxaben	$C_{18}H_{24}N_2O_4$	82558-50-7
315	甲氧虫酰肼	methoxyfenozide	$C_{22}H_{28}N_2O_3$	161050-58-4
316	烯啶虫胺	nitenpyram	$C_{11}H_{15}ClN_4O_2$	150824-47-8
317	嘧草醚	pyriminobac-methyl	$C_{17}H_{19}N_3O_6$	147411-69-6
318	鱼藤酮	rotenone	$C_{23}H_{22}O_6$	83-79-4
319	苯嘧磺草胺	saflufenacil	$C_{17}H_{17}ClF_4N_4O_5S$	372137-35-4
320	烯禾啶	sethoxydim	$C_{17}H_{29}NO_3S$	74051-80-2
321	噻菌灵	thiabendazole	$C_{10}H_7N_3S$	148-79-8

表 A.1 （续）

序号	中文名	英文名	分子式	CAS 号
322	噻虫嗪	thiamethoxam	$C_8H_{10}ClN_5O_3S$	153719-23-4
323	久效威亚砜	thiofanox sulfoxide	$C_9H_{18}N_2O_3S$	39184-27-5
324	硫菌灵	thiophanate	$C_{14}H_{18}N_4O_4S_2$	23564-06-9
325	敌百虫	trichlorfon	$C_4H_8Cl_3O_4P$	52-68-6
326	丁酰肼	daminozide	$C_6H_{12}N_2O_3$	1596-84-5
327	3-羟基克百威	3-hydroxy-carbofuran	$C_{12}H_{15}NO_4$	16655-82-6
328	啶虫脒	acetamiprid	$C_{10}H_{11}ClN_4$	135410-20-7
329	涕灭威	aldicarb	$C_7H_{14}N_2O_2S$	116-06-3
330	涕灭威亚砜	aldicarb sulfoxide	$C_7H_{14}N_2O_3S$	1646-87-3
331	涕灭威砜	aldicarb sulfone	$C_7H_{14}N_2O_4S$	1646-88-4
332	唑嘧菌胺	ametoctradin	$C_{15}H_{25}N_5$	865318-97-4
333	氨唑草酮	amicarbazone	$C_{10}H_{19}N_5O_2$	129909-90-6
334	双甲脒	amitraz	$C_{19}H_{23}N_3$	33089-61-1
335	阿维菌素 B1a	abamectin B1a	$C_{48}H_{72}O_{14}$	65195-55-3
336	苄嘧磺隆	bensulfuron-methyl	$C_{16}H_{18}N_4O_7S$	83055-99-6
337	克百威	carbofuran	$C_{12}H_{15}NO_3$	1563-66-2
338	氯虫苯甲酰胺	chlorantraniliprole	$C_{18}H_{14}BrCl_2N_5O_2$	500008-45-7
339	环虫酰肼	chromafenozide	$C_{24}H_{30}N_2O_3$	143807-66-3
340	四螨嗪	clofentezine	$C_{14}H_8Cl_2N_4$	74115-24-5
341	噻虫胺	clothianidin	$C_6H_8ClN_5O_2S$	210880-92-5
342	丁醚脲	diafenthiuron	$C_{23}H_{32}N_2OS$	80060-09-9
343	除虫脲	diflubenzuron	$C_{14}H_9ClF_2N_2O_2$	35367-38-5
344	甲氟磷	dimefox	$C_4H_{12}FN_2OP$	115-26-4
345	唑隆	dimefuron	$C_{15}H_{19}ClN_4O_3$	34205-21-5
346	醚菌胺	dimoxystrobin	$C_{19}H_{22}N_2O_3$	149961-52-4
347	呋虫胺	dinotefuran	$C_7H_{14}N_4O_3$	165252-70-0
348	敌草隆	diuron	$C_9H_{10}Cl_2N_2O$	330-54-1
349	甲氨基阿维菌素苯甲酸盐 B1a	emamectin benzoate B1a	$C_{49}H_{75}NO_{13}$	121124-29-6
350	甲基胺苯磺隆	ethametsulfuron-methyl	$C_{15}H_{18}N_6O_6S$	97780-06-8
351	乙虫清	ethiprole	$C_{13}H_9Cl_2F_3N_4OS$	181587-01-9
352	伏草隆	fluometuron	$C_{10}H_{11}F_3N_2O$	2164-17-2
353	氟吡菌胺	fluopicolide	$C_{14}H_8Cl_3F_3N_2O$	239110-15-7
354	氟嘧菌酯	fluoxastrobin	$C_{21}H_{16}ClFN_4O_5$	193740-76-0
355	嗪草酸甲酯	fluthiacet-methyl	$C_{15}H_{15}ClFN_3O_3S_2$	117337-19-6
356	氯吡脲	forchlorfenuron	$C_{12}H_{10}ClN_3O$	68157-60-8
357	噻螨酮	hexythiazox	$C_{17}H_{21}ClN_2O_2S$	78587-05-0
358	甲咪唑烟酸	imazapic	$C_{14}H_{17}N_3O_3$	104098-48-8
359	咪唑烟酸	imazapyr	$C_{13}H_{15}N_3O_3$	81334-34-1
360	咪唑喹啉酸	imazaquin	$C_{17}H_{17}N_3O_3$	81335-37-7
361	咪唑乙烟酸	imazethapyr	$C_{15}H_{19}N_3O_3$	81335-77-5

表 A.1 （续）

序号	中文名	英文名	分子式	CAS 号
362	吡虫啉	imidacloprid	$C_9H_{10}ClN_5O_2$	138261–41–3
363	异唑隆	isouron	$C_{10}H_{17}N_3O_2$	55861–78–4
364	双炔酰菌胺	mandipropamid	$C_{23}H_{22}ClNO_4$	374726–62–2
365	磺草胺唑	metosulam	$C_{14}H_{13}Cl_2N_5O_4S$	139528–85–1
366	甲氧隆	metoxuron	$C_{10}H_{13}ClN_2O_2$	19937–59–8
367	苯菌酮	metrafenone	$C_{19}H_{21}BrO_5$	220899–03–6
368	杀线威	oxamyl	$C_7H_{13}N_3O_3S$	23135–22–0
369	杀线威肟	oxamyl–oxime	$C_5H_{10}N_2O_2S$	30558–43–1
370	甲基硫环磷	phosfolan–methyl	$C_5H_{10}NO_3PS_2$	5120–23–0
371	唑啉草酯	pinoxaden	$C_{23}H_{32}N_2O_4$	243973–20–8
372	吡蚜酮	pymetrozine	$C_{10}H_{11}N_5O$	123312–89–0
373	嘧螨醚	pyrimidifen	$C_{20}H_{28}ClN_3O_2$	105779–78–0
374	甲磺草胺	sulfentrazone	$C_{11}H_{10}Cl_2F_2N_4O_3S$	122836–35–5
375	虫酰肼	tebufenozide	$C_{22}H_{28}N_2O_2$	112410–23–8
376	噻虫啉	thiacloprid	$C_{10}H_9ClN_4S$	111988–49–9
377	噻吩磺隆	thifensulfuron–methyl	$C_{12}H_{13}N_5O_6S_2$	79277–27–3
378	甲基硫菌灵	thiophanate–methyl	$C_{12}H_{14}N_4O_4S_2$	23564–05–8
379	杀铃脲	triflumuron	$C_{15}H_{10}ClF_3N_2O_3$	64628–44–0
380	吲唑磺菌胺	amisulbrom	$C_{13}H_{13}BrFN_5O_4S_2$	348635–87–0
381	保棉磷	azinphos–methyl	$C_{10}H_{12}N_3O_3PS_2$	86–50–0
382	草除灵乙酯	benazolin–ethyl ester	$C_{11}H_{10}ClNO_3S$	25059–80–7
383	吡草酮	benzofenap	$C_{22}H_{20}Cl_2N_2O_3$	82692–44–2
384	双草醚	bispyribac–sodium	$C_{19}H_{18}N_4O_8$	125401–75–4
385	联苯吡菌胺	bixafen	$C_{18}H_{12}Cl_2F_3N_3O$	581809–46–3
386	溴苯烯磷	bromfenvinphos	$C_{12}H_{14}BrCl_2O_4P$	33399–00–7
387	溴莠敏	brompyrazon	$C_{10}H_8BrN_3O$	3042–84–0
388	丁酮砜威	butoxycarboxim	$C_7H_{14}N_2O_4S$	34681–23–7
389	氯溴隆	chlorbromuron	$C_9H_{10}BrClN_2O_2$	13360–45–7
390	枯草隆	chloroxuron	$C_{15}H_{15}ClN_2O_2$	1982–47–4
391	杀鼠醚	coumatetralyl	$C_{19}H_{16}O_3$	5836–29–3
392	杀鼠嘧啶	crimidine	$C_7H_{10}ClN_3$	535–89–7
393	丰索磷	fensulfothion	$C_{11}H_{17}O_4PS_2$	115–90–2
394	麦草伏甲酯	flamprop–methyl	$C_{17}H_{15}ClFNO_3$	52756–25–9
395	依维菌素	ivermectin	$C_{48}H_{74}O_{14}$	70288–86–7
396	氯磺酰草胺	mefluidide	$C_{11}H_{13}F_3N_2O_3S$	53780–34–0
397	脱氨基苯嗪草酮	metamitron–desamino	$C_{10}H_9N_3O$	36993–94–9
398	磺乐灵	nitralin	$C_{13}H_{19}N_3O_6S$	4726–14–1
399	氨磺灵	oryzalin	$C_{12}H_{18}N_4O_6S$	19044–88–3
400	嗪草酮	oxaziclomefone	$C_{20}H_{19}Cl_2NO_2$	153197–14–9
401	多杀霉素 A	spinosad A	$C_{41}H_{65}NO_{10}$	131929–60–7
402	多杀霉素 D	spinosad D	$C_{42}H_{67}NO_{10}$	131929–63–0

表 A.1 （续）

序号	中文名	英文名	分子式	CAS 号
403	磺草酮	sulcotrione	$C_{14}H_{13}ClO_5S$	99105–77–8
404	氟啶虫胺腈	sulfoxaflor	$C_{10}H_{10}F_3N_3OS$	946578–00–3
405	噻苯隆	thidiazuron	$C_9H_8N_4OS$	51707–55–2
406	咪唑嗪	triazoxide	$C_{10}H_6ClN_5O$	72459–58–6
407	氟苯虫酰胺	flubendiamide	$C_{23}H_{22}F_7IN_2O_4S$	272451–65–7
408	虱螨脲	lufenuron	$C_{17}H_8Cl_2F_8N_2O_3$	103055–07–8
409	杀鼠灵	warfarin	$C_{19}H_{16}O_4$	81–81–2
410	赛硫磷	amidithion	$C_7H_{16}NO_4PS_2$	919–76–6
411	苯螨特	benzoximate	$C_{18}H_{18}ClNO_5$	29104–30–1
412	炔草隆	buturon	$C_{12}H_{13}ClN_2O$	3766–60–7
413	丁草敌	butylate	$C_{11}H_{23}NOS$	2008–41–5
414	醚磺隆	cinosulfuron	$C_{15}H_{19}N_5O_7S$	94593–91–6
415	解草酯	cloquintocet–mexyl	$C_{18}H_{22}ClNO_3$	99607–70–2
416	丁香菌酯	coumoxystrobin	$C_{26}H_{28}O_6$	850881–70–8
417	苄草隆	cumyluron	$C_{17}H_{19}ClN_2O$	99485–76–4
418	溴氰虫酰胺	cyantraniliprole	$C_{19}H_{14}BrClN_6O_2$	736994–63–1
419	环丙嘧磺隆	cyclosulfamuron	$C_{17}H_{19}N_5O_6S$	136849–15–5
420	赛灭磷	cythioate	$C_8H_{12}NO_5PS_2$	115–93–5
421	硫酮菌唑	prothioconazol–desthio	$C_{14}H_{15}Cl_2N_3O$	120983–64–4
422	氯亚磷	dialifos	$C_{14}H_{17}ClNO_4PS_2$	10311–84–9
423	哌草丹	dimepiperate	$C_{15}H_{21}NOS$	61432–55–1
424	多拉菌素	doramectin	$C_{50}H_{74}O_{14}$	117704–25–3
425	噻唑菌胺	ethaboxam	$C_{14}H_{16}N_4OS_2$	162650–77–3
426	硫草敌	ethiolate	$C_7H_{15}NOS$	2941–55–1
427	乙氧磺隆	ethoxysulfuron	$C_{15}H_{18}N_4O_7S$	126801–58–9
428	乙氧苯草胺	etobenzanid	$C_{16}H_{15}Cl_2NO_3$	79540–50–4
429	烯肟菌胺	fenaminstrobin	$C_{21}H_{21}Cl_2N_3O_3$	366815–39–6
430	氟啶酮	fluridone	$C_{19}H_{14}F_3NO$	59756–60–4
431	吡唑萘菌胺	isopyrazam	$C_{20}H_{23}F_2N_3O$	881685–58–1
432	噻嗯菊酯	kadethrin	$C_{23}H_{24}O_4S$	58769–20–3
433	乳氟禾草灵	lactofen	$C_{19}H_{15}ClF_3NO_7$	77501–63–4
434	环草定	lenacil	$C_{13}H_{18}N_2O_2$	2164–08–1
435	灭蚜磷	mecarbam	$C_{10}H_{20}NO_5PS_2$	2595–54–2
436	甲基二磺隆	mesosulfuron–methyl	$C_{17}H_{21}N_5O_9S_2$	208465–21–8
437	吡噻菌胺	penthiopyrad	$C_{16}H_{20}F_3N_3OS$	183675–82–3
438	苯醚菊酯	phenothrin	$C_{23}H_{26}O_3$	26002–80–2
439	双唑草腈	pyraclonil	$C_{15}H_{15}ClN_6$	158353–15–2
440	啶磺草胺	pyroxsulam	$C_{14}H_{13}F_3N_6O_5S$	422556–08–9
441	抑食肼	yishijing	$C_{18}H_{20}N_2O_2$	112225–87–3
442	硅氟唑	simeconazole	$C_{14}H_{20}FN_3OSi$	149508–90–7
443	酰嘧磺隆	amidosulfuron	$C_9H_{15}N_5O_7S_2$	120923–37–7

表 A.1 （续）

序号	中文名	英文名	分子式	CAS 号
444	地散磷	bensulide	$C_{14}H_{24}NO_4PS_3$	741-58-2
445	甲基溴苯烯磷	bromfenvinphos-methyl	$C_{10}H_{10}BrCl_2O_4P$	13104-21-7
446	环丙酰菌胺	carpropamid	$C_{15}H_{18}Cl_3NO$	104030-54-8
447	毒虫畏	chlorfenvinphos	$C_{12}H_{14}Cl_3O_4P$	470-90-6
448	灭幼脲	chlorobenzuron	$C_{14}H_{10}Cl_2N_2O_2$	57160-47-1
449	吲哚酮草酯	cinidon-ethyl	$C_{19}H_{17}Cl_2NO_4$	142891-20-1
450	育畜磷	crufomate	$C_{12}H_{19}ClNO_3P$	299-86-5
451	棉隆	dazomet	$C_5H_{10}N_2S_2$	533-74-4
452	甲基内吸磷	demeton-methyl	$C_6H_{15}O_3PS_2$	919-86-8
453	敌草净	desmetryn	$C_8H_{15}N_5S$	1014-69-3
454	胺鲜酯	diethyl aminoethyl hexanoate	$C_{12}H_{25}NO_2$	10369-83-2
455	烯肟菌酯	enestroburin	$C_{22}H_{22}ClNO_4$	238410-11-2
456	胺苯吡菌酮	fenpyrazamine	$C_{17}H_{21}N_3O_2S$	473798-59-3
457	烯虫乙酯	hydroprene	$C_{17}H_{30}O_2$	36557-30-9
458	异菌脲	iprodione	$C_{13}H_{13}Cl_2N_3O_3$	36734-19-7
459	硝磺草酮	mesotrione	$C_{14}H_{13}NO_7S$	104206-82-8
460	溴谷隆	metobromuron	$C_9H_{11}BrN_2O_2$	3060-89-7
461	甲磺隆	metsulfuron-methyl	$C_{14}H_{15}N_5O_6S$	74223-64-6
462	环氧嘧磺隆	oxasulfuron	$C_{17}H_{18}N_4O_6S$	144651-06-9
463	甲氯酰草胺	pentanochlor	$C_{13}H_{18}ClNO$	2307-68-8
464	烯草胺	pethoxamid	$C_{16}H_{22}ClNO_2$	106700-29-2
465	丙硫菌唑	prothioconazole	$C_{14}H_{15}Cl_2N_3OS$	178928-70-6
466	吡草醚	pyraflufen-ethyl	$C_{15}H_{13}Cl_2F_3N_2O_4$	129630-19-9
467	唑胺菌酯	pyrametostrobin	$C_{21}H_{23}N_3O_4$	915410-70-7
468	另丁津	sebuthylazine	$C_9H_{16}ClN_5$	7286-69-3
469	硫丙磷	sulprofos	$C_{12}H_{19}O_2PS_3$	35400-43-2
470	久效威砜	thiofanox sulfone	$C_9H_{18}N_2O_4S$	39184-59-3
471	苯唑草酮	topramezone	$C_{16}H_{17}N_3O_5S$	210631-68-8
472	威菌磷	triamiphos	$C_{12}H_{19}N_6OP$	1031-47-6
473	氟胺磺隆	triflusulfuron-methyl	$C_{17}H_{19}F_3N_6O_6S$	126535-15-7
474	三氟甲磺隆	tritosulfuron	$C_{13}H_9F_6N_5O_4S$	142469-14-5
475	丁虫腈	flufiprole	$C_{16}H_{10}Cl_2F_6N_4OS$	704886-18-0
476	氰氟虫腙	metaflumizone	$C_{24}H_{16}F_6N_4O_2$	139968-49-3
477	杀虫磺	bensultap	$C_{17}H_{21}NO_4S_4$	17606-31-4
478	苯并烯氟菌唑	benzovindiflupyr	$C_{18}H_{15}Cl_2F_2N_3O$	1072957-71-1
479	氯嘧磺隆	chlorimuron-ethyl	$C_{15}H_{15}ClN_4O_6S$	90982-32-4
480	炔草酯	clodinafop-propargyl	$C_{17}H_{13}ClFNO_4$	105512-06-9
481	氯酯磺草胺	cloransulam-methyl	$C_{15}H_{13}ClFN_5O_5S$	147150-35-4
482	氰霜唑	cyazofamid	$C_{13}H_{13}ClN_4O_2S$	120116-88-3
483	双氯磺草胺	diclosulam	$C_{13}H_{10}Cl_2FN_5O_3S$	145701-21-9
484	N，N-二甲基-N’-甲苯磺酰二胺	DMST	$C_9H_{14}N_2O_2S$	66840-71-9

表 A.1 （续）

序号	中文名	英文名	分子式	CAS 号
485	敌菌酮	drazoxolon	$C_{10}H_8ClN_3O_2$	5707-69-7
486	双氟磺草胺	florasulam	$C_{12}H_8F_3N_5O_3S$	145701-23-1
487	氟唑磺隆	flucarbazone-sodium	$C_{12}H_{10}F_3N_4NaO_6S$	181274-17-9
488	氟吡磺隆	flucetosulfuron	$C_{18}H_{22}FN_5O_8S$	412928-75-7
489	唑嘧磺草胺	flumetsulam	$C_{12}H_9F_2N_5O_2S$	98967-40-9
490	甲酰氨基嘧磺隆	foramsulfuron	$C_{17}H_{20}N_6O_7S$	173159-57-4
491	氯虫酰肼	halofenozide	$C_{18}H_{19}ClN_2O_2$	112226-61-6
492	亚胺唑	imibenconazole	$C_{17}H_{13}Cl_3N_4S$	86598-92-7
493	种菌唑	ipconazole	$C_{18}H_{24}ClN_3O$	125225-28-7
494	灭草隆	monuron	$C_9H_{11}ClN_2O$	150-68-5
495	丙炔草酮	oxadiargyl	$C_{15}H_{14}Cl_2N_2O_3$	39807-15-3
496	草酸	propaquizafop	$C_{22}H_{22}ClN_3O_5$	111479-05-1
497	唑菌酯	pyraoxystrobin	$C_{22}H_{21}ClN_2O_4$	862588-11-2
498	苄草唑	pyrazoxyfen	$C_{20}H_{16}Cl_2N_2O_3$	71561-11-0
499	喹草酸	quinmerac	$C_{11}H_8ClNO_2$	90717-03-6
500	氟唑环菌胺	sedaxane	$C_{18}H_{19}F_2N_3O$	874967-67-6
501	环草隆	siduron	$C_{14}H_{20}N_2O$	1982-49-6
502	硅噻菌胺	silthiofam	$C_{13}H_{21}NOSSi$	175217-20-6
503	磺酰磺隆	sulfosulfuron	$C_{16}H_{18}N_6O_7S_2$	141776-32-1
504	双硫磷	temephos	$C_{16}H_{20}O_6P_2S_3$	3383-96-8
505	甲氧噻草胺	thenylchlor	$C_{16}H_{18}ClNO_2S$	96491-05-3
506	硫双威	thiodicarb	$C_{10}H_{18}N_4O_4S_3$	59669-26-0
507	醚苯磺隆	triasulfuron	$C_{14}H_{16}ClN_5O_5S$	82097-50-5
508	嗪氨灵	triforine	$C_{10}H_{14}Cl_6N_4O_2$	26644-46-2
509	氯吡嘧磺隆	halosulfuron-methyl	$C_{13}H_{15}ClN_6O_7S$	100784-20-1
510	调环酸	prohexadione	$C_{10}H_{12}O_5$	88805-35-0
511	霜脲氰	cymoxanil	$C_7H_{10}N_4O_3$	57966-95-7
512	吡氟酰草胺	diflufenican	$C_{19}H_{11}F_5N_2O_2$	83164-33-4
513	唑菌酮	famoxadone	$C_{22}H_{18}N_2O_4$	131807-57-3
514	四唑酰草胺	fentrazamide	$C_{16}H_{20}ClN_5O_2$	158237-07-1
515	嘧螨酯	fluacrypyrim	$C_{20}H_{21}F_3N_2O_5$	229977-93-9
516	氟啶蜱脲	fluazuron	$C_{20}H_{10}Cl_2F_5N_3O_3$	86811-58-7
517	氟螨噻	flubenzimine	$C_{17}H_{10}F_6N_4S$	37893-02-0
518	氟节胺	flumetralin	$C_{16}H_{12}ClF_4N_3O_4$	62924-70-3
519	氟烯草酸	flumiclorac-pentyl	$C_{21}H_{23}ClFNO_5$	87546-18-7
520	氯噻啉	imidaclothiz	$C_7H_8ClN_5O_2S$	105843-36-5
521	甲基碘磺隆	iodosulfuron-methyl	$C_{14}H_{14}IN_5O_6S$	144550-36-7
522	唑酰草胺	metamifop	$C_{23}H_{18}ClFN_2O_4$	256412-89-2
523	氟唑菌苯胺	penflufen	$C_{18}H_{24}FN_3O$	494793-67-8
524	五氟磺草胺	penoxsulam	$C_{16}H_{14}F_5N_5O_5S$	219714-96-2
525	甲基氟嘧磺隆	primisulfuron-methyl	$C_{15}H_{12}F_4N_4O_7S$	86209-51-0

表 A.1 （续）

序号	中文名	英文名	分子式	CAS 号
526	丙氧喹啉	proquinazid	$C_{14}H_{17}IN_2O_2$	189278-12-4
527	吡唑硫磷	pyraclofos	$C_{14}H_{18}ClN_2O_3PS$	89784-60-1
528	吡嘧磺隆	pyrazosulfuron-ethyl	$C_{14}H_{18}N_6O_7S$	93697-74-6
529	嘧啶肟草醚	pyribenzoxim	$C_{32}H_{27}N_5O_8$	168088-61-7
530	稗草畏	pyributicarb	$C_{18}H_{22}N_2O_2S$	88678-67-5
531	哒嗪硫磷	pyridaphenthion	$C_{14}H_{17}N_2O_4PS$	119-12-0
532	啶菌唑	pyrisoxazole	$C_{16}H_{17}ClN_2O$	847749-37-5
533	二氯喹啉酸	quinclorac	$C_{10}H_5Cl_2NO_2$	84087-01-4
534	噻呋酰胺	thifluzamide	$C_{13}H_6Br_2F_6N_2O_2S$	130000-40-7
535	虫线磷	thionazin	$C_8H_{13}N_2O_3PS$	297-97-2
536	螨蜱胺	tifatol	$C_{12}H_{14}N_2S$	61676-87-7
537	抗倒酯	trinexapac-ethyl	$C_{13}H_{16}O_5$	95266-40-3
538	6-羟基灭草松	6-hydroxy-bentazone	$C_{10}H_{12}N_2O_4S$	60374-42-7
539	灭草松	bentazone	$C_{10}H_{12}N_2O_3S$	25057-89-0
540	氟磺胺草醚	fomesafen	$C_{15}H_{10}ClF_3N_2O_6S$	72178-02-0

附　录　B
（资料性）
质谱参考条件[1)]

B.1　质谱参考条件：

a）　离子源类型：电喷雾离子源（ESI）；
b）　离子源电离模式：正模式、负模式；
c）　碰撞气、雾化气和干燥气均为氮气；
d）　干燥气温度：280 ℃；
e）　干燥气流速：9 L/min；
f）　雾化气压力：40 psi；
g）　喷嘴电压：500 V（正模式）、-1500V（负模式）；
h）　毛细管电压：4000 V；
i）　一级质谱采集选用MS全扫描模式，扫描范围为100 m/z ～1000 m/z；
j）　二级质谱采集选用Target MS/MS模式，扫描范围为50 m/z ～1000 m/z；碰撞能量为10 V，20 V，40 V；
k）　540种农药的参考保留时间、电离模式、母离子和典型子离子见表B.1。

1）　非商业性声明：附录B所列参考质谱条件是在Agilent 6545 型液相色谱-飞行时间质谱仪上完成的，此处列出试验用仪器型号仅为提供参考，并不涉及商业目的，鼓励标准使用者尝试不同厂家或型号的仪器。

表B.1　540种农药的参考保留时间、电离模式、母离子和典型子离子

序号	中文名	英文名	保留时间(min)	电离模式	分子离子加合形式	母离子	典型的子离子(m/z)		
1	乙酰甲胺磷	acephate	4.30	正模式	$[M+H]^+$	184.0192	142.9926	128.9770	112.0158
2	乙草胺	acetochlor	10.47	正模式	$[M+H]^+$	270.1255	238.0993	224.0837	148.1121
3	烯丙菊酯	allethrin	12.81、13.05	正模式	$[M+H]^+$	303.1955	123.1168	135.0804	107.0855
4	莠去津	atrazine	8.20	正模式	$[M+H]^+$	216.1010	174.0541	96.0556	104.0010
5	甲基吡啶磷	azamethiphos	6.88	正模式	$[M+H]^+$	324.9809	182.9956	127.9898	139.0058
6	益棉磷	azinphos-ethyl	10.14	正模式	$[M+H]^+$	346.0443	114.9613	137.0059	142.9385
7	嘧菌酯	azoxystrobin	8.73	正模式	$[M+H]^+$	404.1241	372.0979	344.1030	329.0795
8	丙硫克百威	benfuracarb	12.55	正模式	$[M+H]^+$	411.1948	158.1176	195.0472	252.0691
9	联苯肼酯	bifenazate	9.85	正模式	$[M+H]^+$	301.1547	170.0965	198.0913	148.0757
10	噻嗪酮	buprofezin	12.95	正模式	$[M+H]^+$	306.1635	201.1056	116.0528	145.0430
11	丁草胺	butachlor	13.07	正模式	$[M+H]^+$	312.1725	252.1150	176.1434	147.1043
12	仲丁灵	butralin	13.89	正模式	$[M+H]^+$	296.1605	240.0979	222.0873	208.0717
13	硫线磷	cadusafos	12.03	正模式	$[M+H]^+$	271.0950	158.9698	215.0324	130.9385
14	甲萘威	carbaryl	7.41	正模式	$[M+H]^+$	202.0863	145.0648	117.0699	103.0542
15	三硫磷	carbophenothion	13.81	正模式	$[M+H]^+$	342.9811	156.9873	170.9698	142.9385
16	丁硫克百威	carbosulfan	14.91	正模式	$[M+H]^+$	381.2206	160.1155	118.0685	222.1125
17	氟啶脲	chlorfluazuron	13.96	正模式	$[M+H]^+$	539.9702	382.9363	141.0147	186.9586
18	毒死蜱	chlorpyrifos	13.43	正模式	$[M+H]^+$	349.9336	197.9275	114.9614	293.8710
19	甲基毒死蜱	chlorpyrifos-methyl	12.07	正模式	$[M+H]^+$	321.9023	142.9926	289.8760	127.0156
20	绿麦隆	chlorotoluron	7.94	正模式	$[M+H]^+$	213.0789	72.0444	140.0262	168.0211
21	巴毒磷	crotoxyphos	9.35	正模式	$[M+H]^+$	315.0992	105.0103	123.2165	
22	蝇毒磷	coumaphos	11.24	正模式	$[M+H]^+$	363.0217	226.9926	306.9591	334.9904
23	乙拌磷	disulfoton	10.98	正模式	$[M+H]^+$	275.0358	89.0419	132.0240	
24	嘧菌环胺	cyprodinil	11.13	正模式	$[M+H]^+$	226.1339	93.0573	91.0542	118.0525

表B.1 （续）

序号	中文名	英文名	保留时间(min)	电离模式	分子离子加合形式	母离子	典型的子离子(m/z)		
25	溴氰菊酯	deltamethrin	14.11	正模式	$[M+NH_4]^+$	521.0070	503.9804	278.9015	199.0754
26	内吸磷	demeton	8.90	正模式	$[M+H]^+$	259.0586	259.0586	89.0420	61.0107
27	甲基内吸磷砜	demeton-methyl sulfone	5.15	正模式	$[M+H]^+$	263.0171	127.0155	142.9926	169.0083
28	甲基内吸磷亚砜	demeton-methyl sulfoxide	4.97	正模式	$[M+H]^+$	247.0222	169.0083	105.0369	142.9926
29	除线磷	dichlofenthion	13.25	正模式	$[M+H]^+$	314.9773	258.9147	286.9460	114.9614
30	敌敌畏	dichlorvos	7.05	正模式	$[M+H]^+$	220.9532	127.0155	78.9945	144.9816
31	百治磷	dicrotophos	5.43	正模式	$[M+H]^+$	238.0839	112.0756	127.0154	72.0443
32	乙霉威	diethofencarb	9.01	正模式	$[M+H]^+$	268.1543	180.1019	226.1074	152.0706
33	乐果	dimethoate	5.93	正模式	$[M+H]^+$	230.0069	198.9647	170.9698	88.0215
34	烯唑醇	diniconazole	11.91	正模式	$[M+H]^+$	326.0821	70.0400	158.9763	172.9555
35	乙拌磷砜	disulfoton-sulfone	7.88	正模式	$[M+H]^+$	307.0256	307.0256	171.0239	260.9837
36	乙拌磷亚砜	disulfoton-sulfoxide	7.77	正模式	$[M+H]^+$	291.0307	184.9854	213.0167	171.0239
37	灭菌磷	ditalimfos	10.18	正模式	$[M+H]^+$	300.0454	148.0393	243.9828	272.0141
38	敌瘟磷	edifenphos	11.07	正模式	$[M+H]^+$	311.0324	111.0263	172.9821	283.0011
39	乙硫磷	ethion	13.10	正模式	$[M+H]^+$	384.9949	199.0011	170.9698	215.0324
40	灭线磷	ethoprophos	10.35	正模式	$[M+H]^+$	243.0637	172.9854	130.9385	138.9977
41	苯线磷	fenamiphos	10.61	正模式	$[M+H]^+$	304.1131	217.0083	234.0348	276.0818
42	苯线磷砜	fenamiphos sulfone	7.09	正模式	$[M+H]^+$	336.1029	266.0247	308.0716	188.0471
43	苯线磷亚砜	fenamiphos sulfoxide	6.95	正模式	$[M+H]^+$	320.1080	292.0767	171.0474	250.0297
44	氯苯嘧啶醇	fenarimol	9.53	正模式	$[M+H]^+$	331.0399	81.0447	268.0524	138.9945
45	腈苯唑	fenbuconazole	10.42	正模式	$[M+H]^+$	337.1215	125.0153	194.0480	91.0542
46	仲丁威	fenobucarb	9.01	正模式	$[M+H]^+$	208.1332	95.0491	152.0706	151.1117
47	甲氰菊酯	fenpropathrin	13.76	正模式	$[M+NH_4]^+$	367.2016	125.0961	208.0757	350.1751
48	倍硫磷	fenthion	11.17	正模式	$[M+H]^+$	279.0273	149.0233	169.0140	105.0699
49	氧倍硫磷	fenthion oxon	8.63	正模式	$[M+H]^+$	263.0501	185.9865	137.0420	231.0293

表 B.1 （续）

序号	中文名	英文名	保留时间（min）	电离模式	分子离子加合形式	母离子	典型的子离子（m/z）		
50	氧倍硫磷砜	fenthion oxon sulfone	5.85	正模式	[M+H]$^+$	295.0400	252.8010	175.2300	
51	氧倍硫磷亚砜	fenthion oxon sulfoxide	5.75	正模式	[M+H]$^+$	279.0451	104.0621	149.0185	217.0624
52	倍硫磷砜	fenthion sulfone	7.34	正模式	[M+H]$^+$	311.0171	142.9926	128.0233	200.0055
53	倍硫磷亚砜	fenthion sulfoxide	7.15	正模式	[M+H]$^+$	295.0222	279.9987	278.0195	127.0155
54	地虫硫磷	fonofos	11.35	正模式	[M+H]$^+$	247.0375	137.0184	108.9871	126.9977
55	噻唑磷	fosthiazate	7.71	正模式	[M+H]$^+$	284.0538	227.9912	104.0165	199.9599
56	庚烯磷	heptenophos	8.33	正模式	[M+H]$^+$	251.0234	127.0155	125.0153	89.0386
57	己唑醇	hexaconazole	11.54	正模式	[M+H]$^+$	314.0821	70.0413	158.9763	184.9919
58	抑霉唑	imazalil	8.09	正模式	[M+H]$^+$	297.0556	158.9763	69.0447	172.9919
59	茚虫威	indoxacarb	11.94	正模式	[M+H]$^+$	528.0780	218.0423	249.0425	150.0105
60	异稻瘟净	iprobenfos	10.85	正模式	[M+H]$^+$	289.1022	91.0542	205.0083	65.0386
61	缬霉威	iprovalicarb	9.93、10.03	正模式	[M+H]$^+$	321.2173	119.0855	203.1390	186.1125
62	氯唑磷	isazofos	9.91	正模式	[M+H]$^+$	314.0490	162.0662	114.9615	119.0607
63	水胺硫磷	isocarbophos	8.21	正模式	[M+Na]$^+$	312.0430	270.1580	236.0114	
64	异柳磷	isofenphos	11.64	正模式	[M+H]$^+$	346.1236	216.9719	245.0032	198.9977
65	甲基异柳磷	isofenphos−methyl	10.94	正模式	[M+H]$^+$	332.1080	121.0284	230.9875	216.9719
66	氧异柳磷砜	isofenphos oxon	9.88	正模式	[M+H]$^+$	330.1465	200.9947	121.0284	
67	唑磷	isoxathion	11.48	正模式	[M+H]$^+$	314.0610	105.0334	96.9507	77.0388
68	醚菌酯	kresoxim−methyl	10.98	正模式	[M+H]$^+$	314.1387	222.0913	267.1016	235.0754
69	利谷隆	linuron	9.17	正模式	[M+H]$^+$	249.0192	159.9715	182.0241	160.9794
70	马拉氧磷	malaoxon	7.06	正模式	[M+H]$^+$	315.0662	127.0390	99.0077	142.9926
71	马拉硫磷	malathion	9.53	正模式	[M+H]$^+$	331.0433	285.0015	127.0390	331.0433
72	地胺磷	mephosfolan	6.90	正模式	[M+H]$^+$	270.0382	167.9879	139.9566	75.0263
73	甲胺磷	methamidophos	3.91	正模式	[M+H]$^+$	142.0086	124.9821	78.9943	109.9824
74	杀扑磷	methidathion	8.49	正模式	[M+H]$^+$	302.9691	145.0066	85.0396	71.0240

表 B.1 （续）

序号	中文名	英文名	保留时间（min）	电离模式	分子离子加合形式	母离子	典型的子离子（m/z）		
75	异丙甲草胺	metolachlor	10.57	正模式	$[M+H]^+$	284.1412	252.1150	176.1434	212.0837
76	速灭威	metolcarb	6.81	正模式	$[M+H]^+$	166.0863	109.0648	94.0410	91.0542
77	速灭磷	mevinphos	5.69	正模式	$[M+H]^+$	225.0523	193.0260	127.0155	99.0441
78	久效磷	monocrotophos	5.20	正模式	$[M+H]^+$	224.0682	127.0155	98.0600	193.0260
79	敌草胺	napropamide	10.23	正模式	$[M+H]^+$	272.1645	129.1148	171.0804	199.0754
80	氧乐果	omethoate	4.31	正模式	$[M+H]^+$	214.0297	182.9875	142.9926	154.9926
81	多效唑	paclobutrazol	9.50	正模式	$[M+H]^+$	294.1368	70.0400	125.0153	139.0309
82	对氧磷	paraoxon	7.87	正模式	$[M+H]^+$	276.0632	220.0002	174.0076	94.0413
83	甲基对氧磷	paraoxon-methyl	6.51	正模式	$[M+H]^+$	248.0319	202.0389	109.0049	90.0467
84	二甲戊灵	pendimethalin	13.53	正模式	$[M+H]^+$	282.1448	212.0666	194.0560	195.0638
85	稻丰散	phenthoate	10.81	正模式	$[M+H]^+$	321.0379	163.0754	247.0011	135.0804
86	甲拌磷	phorate	11.73	正模式	$[M+H]^+$	261.0201	75.0263	46.9950	199.0889
87	甲拌磷砜	phorate sulfone	7.95	正模式	$[M+H]^+$	293.0099	171.0239	247.0222	199.0011
88	甲拌磷亚砜	phorate sulfoxide	7.81	正模式	$[M+H]^+$	277.0150	199.0011	170.9698	142.9385
89	去甲基抗蚜威	desmethyl-pirimicarb	6.00	正模式	$[M+H]^+$	225.1346	72.0443	168.1131	
90	伏杀硫磷	phosalone	11.63	正模式	$[M+H]^+$	367.9941	367.9941	182.0003	322.0064
91	硫环磷	phosfolan	6.36	正模式	$[M+H]^+$	256.0225	139.9563	167.9876	196.0192
92	亚胺硫磷	phosmet	8.70	正模式	$[M+H]^+$	318.0018	160.0393	133.0284	105.0335
93	磷胺	phosphamidon	6.51、6.67	正模式	$[M+H]^+$	300.0762	174.0680	226.9871	127.0155
94	啶氧菌酯	picoxystrobin	10.57	正模式	$[M+H]^+$	368.1104	205.0859	145.0648	173.0597
95	增效醚	piperonyl butoxide	13.14	正模式	$[M+NH_4]^+$	356.2431	119.0855	177.0910	147.0804
96	哌草磷	piperophos	12.07	正模式	$[M+H]^+$	354.1321	255.0273	170.9334	142.9385
97	抗蚜威	pirimicarb	7.56	正模式	$[M+H]^+$	239.1503	72.0444	182.1288	85.0760
98	嘧啶磷	pirimiphos-ethyl	13.05	正模式	$[M+H]^+$	334.1349	198.1059	182.1288	170.0746
99	甲基嘧啶磷	pirimiphos-methyl	11.76	正模式	$[M+H]^+$	306.1036	164.1182	108.0556	136.0869

表 B.1 （续）

序号	中文名	英文名	保留时间（min）	电离模式	分子离子加合形式	母离子	典型的子离子（m/z）		
100	丙草胺	pretilachlor	12.43	正模式	$[M+H]^+$	312.1725	252.1150	176.1434	
101	咪鲜胺	prochloraz	11.58	正模式	$[M+H]^+$	376.0381	308.0006	265.9537	280.0057
102	丙溴磷	profenofos	12.63	正模式	$[M+H]^+$	372.9424	302.8642	222.8977	
103	霜霉威	propamocarb	4.49	正模式	$[M+H]^+$	189.1598	102.0550	144.1019	74.0237
104	敌稗	propanil	9.29	负模式	$[M-H]^-$	215.9988	161.9872	127.0183	
105	丙虫磷	propaphos	11.00	正模式	$[M+H]^+$	305.0971	221.0031	141.0368	79.0542
106	炔螨特	propargite	13.65	正模式	$[M+NH_4]^+$	368.1890	231.1743	175.1117	107.0491
107	胺丙畏	propetamphos	9.75	正模式	$[M+H]^+$	282.0923	138.0137	156.0243	194.9875
108	丙环唑	propiconazole	11.28、11.30	正模式	$[M+H]^+$	342.0771	158.9763	69.0699	
109	残杀威	propoxur	7.07	正模式	$[M+H]^+$	210.1125	111.0441	168.0655	153.0910
110	吡唑醚菌酯	pyraclostrobin	11.43	正模式	$[M+H]^+$	388.1059	194.0812	296.0585	164.0706
111	吡嘧磷	pyrazophos	11.70	正模式	$[M+H]^+$	374.0934	222.0873	194.0560	238.0645
112	哒螨灵	pyridaben	14.41	正模式	$[M+H]^+$	365.1449	309.0823	147.1168	
113	啶斑肟	pyrifenox	10.02	正模式	$[M+H]^+$	295.0399	93.0573	263.0137	92.0495
114	喹硫磷	quinalphos	10.94	正模式	$[M+H]^+$	299.0614	147.0553	163.0324	114.9613
115	治螟磷	sulfotep	10.98	正模式	$[M+H]^+$	323.0300	114.9613	142.9926	171.0239
116	氟胺氰菊酯	tau–fluvalinate	14.44	正模式	$[M+H]^+$	503.1344	181.0648	133.0859	89.0597
117	戊唑醇	tebuconazole	11.15	正模式	$[M+H]^+$	308.1524	70.0400	125.0153	
118	特丁硫磷	terbufos	12.92	正模式	$[M+H]^+$	289.0514	103.0576	57.0699	187.0011
119	特丁硫磷砜	terbufos sulfone	8.93	正模式	$[M+H]^+$	321.0412	171.0239	264.9786	275.0535
120	特丁硫磷亚砜	terbufos sulfoxide	8.94	正模式	$[M+H]^+$	305.0463	130.9385	158.9698	187.0011
121	杀虫畏	tetrachlorvinphos	10.80	正模式	$[M+H]^+$	364.9065	127.0156	238.8983	203.9295
122	胺菊酯	tetramethrin	12.79	正模式	$[M+H]^+$	332.1856	286.1802	314.1751	164.0706
123	三唑酮	triadimefon	9.70	正模式	$[M+H]^+$	294.1004	197.0728	115.0754	225.0677

表 B.1 （续）

序号	中文名	英文名	保留时间（min）	电离模式	分子离子加合形式	母离子	典型的子离子（m/z）		
124	三唑醇	triadimenol	9.90	正模式	[M+H]$^+$	296.1160	70.0413	99.0804	227.0833
125	三唑磷	triazophos	9.84	正模式	[M+H]$^+$	314.0723	162.0662	119.0604	114.9613
126	三环唑	tricyclazole	6.33	正模式	[M+H]$^+$	190.0433	136.0215	163.0324	109.0106
127	蚜灭磷	vamidothion	5.80	正模式	[M+H]$^+$	288.0488	146.0634	118.0321	86.0600
128	苯草醚	aclonifen	11.00	正模式	[M+H]$^+$	265.0374	248.0347	182.0600	218.0367
129	二丙烯草胺	allidochlor	6.74	正模式	[M+H]$^+$	174.0680	98.0964	106.0054	81.0699
130	莠灭净	ametryn	9.02	正模式	[M+H]$^+$	228.1277	186.0808	96.0556	91.0324
131	灭害威	aminocarb	4.49	正模式	[M+H]$^+$	209.1285	152.1070	137.0835	
132	莎稗磷	anilofos	11.08	正模式	[M+H]$^+$	368.0305	170.9698	198.9647	124.9821
133	脱乙基莠去津	atrazine-desethyl	6.28	正模式	[M+H]$^+$	188.0697	146.0228	104.0010	110.0461
134	叠氮津	aziprotryne	9.83	正模式	[M+H]$^+$	226.0869	156.0338	125.0822	114.0120
135	苯霜灵	benalaxyl	11.24	正模式	[M+H]$^+$	326.1751	208.1332	148.1121	294.1489
136	虫威	bendiocarb	7.08	正模式	[M+H]$^+$	224.0917	167.0703	109.0284	59.0491
137	麦锈灵	benodanil	7.98	正模式	[M+H]$^+$	323.9880	230.9301	94.0413	76.0308
138	解草酮	benoxacor	8.87	正模式	[M+H]$^+$	260.0240	149.0835	120.0444	134.0600
139	新燕灵	benzoylprop-ethyl	11.31	正模式	[M+H]$^+$	366.0658	105.0335	95.0492	77.0386
140	联苯三唑醇	bitertanol	11.60	正模式	[M+H]$^+$	338.1863	70.0400	269.1536	99.0804
141	啶酰菌胺	boscalid	9.31	正模式	[M+H]$^+$	343.0399	307.0633	271.0866	272.0944
142	除草定	bromacil	7.22	正模式	[M+H]$^+$	261.0233	78.9189	202.9462	159.9403
143	糠菌唑	bromuconazole	9.93、10.92	正模式	[M+H]$^+$	375.9614	158.9763	70.0413	172.9555
144	乙嘧酚磺酸酯	bupirimate	10.59	正模式	[M+H]$^+$	317.1642	166.0975	108.0114	210.1601
145	氟丙嘧草酯	butafenacil	9.93	正模式	[M+H]$^+$	473.0733	179.9847	331.0092	123.9949
146	萎锈灵	carboxin	7.44	正模式	[M+H]$^+$	236.0740	143.0161	124.0215	208.0427
147	杀虫脒	chlordimeform	5.51	正模式	[M+H]$^+$	197.0840	117.0573	125.0153	152.0262
148	氯草敏	chloridazon	6.01	正模式	[M+H]$^+$	222.0429	92.0495	104.0495	65.0386

表 B.1 （续）

序号	中文名	英文名	保留时间（min）	电离模式	分子离子加合形式	母离子	典型的子离子（m/z）		
149	氯磺隆	chlorsulfuron	7.12	正模式	$[M+H]^+$	358.0371	141.0771	167.0564	56.0495
150	异草酮	clomazone	8.84	正模式	$[M+H]^+$	240.0786	125.0153	89.0386	98.9996
151	氰草津	cyanazine	6.75	正模式	$[M+H]^+$	241.0963	214.0854	132.0323	96.0556
152	环草敌	cycloate	12.21	正模式	$[M+H]^+$	216.1417	83.0855	154.1226	134.0634
153	环莠隆	cycluron	8.53	正模式	$[M+H]^+$	199.1805	72.0444	89.0709	69.0699
154	环氟菌胺	cyflufenamid	11.46	正模式	$[M+H]^+$	413.1283	241.0383	295.0864	91.0542
155	环丙唑醇	cyproconazole	9.85	正模式	$[M+H]^+$	292.1211	70.0413	125.0153	138.9945
156	灭蝇胺	cyromazine	3.87	正模式	$[M+H]^+$	167.1040	85.0509	125.0822	108.0556
157	避蚊胺	diethyltoluamide	8.22	正模式	$[M+H]^+$	192.1383	119.0491	91.0542	109.0648
158	二嗪磷	diazinon	11.33	正模式	$[M+H]^+$	305.1083	169.0794	153.1022	114.9613
159	烯丙酰草胺	dichlormid	7.27	正模式	$[M+H]^+$	208.0290	139.9664	81.0699	98.0964
160	禾草灵	diclofop-methyl	12.90	正模式	$[M+NH_4]^+$	358.0607	281.0131	341.0342	
161	苯醚甲环唑	difenoconazole	11.90	正模式	$[M+H]^+$	406.0720	251.0025	337.0393	291.0338
162	枯莠隆	difenoxuron	8.17	正模式	$[M+H]^+$	287.1390	123.0041	72.0444	46.0651
163	二甲草胺	dimethachlor	8.62	正模式	$[M+H]^+$	256.1099	224.0837	148.1121	
164	异戊乙净	dimethametryn	10.93	正模式	$[M+H]^+$	256.1590	186.0808	96.0556	71.0604
165	二甲酚噻草胺	dimethenamid	9.38	正模式	$[M+H]^+$	276.0820	168.0842	244.0557	126.0372
166	烯酰吗啉	dimethomorph	9.04、9.50	正模式	$[M+H]^+$	388.1310	165.0546	301.0626	138.9945
167	氟环唑	epoxiconazole	10.32	正模式	$[M+H]^+$	330.0804	121.0448	123.0241	141.0102
168	乙环唑	etaconazole	10.31	正模式	$[M+H]^+$	328.0614	158.9763	204.9818	186.9712
169	乙氧呋草黄	ethofumesate	9.04	正模式	$[M+H]^+$	287.0948	287.0948	241.0529	259.0635
170	乙氧喹啉	ethoxyquin	10.07	正模式	$[M+H]^+$	218.1539	148.0757	176.1070	190.1226
171	醚菊酯	etofenprox	15.24	正模式	$[M+NH_4]^+$	394.2377	177.1274	135.0804	189.1274
172	乙螨唑	etoxazole	13.64	正模式	$[M+H]^+$	360.1770	141.0147	304.1132	177.1274
173	咪唑菌酮	fenamidone	9.17	正模式	$[M+H]^+$	312.1165	92.0495	236.1182	103.0542

表 B.1 （续）

序号	中文名	英文名	保留时间（min）	电离模式	分子离子加合形式	母离子	典型的子离子（m/z）		
174	喹螨醚	fenazaquin	14.51	正模式	$[M+H]^+$	307.1805	57.0699	161.1325	147.0553
175	拌种咯	fenpiclonil	8.59	正模式	$[M+H]^+$	236.9981	202.0292	166.0526	140.0495
176	苯锈啶	fenpropidin	8.38	正模式	$[M+H]^+$	274.2529	147.1168	86.0964	119.0855
177	丁苯吗啉	fenpropimorph	10.08	正模式	$[M+H]^+$	304.2635	147.1168	98.0964	119.0855
178	非草隆	fenuron	5.91	正模式	$[M+H]^+$	165.1022	72.0444	120.0444	92.0495
179	麦草氟异丙酯	flamprop-isopropyl	11.13	正模式	$[M+H]^+$	364.1110	105.0335	172.0319	276.0581
180	精吡氟禾草灵	fluazifop-p-butyl	8.59	正模式	$[M+H]^+$	328.0791	282.0736	91.0542	
181	吡氟禾草灵	fluazifop-butyl	12.62	正模式	$[M+H]^+$	384.1417	282.0725	328.0780	238.0463
182	氟噻草胺	flufenacet	10.19	正模式	$[M+H]^+$	364.0737	194.0976	152.0506	166.1027
183	氟虫脲	flufenoxuron	13.53	正模式	$[M+H]^+$	489.0435	304.0158	329.0110	284.0095
184	丙炔氟草胺	flumioxazin	8.52	正模式	$[M+H]^+$	355.1089	327.1139	353.0943	
185	氟吡菌酰胺	fluopyram	9.92	正模式	$[M+H]^+$	397.0537	208.0135	173.0209	170.0412
186	乙羧氟草醚	fluoroglycofen-ethyl	12.11	正模式	$[M+NH_4]^+$	465.0671	343.9932	222.9768	
187	氟喹唑	fluquinconazole	10.06	正模式	$[M+H]^+$	376.0163	306.9836	349.0054	163.0302
188	氟咯草酮	flurochloridone	9.82	正模式	$[M+H]^+$	312.0164	212.0682	89.0153	172.0369
189	氟唑菌酰胺	fluxapyroxad	9.46	正模式	$[M+H]^+$	382.0973	103.0302	248.0329	131.0426
190	呋霜灵	furalaxyl	8.92	正模式	$[M+H]^+$	302.1387	242.1176	95.0128	270.1125
191	环嗪酮	hexazinone	7.21	正模式	$[M+H]^+$	253.1659	171.0877	71.0604	85.0760
192	咪草酯	imazamethabenz-methyl	7.17	正模式	$[M+H]^+$	289.1547	86.0964	161.0709	144.0444
193	丁咪酰胺	isocarbamide	6.24	正模式	$[M+H]^+$	186.1237	87.0553	130.0611	
194	丁嗪草酮	isomethiozin	11.42	正模式	$[M+H]^+$	269.1431	200.0852	172.0903	116.0277
195	异丙威	isoprocarb	8.07	正模式	$[M+H]^+$	194.1176	95.0491	137.0961	152.0706
196	异乐灵	isopropalin	14.16	正模式	$[M+H]^+$	310.1761	226.0822	268.1292	250.1186
197	稻瘟灵	isoprothiolane	9.55	正模式	$[M+H]^+$	291.0719	231.0144	188.9675	249.0250
198	异丙隆	isoproturon	8.28	正模式	$[M+H]^+$	207.1492	72.0444	165.1022	134.0964

表B.1 （续）

序号	中文名	英文名	保留时间（min）	电离模式	分子离子加合形式	母离子	典型的子离子（m/z）		
199	双苯唑酸乙酯	isoxadifen-ethyl	10.86	正模式	$[M+H]^+$	296.1281	232.0757	203.0729	105.0335
200	苯噻酰草胺	mefenacet	9.86	正模式	$[M+H]^+$	299.0849	148.0757	120.0808	192.0114
201	吡唑解草酯	mefenpyr-diethyl	11.46	正模式	$[M+H]^+$	373.0716	327.0298	159.9715	298.9985
202	嘧菌胺	mepanipyrim	10.15	正模式	$[M+H]^+$	224.1182	106.0651	77.0386	182.0389
203	灭锈胺	mepronil	9.63	正模式	$[M+H]^+$	270.1489	228.1019	119.0491	91.0542
204	甲霜灵	metalaxyl	8.22	正模式	$[M+H]^+$	280.1543	192.1383	220.1332	160.1121
205	苯嗪草酮	metamitron	5.99	正模式	$[M+H]^+$	203.0927	175.0978	104.0495	174.0788
206	吡唑草胺	metazachlor	8.10	正模式	$[M+H]^+$	278.1055	210.0680	134.0964	
207	叶菌唑	metconazole	11.59	正模式	$[M+H]^+$	320.1524	70.0413	125.0153	177.0466
208	氟虫腈	fipronil	10.55	负模式	$[M-H]^-$	434.9314	329.9595	249.9581	317.9692
209	氟虫腈砜	fipronil sulfone	11.03	负模式	$[M-H]^-$	450.9263	414.9497	183.0176	233.9813
210	氟虫腈亚砜	fipronil sulfoxide	10.71	负模式	$[M-H]^-$	418.9365	261.9581	313.9651	382.9598
211	氟甲腈	fipronil desulfinyl	10.24	负模式	$[M-H]^-$	386.9644	350.9878	281.9926	330.9815
212	氟啶虫酰胺	flonicamid	5.23	负模式	$[M-H]^-$	228.0390	81.0094	146.0223	
213	氟铃脲	hexaflumuron	12.07	负模式	$[M-H]^-$	458.9743	438.9681	275.9612	402.9914
214	异唑草酮	isoxaflutole	8.10	正模式	$[M+H]^+$	360.0512	358.0366	78.9859	378.0434
215	甲基苯噻隆	methabenzthiazuron	8.16	正模式	$[M+H]^+$	222.0696	165.0481	150.0246	124.0216
216	呋菌胺	methfuroxam	8.68	正模式	$[M+H]^+$	230.1176	137.0597	111.0804	120.0444
217	甲氧丙净	methoprotryne	8.95	正模式	$[M+H]^+$	272.1540	198.0808	240.1277	230.1070
218	嗪草酮	metribuzin	7.29	正模式	$[M+H]^+$	215.0961	187.1012	58.0413	84.0808
219	禾草敌	molinate	10.01	正模式	$[M+H]^+$	188.1104	126.0913	83.0855	98.0964
220	庚酰草胺	monalide	10.51	正模式	$[M+H]^+$	240.1150	85.1012	57.0700	128.0257
221	绿谷隆	monolinuron	7.70	正模式	$[M+H]^+$	215.0582	126.0105	148.0631	127.0183
222	腈菌唑	myclobutanil	9.71	正模式	$[M+H]^+$	289.1215	70.0400	125.0153	151.0309
223	氟草敏	norflurazon	8.35	正模式	$[M+H]^+$	304.0459	284.0397	160.0369	87.9948

表 B.1 （续）

序号	中文名	英文名	保留时间（min）	电离模式	分子离子加合形式	母离子	典型的子离子（m/z）		
224	氟酰脲	novaluron	12.16	正模式	[M+H]$^+$	493.0196	158.0412	141.0146	310.0064
225	氟苯嘧啶醇	nuarimol	9.05	正模式	[M+H]$^+$	315.0695	81.0448	252.0889	243.0372
226	呋酰胺	ofurace	7.09	正模式	[M+H]$^+$	282.0891	254.0942	236.0837	160.1121
227	坪草丹	orbencarb	11.67	正模式	[M+H]$^+$	258.0714	125.0153	72.0444	100.0757
228	解草腈	oxabetrinil	9.04	正模式	[M+H]$^+$	233.0921	147.0553	104.0495	77.0386
229	草酮	oxadiazon	13.07	正模式	[M+H]$^+$	345.0767	219.9563	303.0298	176.9505
230	霜灵	oxadixyl	6.55	正模式	[M+H]$^+$	279.1339	219.1128	102.0550	149.0233
231	氧化萎锈灵	oxycarboxin	6.12	正模式	[M+H]$^+$	268.0638	175.0060	164.9854	193.0167
232	异丙草胺	propisochlor	11.24	正模式	[M+H]$^+$	284.1412	212.0837	176.1434	252.1150
233	炔苯酰草胺	propyzamide	9.75	正模式	[M+H]$^+$	256.0290	227.9988	144.9617	186.9723
234	苄草丹	prosulfocarb	12.52	正模式	[M+H]$^+$	252.1417	91.0542	128.1070	86.0600
235	咯喹酮	pyroquilon	7.03	正模式	[M+H]$^+$	174.0913	132.0808	117.0573	105.0699
236	喹禾灵	quizalofop	10.08	正模式	[M+H]$^+$	345.0637	299.0582	271.0633	272.0347
237	喹禾灵乙酯	quizalofop-ethyl	12.68	正模式	[M+H]$^+$	373.0950	299.0577	271.0628	255.0315
238	吡咪唑	rabenzazole	8.23	正模式	[M+H]$^+$	213.1135	172.0869	118.0526	
239	苄呋菊酯	resmethrin	14.66	正模式	[M+H]$^+$	339.1955	143.0855	171.0804	91.0542
240	螺螨酯	spirodiclofen	13.97	正模式	[M+H]$^+$	411.1124	71.0855	313.0393	374.0107
241	螺甲螨酯	spiromesifen	13.52	正模式	[M+H]$^+$	371.2217	273.1485	255.1380	187.0754
242	螺虫乙酯	spirotetramat	10.02	正模式	[M+H]$^+$	374.1962	302.1751	270.1489	330.2064
243	螺虫乙酯-烯醇-葡萄糖苷	spirotetramate-enol-glukosid	5.47	正模式	[M+H]$^+$	464.2279	216.1019	270.1489	302.1751
244	螺虫乙酯-酮基-羟基	spirotetramate-keto-hydroxy	8.35	正模式	[M+H]$^+$	318.1700	300.1594	268.1332	214.0863
245	螺虫乙酯-单-羟基	spirotetramate-mono-hydroxy	6.98	正模式	[M+H]$^+$	304.1907	119.0855	203.1390	186.1125
246	螺环菌胺	spiroxamine	9.15	正模式	[M+H]$^+$	298.2741	144.1383	100.1121	
247	吡螨胺	tebufenpyrad	12.84	正模式	[M+H]$^+$	334.1681	117.0214	145.0522	147.1168
248	丁基嘧啶磷	tebupirimfos	13.05	正模式	[M+H]$^+$	319.1240	277.0770	153.1022	

表 B.1 （续）

序号	中文名	英文名	保留时间（min）	电离模式	分子离子加合形式	母离子	典型的子离子（m/z）		
249	牧草胺	tebutam	10.53	正模式	$[M+H]^+$	234.1852	91.0520	142.1226	192.1380
250	丁噻隆	tebuthiuron	7.34	正模式	$[M+H]^+$	229.1118	116.0277	172.0903	157.0668
251	特丁通	terbumeton	8.78	正模式	$[M+H]^+$	226.1662	170.1036	142.0723	100.0505
252	特草灵	terbucarb	12.08	正模式	$[M+H]^+$	278.2115	109.0648	166.0863	222.1489
253	特丁草净	terbutryn	10.25	正模式	$[M+H]^+$	242.1434	186.0808	91.0324	158.0495
254	四氟醚唑	tetraconazole	10.13	正模式	$[M+H]^+$	372.0288	158.9761	70.0413	150.0231
255	草达津	trietazine	10.36	正模式	$[M+H]^+$	230.1167	99.0917	132.0323	202.0854
256	肟菌酯	trifloxystrobin	12.05	正模式	$[M+H]^+$	409.1370	186.0525	116.0495	131.0730
257	氟菌唑	triflumizole	12.28	正模式	$[M+H]^+$	346.0929	278.0543	73.0648	
258	灭菌唑	triticonazole	10.25	正模式	$[M+H]^+$	318.1368	70.0413	125.0153	191.0622
259	烯效唑	uniconazole	10.58	正模式	$[M+H]^+$	292.1211	70.0408	125.0153	
260	灭草敌	vernolate	12.01	正模式	$[M+H]^+$	204.1417	128.1070	86.0600	
261	苯酰菌胺	zoxamide	11.43	正模式	$[M+H]^+$	336.0319	186.9712	203.9977	132.0575
262	氟苯脲	teflubenzuron	13.04	负模式	$[M-H]^-$	378.9670	195.9538	41.9985	294.9647
263	二氧威	dioxacarb	5.92	正模式	$[M+H]^+$	224.0917	123.0441	95.0491	167.0703
264	双苯酰草胺	diphenamid	8.53	正模式	$[M+H]^+$	240.1383	134.0964	167.0855	165.0699
265	异丙净	dipropetryn	11.03	正模式	$[M+H]^+$	256.1590	214.1121	144.0338	172.0651
266	氟硫草定	dithiopyr	12.19	正模式	$[M+H]^+$	402.0615	354.0582	271.9992	296.0355
267	十二环吗啉	dodemorph	15.26	正模式	$[M+H]^+$	282.2791	116.1070	98.0964	97.1012
268	环酰菌胺	fenhexamid	10.15	正模式	$[M+H]^+$	302.0709	97.1012	177.9821	142.0054
269	苯硫威	fenothiocarb	10.81	正模式	$[M+H]^+$	254.1209	160.3131	72.1141	
270	唑禾草灵	fenoxaprop-ethyl	12.59	正模式	$[M+H]^+$	362.0790	288.0422	121.0648	119.0491
271	苯氧威	fenoxycarb	10.67	正模式	$[M+H]^+$	302.1387	88.0393	116.0706	211.0754
272	氯氟吡氧乙酸	fluroxypyr	13.51	正模式	$[M+H]^+$	254.9734	194.9534	232.9526	
273	氯氟吡氧乙酸异辛酯	fluroxypyr-meptyl	13.51	正模式	$[M+H]^+$	367.0986	254.9734	208.9674	180.9725

表 B.1 （续）

序号	中文名	英文名	保留时间(min)	电离模式	分子离子加合形式	母离子	典型的子离子(m/z)		
274	氟硅唑	flusilazole	10.57	正模式	[M+H]⁺	316.1076	165.0697	166.0775	185.0759
275	氟酰胺	flutolanil	9.41	正模式	[M+H]⁺	324.1206	242.0612	262.0674	173.0209
276	粉唑醇	flutriafol	7.95	正模式	[M+H]⁺	302.1099	70.0400	123.0241	233.0772
277	麦穗宁	fuberidazole	6.18	正模式	[M+H]⁺	185.0709	157.0760	156.0682	92.0495
278	呋线威	furathiocarb	12.73	正模式	[M+H]⁺	383.1635	195.0474	167.0525	164.0832
279	拌种胺	furmecyclox	11.25	正模式	[M+H]⁺	252.1594	170.0812	110.0600	138.0550
280	氟吡禾灵	haloxyfop	10.32	正模式	[M+H]⁺	362.0401	316.0347	288.0398	91.0542
281	高效氟吡甲禾灵	haloxyfop-P- methyl	12.62	正模式	[M+H]⁺	434.0977	316.0347	73.0648	288.0398
282	氟吡甲禾灵	haloxyfop-methyl	12.03	正模式	[M+H]⁺	376.0558	91.0542	316.0347	288.0398
283	克草猛	pebulate	12.01	正模式	[M+H]⁺	204.1417	162.0947	128.1070	72.0444
284	戊菌唑	penconazole	11.07	正模式	[M+H]⁺	284.0716	70.0400	158.9763	172.9919
285	氟吡草胺	picolinafen	12.92	正模式	[M+H]⁺	377.0908	256.0580	359.0802	284.0529
286	扑草净	prometryn	10.10	正模式	[M+H]⁺	242.1434	158.0495	200.0964	116.0277
287	毒草胺	propachlor	8.34	正模式	[M+H]⁺	212.0837	170.0367	94.0651	106.0651
288	扑灭津	propazine	9.22	正模式	[M+H]⁺	230.1167	188.0698	146.0228	104.0010
289	环酯草醚	pyriftalid	8.78	正模式	[M+H]⁺	319.0747	139.0502	157.0608	179.0161
290	嘧霉胺	pyrimethanil	9.28	正模式	[M+H]⁺	200.1182	82.0651	80.0495	182.0838
291	吡丙醚	pyriproxyfen	13.25	正模式	[M+H]⁺	322.1438	96.0444	185.0597	227.1067
292	灭藻醌	quinoclamine	6.90	正模式	[M+H]⁺	208.0160	105.0335	116.0495	144.0444
293	喹氧灵	quinoxyfen	13.41	正模式	[M+H]⁺	308.0040	213.9821	162.0105	272.0273
294	仲丁通	secbumeton	8.50	正模式	[M+H]⁺	226.1662	170.1036	100.0505	142.0723
295	西玛津	simazine	7.23	正模式	[M+H]⁺	202.0854	132.0323	96.0556	104.0010
296	西草净	simetryn	7.91	正模式	[M+H]⁺	214.1121	172.0651	82.0400	91.0324
297	禾草丹	thiobencarb	11.83	正模式	[M+H]⁺	258.0714	125.0153	100.0757	
298	甲基立枯磷	tolclofos-methyl	11.71	正模式	[M+H]⁺	300.9616	286.9460	142.9926	174.9712

表B.1 （续）

序号	中文名	英文名	保留时间（min）	电离模式	分子离子加合形式	母离子	典型的子离子（m/z）		
299	唑虫酰胺	tolfenpyrad	12.95	正模式	$[M+H]^+$	384.1473	197.0961	145.0527	171.0320
300	野麦畏	triallate	13.41	正模式	$[M+H]^+$	304.0091	142.9217	261.9621	86.0600
301	敌乐胺	dinitramine	11.64	负模式	$[M-H]^-$	321.0816	305.0856	247.0437	215.0665
302	丙硫多菌灵	albendazole	9.16	正模式	$[M+H]^+$	266.0958	234.0696	191.0148	159.0427
303	多菌灵	carbendazim	5.54	正模式	$[M+H]^+$	192.0768	160.0505	132.0556	105.0447
304	双酰草胺	carbetamide	6.78	正模式	$[M+H]^+$	237.1234	118.0863	120.0444	192.0655
305	甲菌定	dimethirimol	7.24	正模式	$[M+H]^+$	210.1601	140.1070	98.0600	150.1026
306	磺噻隆	ethidimuron	5.64	正模式	$[M+H]^+$	265.0424	208.0209	161.9790	57.0447
307	稻瘟酰胺	fenoxanil	10.69	正模式	$[M+H]^+$	329.0818	302.0709	86.0964	188.9869
308	唑螨酯	fenpyroximate	13.92	正模式	$[M+H]^+$	422.2074	138.0662	366.1448	231.1002
309	氟吗啉	flumorph	8.25	正模式	$[M+H]^+$	372.1606	285.0169	165.0340	
310	呋草酮	flurtamone	8.96	正模式	$[M+H]^+$	334.1049	247.0729	105.0335	178.0777
311	氟蚁腙	hydramethylnon	11.61	正模式	$[M+H]^+$	495.1978	323.1478	368.0874	171.0416
312	霉灵	hymexazol	4.58	正模式	$[M+H]^+$	100.0393	54.1013	31.0568	
313	甲氧咪草烟	imazamox	6.00	正模式	$[M+H]^+$	306.1448	193.0608	69.0699	86.0964
314	异酰草胺	isoxaben	9.25	正模式	$[M+H]^+$	333.1809	165.0546	122.0364	150.0312
315	甲氧虫酰肼	methoxyfenozide	9.50	正模式	$[M+H]^+$	369.2173	149.0597	313.1547	133.0648
316	烯啶虫胺	nitenpyram	4.98	正模式	$[M+H]^+$	271.0956	224.0949	196.0636	126.0105
317	嘧草醚	pyriminobac–methyl	8.76	正模式	$[M+H]^+$	362.1347	330.0841	284.0471	
318	鱼藤酮	rotenone	10.57	正模式	$[M+H]^+$	395.1489	213.0910	192.0781	203.0703
319	苯嘧磺草胺	saflufenacil	8.61	正模式	$[M+H]^+$	501.0617	330.0306	256.1364	
320	烯禾啶	sethoxydim	12.84	正模式	$[M+H]^+$	328.1941	178.0863	107.0491	220.1332
321	噻菌灵	thiabendazole	5.93	正模式	$[M+H]^+$	202.0433	175.0324	131.0604	92.0495
322	噻虫嗪	thiamethoxam	5.21	正模式	$[M+H]^+$	292.0266	211.0648	131.9669	210.0570
323	久效威亚砜	thiofanox sulfoxide	5.63	正模式	$[M+H]^+$	235.1111	104.0165	178.0896	115.0992

表 B.1 （续）

序号	中文名	英文名	保留时间（min）	电离模式	分子离子加合形式	母离子	典型的子离子（m/z）		
324	硫菌灵	thiophanate	8.26	正模式	$[M+H]^+$	371.0842	151.0324	325.0424	
325	敌百虫	trichlorfon	5.97	正模式	$[M+H]^+$	256.9299	127.0155	220.9532	144.9816
326	丁酰肼	daminozide	2.06	正模式	$[M+H]^+$	161.0921	143.0815	61.0760	44.0495
327	3-羟基克百威	3-hydroxy-carbofuran	5.61	正模式	$[M+H]^+$	238.1074	220.0968	181.0859	163.0754
328	啶虫脒	acetamiprid	5.86	正模式	$[M+H]^+$	223.0745	126.0105	56.0495	187.0978
329	涕灭威	aldicarb	6.55	正模式	$[M+NH_4]^+$	208.1114	89.0419	116.0528	70.0651
330	涕灭威亚砜	aldicarb-sulfoxide	4.62	正模式	$[M+H]^+$	207.0798	132.0478	89.0419	105.0369
331	涕灭威砜	aldicarb-sulfone	4.82	正模式	$[M+H]^+$	223.0747	148.0426	76.0393	
332	唑嘧菌胺	ametoctradin	12.10	正模式	$[M+H]^+$	276.2183	177.1009	176.0931	149.0822
333	氨唑草酮	amicarbazone	7.02	正模式	$[M+H]^+$	242.1612	143.1008	43.0154	
334	双甲脒	amitraz	15.39	正模式	$[M+H]^+$	294.1965	163.1230	122.0964	253.1699
335	阿维菌素 B1a	abamectin B1a	14.70	正模式	$[M+NH_4]^+$	890.5260	751.3310	449.2015	
336	苄嘧磺隆	bensulfuron-methyl	8.57	正模式	$[M+H]^+$	411.0969	149.0597	182.0560	213.2092
337	克百威	carbofuran	7.13	正模式	$[M+H]^+$	222.1125	165.0910	123.0441	137.0597
338	氯虫苯甲酰胺	chlorantraniliprole	8.51	正模式	$[M+H]^+$	483.9760	452.9338	285.9200	283.9221
339	环虫酰肼	chromafenozide	9.95	正模式	$[M+H]^+$	395.2329	175.0754	133.0648	
340	四螨嗪	clofentezine	11.68	正模式	$[M+H]^+$	303.0199	130.0400	78.0338	
341	噻虫胺	clothianidin	5.69	正模式	$[M+H]^+$	250.0160	165.0240	150.0006	
342	丁醚脲	diafenthiuron	13.82	正模式	$[M+H]^+$	385.2308	278.1539	287.1179	
343	除虫脲	diflubenzuron	10.61	正模式	$[M+H]^+$	311.0393	158.0412	141.0146	
344	甲氟磷	dimefox	5.61	正模式	$[M+H]^+$	155.0744	135.0682	92.0260	
345	唑隆	dimefuron	8.59	正模式	$[M+H]^+$	339.1218	167.0002	72.0444	46.0651
346	醚菌胺	dimoxystrobin	10.87	正模式	$[M+H]^+$	327.1703	238.1226	116.0495	
347	呋虫胺	dinotefuran	4.68	正模式	$[M+H]^+$	203.1139	114.1026	87.0791	
348	敌草隆	diuron	8.42	正模式	$[M+H]^+$	233.0243	159.9715	132.9606	

表B.1 （续）

序号	中文名	英文名	保留时间（min）	电离模式	分子离子加合形式	母离子	典型的子离子（m/z）		
349	甲氨基阿维菌素苯甲酸盐B1a	emamectin benzoate B1a	12.95	正模式	$[M+H]^+$	886.5311	82.0651	126.0913	
350	甲基胺苯磺隆	ethametsulfuron-methyl	7.37	正模式	$[M+H]^+$	411.1081	170.1036	168.0516	
351	乙虫清	ethiprole	9.16	正模式	$[M+H]^+$	396.9899	350.9480	212.9480	
352	伏草隆	fluometuron	7.73	正模式	$[M+H]^+$	233.0896	160.0369	168.0256	
353	氟吡菌胺	fluopicolide	9.53	正模式	$[M+H]^+$	382.9727	364.9621	212.0085	
354	氟嘧菌酯	fluoxastrobin	9.90	正模式	$[M+H]^+$	459.0866	188.0380	367.0393	
355	嗪草酸甲酯	fluthiacet-methyl	10.92	正模式	$[M+H]^+$	404.0300	273.9972	214.9839	
356	氯吡脲	forchlorfenuron	8.27	正模式	$[M+H]^+$	248.0585	155.0007	129.0214	93.0466
357	噻螨酮	hexythiazox	13.41	正模式	$[M+H]^+$	353.1085	168.0575	194.0367	
358	甲咪唑烟酸	imazapic	6.11	正模式	$[M+H]^+$	276.1343	216.0768	231.1128	
359	咪唑烟酸	imazapyr	5.64	正模式	$[M+H]^+$	262.1186	220.0717	202.0611	
360	咪唑喹啉酸	imazaquin	6.89	正模式	$[M+H]^+$	312.1343	86.0964	86.0964	
361	咪唑乙烟酸	imazethapyr	6.59	正模式	$[M+H]^+$	290.1499	230.0924	86.0964	
362	吡虫啉	imidacloprid	5.60	正模式	$[M+H]^+$	256.0596	175.0978	84.0556	
363	异唑隆	isouron	7.35	正模式	$[M+H]^+$	212.1394	128.0818	140.0455	
364	双炔酰菌胺	mandipropamid	9.20	正模式	$[M+H]^+$	412.1310	204.1019	356.1048	
365	磺草胺唑	metosulam	6.99	正模式	$[M+H]^+$	418.0138	140.0262	173.9872	
366	甲氧隆	metoxuron	6.49	正模式	$[M+H]^+$	229.0738	156.0211	149.0471	
367	苯菌酮	metrafenone	11.76	正模式	$[M+H]^+$	409.0645	226.9702	194.0574	
368	杀线威	oxamyl	4.87	正模式	$[M+NH_4]^+$	237.1016	72.0444	90.0550	
369	杀线威肟	oxamyl-oxime	4.55	正模式	$[M+H]^+$	163.0536	115.0502	145.0430	
370	甲基硫环磷	phosfolan-methyl	5.36	正模式	$[M+H]^+$	227.9912	140.2130	75.0989	
371	唑啉草酯	pinoxaden	11.54	正模式	$[M+H]^+$	401.2435	289.1547	101.0709	
372	吡蚜酮	pymetrozine	4.19	正模式	$[M+H]^+$	218.1036	79.0413	78.0334	
373	嘧螨醚	pyrimidifen	13.11	正模式	$[M+H]^+$	378.1943	150.1026	169.0396	

表 B.1 （续）

序号	中文名	英文名	保留时间(min)	电离模式	分子离子加合形式	母离子	典型的子离子(m/z)		
374	甲磺草胺	sulfentrazone	7.25	正模式	$[M+H]^+$	386.9892	129.0546	306.9949	
375	虫酰肼	tebufenozide	10.61	正模式	$[M+H]^+$	353.2224	297.1598	203.1543	
376	噻虫啉	thiacloprid	6.07	正模式	$[M+H]^+$	253.0309	90.0338	98.9996	
377	噻吩磺隆	thifensulfuron-methyl	6.68	正模式	$[M+H]^+$	388.0380	204.9624	141.0771	
378	甲基硫菌灵	thiophanate-methyl	6.94	正模式	$[M+H]^+$	343.0529	311.0267	226.0645	
379	杀铃脲	triflumuron	11.47	正模式	$[M+H]^+$	359.0405	176.0329	84.9907	
380	吲唑磺菌胺	amisulbrom	12.40	正模式	$[M+H]^+$	465.9649	108.0114	191.0979	
381	保棉磷	azinphos-methyl	8.60	正模式	$[M+H]^+$	318.0130	132.0444	160.0505	
382	草除灵乙酯	benazolin-ethyl ester	9.03	正模式	$[M+H]^+$	272.0143	169.9821	134.0059	
383	吡草酮	benzofenap	12.43	正模式	$[M+H]^+$	431.0924	157.0608	119.0491	
384	双草醚	bispyribac-sodium	12.44	正模式	$[M+H]^+$	431.1197	243.0400	119.0128	
385	联苯吡菌胺	bixafen	10.72	正模式	$[M+H]^+$	414.0382	91.0302	131.0426	
386	溴苯烯磷	bromfenvinphos	11.49	正模式	$[M+H]^+$	402.9263	248.8867	98.9843	169.9683
387	溴莠敏	brompyrazon	6.10	正模式	$[M+H]^+$	265.9924	104.0495	131.9443	
388	丁酮砜威	butoxycarboxim	4.74	正模式	$[M+H]^+$	223.0747	181.0529	90.0338	
389	氯溴隆	chlorbromuron	9.42	正模式	$[M+H]^+$	292.9687	203.9205	182.0241	125.0027
390	枯草隆	chloroxuron	9.93	正模式	$[M+H]^+$	291.0895	72.0449	218.0362	46.0651
391	杀鼠醚	coumatetralyl	9.73	正模式	$[M+H]^+$	293.1172	131.0855	107.0491	
392	杀鼠嘧啶	crimidine	6.48	正模式	$[M+H]^+$	172.0636	109.0760	95.0604	
393	丰索磷	fensulfothion	8.06	正模式	$[M+H]^+$	309.0379	281.0066	234.9647	
394	麦草伏甲酯	flamprop-methyl	9.70	正模式	$[M+H]^+$	336.0797	95.0496	276.0586	
395	依维菌素	ivermectin	15.66	正模式	$[M+Na]^+$	897.4971	753.4185	329.0041	
396	氯磺酰草胺	mefluidide	6.94	正模式	$[M+H]^+$	311.0672	178.1101	269.0567	135.0917
397	脱氨基苯嗪草酮	metamitron-desamino	5.96	正模式	$[M+H]^+$	188.0818	104.0495	119.0604	
398	磺乐灵	nitralin	10.66	正模式	$[M+H]^+$	346.1067	304.0564	262.0182	141.1148

表 B.1 （续）

序号	中文名	英文名	保留时间（min）	电离模式	分子离子加合形式	母离子	典型的子离子（m/z）		
399	氨磺灵	oryzalin	10.28	正模式	$[M+H]^+$	347.1020	198.0134	288.0284	
400	嗪草酮	oxaziclomefone	12.57	正模式	$[M+H]^+$	376.0866	189.8757	160.7980	
401	多杀霉素 A	spinosad A	11.79	正模式	$[M+H]^+$	732.4681	142.1226	98.0964	
402	多杀霉素 D	spinosad D	12.56	正模式	$[M+H]^+$	746.4838	142.1226	98.0964	
403	磺草酮	sulcotrione	6.30	正模式	$[M+H]^+$	329.0245	111.0441	68.9971	
404	氟啶虫胺腈	sulfoxaflor	6.03	正模式	$[M+H]^+$	278.0569	173.9547	153.9066	
405	噻苯隆	thidiazuron	7.09	正模式	$[M+H]^+$	221.0492	127.9913	77.0386	
406	咪唑嗪	triazoxide	8.12	正模式	$[M+H]^+$	248.0334	149.9979	98.9996	
407	氟苯虫酰胺	flubendiamide	10.65	负模式	$[M-H]^-$	681.0160	254.0148	274.1440	
408	虱螨脲	lufenuron	12.90	负模式	$[M-H]^-$	508.9711	174.9597	201.9468	
409	杀鼠灵	warfarin	9.25	负模式	$[M-H]^-$	307.0976	161.0244	250.0635	57.0346
410	赛硫磷	amidithion	6.30	正模式	$[M+H]^+$	274.0331	198.9647	124.9821	170.9698
411	苯螨特	benzoximate	11.64	正模式	$[M+H]^+$	364.0946	199.0157	95.0491	
412	炔草隆	buturon	8.22	正模式	$[M+H]^+$	237.0789	84.0808	126.0105	222.0554
413	丁草敌	butylate	12.66	正模式	$[M+H]^+$	218.1573	156.1383	162.0947	100.0757
414	醚磺隆	cinosulfuron	6.52	正模式	$[M+H]^+$	414.1078	157.0720	121.0284	
415	解草酯	cloquintocet–mexyl	13.04	正模式	$[M+H]^+$	336.1361	238.0266	192.0206	179.0128
416	丁香菌酯	coumoxystrobin	12.96	正模式	$[M+H]^+$	437.1959	145.0510	205.0696	
417	苄草隆	cumyluron	9.78	正模式	$[M+H]^+$	303.1259	119.0855	125.0153	
418	溴氰虫酰胺	cyantraniliprole	7.39	正模式	$[M+H]^+$	473.0123	285.8974	443.9171	
419	环丙嘧磺隆	cyclosulfamuron	9.85	正模式	$[M+H]^+$	422.1129	139.0376	279.0387	
420	赛灭磷	cythioate	6.33	正模式	$[M+H]^+$	297.9967	217.0083	283.9811	
421	硫酮菌唑	prothioconazole– desthi	10.54	正模式	$[M+H]^+$	312.0665	70.0400	125.0153	189.0466
422	氯亚磷	dialifos	11.79	正模式	$[M+H]^+$	394.0098	181.0050	158.9698	
423	哌草丹	dimepiperate	12.27	正模式	$[M+H]^+$	264.1417	119.0855	91.0542	

表 B.1 （续）

序号	中文名	英文名	保留时间(min)	电离模式	分子离子加合形式	母离子	典型的子离子(m/z)		
424	多拉菌素	doramectin	15.22	正模式	$[M+Na]^+$	921.4971	777.4185	789.9932	
425	噻唑菌胺	ethaboxam	7.71	正模式	$[M+H]^+$	321.0838	183.0587	237.0805	68.0495
426	硫草敌	ethiolate	8.66	正模式	$[M+H]^+$	162.0947	100.0757	72.0444	
427	乙氧磺隆	ethoxysulfuron	9.45	正模式	$[M+H]^+$	399.0969	236.0329	182.0560	
428	乙氧苯草胺	etobenzanid	11.24	正模式	$[M+H]^+$	340.0502	149.0599	121.0284	
429	烯肟菌胺	fenaminstrobin	12.29	正模式	$[M+H]^+$	434.1033	171.0870	136.1147	
430	氟啶酮	fluridone	8.59	正模式	$[M+H]^+$	330.1100	310.1038	290.0976	242.0964
431	吡唑萘菌胺	isopyrazam	11.94	正模式	$[M+H]^+$	360.1882	244.0881	340.1820	
432	噻嗯菊酯	kadethrin	12.25	正模式	$[M+H]^+$	397.1468	171.0804	91.0542	143.0855
433	乳氟禾草灵	lactofen	12.70	正模式	$[M+NH_4]^+$	479.0827	344.1021	223.1105	
434	环草定	lenacil	8.23	正模式	$[M+H]^+$	235.1441	136.0393	135.0553	
435	灭蚜磷	mecarbam	10.21	正模式	$[M+H]^+$	330.0593	199.0011	116.0342	
436	甲基二磺隆	mesosulfuron-methyl	7.68	正模式	$[M+H]^+$	504.0853	99.0427	306.0067	
437	吡噻菌胺	penthiopyrad	10.91	正模式	$[M+H]^+$	360.1352	276.0413	177.0270	
438	苯醚菊酯	phenothrin	14.93	正模式	$[M+H]^+$	351.1955	183.0804	237.1274	249.1274
439	双唑草腈	pyraclonil	7.58	正模式	$[M+H]^+$	315.1119	257.1040	263.1003	
440	啶磺草胺	pyroxsulam	6.80	正模式	$[M+H]^+$	435.0693	258.0281	195.0738	
441	抑食肼	yishijing	7.65	负模式	$[M-H]^-$	295.1452	105.0224	241.1020	
442	硅氟唑	simeconazole	10.20	正模式	$[M+H]^+$	294.1432	70.0400	135.0605	73.0468
443	酰嘧磺隆	amidosulfuron	7.32	正模式	$[M+H]^+$	370.0486	261.0288	218.0230	
444	地散磷	bensulide	10.60	正模式	$[M+H]^+$	398.0678	218.0304	141.0005	200.0199
445	甲基溴苯烯磷	bromfenvinphos-methyl	10.11	正模式	$[M+H]^+$	374.8950	127.0155	248.8868	169.9685
446	环丙酰菌胺	carpropamid	11.15	正模式	$[M+H]^+$	334.0527	139.0309	196.0291	160.0524
447	毒虫畏	chlorfenvinphos	11.28	正模式	$[M+H]^+$	358.9768	155.0468	127.0155	204.9371
448	灭幼脲	chlorobenzuron	11.01	正模式	$[M+H]^+$	309.0192	156.1125	139.2100	

表 B.1 （续）

序号	中文名	英文名	保留时间（min）	电离模式	分子离子加合形式	母离子	典型的子离子（m/z）		
449	吲哚酮草酯	cinidon-ethyl	12.92	正模式	$[M+H]^+$	394.0607	348.0189	366.0294	107.0491
450	育畜磷	crufomate	10.66	正模式	$[M+H]^+$	292.0864	126.0315	236.0238	260.0602
451	棉隆	dazomet	5.01	正模式	$[M+H]^+$	163.0358	119.9936	90.0372	95.0492
452	甲基内吸磷	demeton-methyl	7.25	正模式	$[M+H]^+$	231.0273	114.9613	142.9926	174.9647
453	敌草净	desmetryn	7.95	正模式	$[M+H]^+$	214.1121	172.0651	82.0400	91.0324
454	胺鲜酯	diethyl aminoethyl hexanoate	6.03	正模式	$[M+H]^+$	216.1958	143.0414	100.0614	
455	烯肟菌酯	enestroburin	12.69	正模式	$[M+H]^+$	400.1310	178.0415	145.1310	136.9665
456	胺苯吡菌酮	fenpyrazamine	9.76	正模式	$[M+H]^+$	332.1427	228.8899	272.0014	
457	烯虫乙酯	hydroprene	16.07	正模式	$[M+H]^+$	267.2319	117.1021	151.0432	
458	异菌脲	iprodione	10.66	正模式	$[M+H]^+$	330.0407	242.9734	141.0670	
459	硝磺草酮	mesotrione	5.93	正模式	$[M+H]^+$	340.0485	227.9979	104.1321	
460	溴谷隆	metobromuron	8.03	正模式	$[M+H]^+$	259.0077	169.9600	148.0631	170.9678
461	甲磺隆	metsulfuron-methyl	6.79	正模式	$[M+H]^+$	382.0816	167.0564	199.0060	141.0771
462	环氧嘧磺隆	oxasulfuron	6.64	正模式	$[M+H]^+$	407.1020	150.0662	209.9842	57.0335
463	甲氯酰草胺	pentanochlor	10.92	正模式	$[M+H]^+$	240.1150	142.0413	107.0230	71.0855
464	烯草胺	pethoxamid	10.21	正模式	$[M+H]^+$	296.1412	131.0855	250.0993	73.0648
465	丙硫菌唑	prothioconazole	11.46	正模式	$[M+H]^+$	344.0386	326.0280	125.0153	
466	吡草醚	pyraflufen-ethyl	11.08	正模式	$[M+H]^+$	413.0277	338.9898	288.9930	253.0163
467	唑胺菌酯	pyrametostrobin	10.70	正模式	$[M+H]^+$	382.1761	176.0332	215.6519	
468	另丁津	sebuthylazine	9.14	正模式	$[M+H]^+$	230.1167	174.0541	96.0556	132.0323
469	硫丙磷	sulprofos	13.49	正模式	$[M+H]^+$	323.0358	218.9698	139.0212	77.0420
470	久效威砜	thiofanox sulfone	5.77	正模式	$[M+H]^+$	251.1060	57.0700	194.0845	76.0393
471	苯唑草酮	topramezone	5.29	正模式	$[M+H]^+$	364.0962	334.0856	125.0346	
472	威菌磷	triamiphos	8.02	正模式	$[M+H]^+$	295.1431	135.0679	92.0260	
473	氟胺磺隆	triflusulfuron-methyl	9.11	正模式	$[M+H]^+$	493.1112	264.0698	238.0907	

表 B.1 （续）

序号	中文名	英文名	保留时间(min)	电离模式	分子离子加合形式	母离子	典型的子离子(m/z)		
474	三氟甲磺隆	tritosulfuron	7.79	正模式	$[M+H]^+$	446.0352	195.0479	221.0276	110.0212
475	丁虫腈	flufiprole	10.99	负模式	$[M-H]^-$	488.9784	422.1031	407.1414	
476	氰氟虫腙	metaflumizone	12.66	正模式	$[M+H]^+$	507.1250	287.0791	178.0472	116.0495
477	杀虫磺	bensultap	9.13	正模式	$[M+H]^+$	432.0426	290.3378	213.0039	102.9671
478	苯并烯氟菌唑	benzovindiflupyr	11.06	正模式	$[M+H]^+$	398.0633	368.2911	90.9820	
479	氯嘧磺隆	chlorimuron-ethyl	9.31	正模式	$[M+H]^+$	415.0474	186.0060	213.0209	121.0284
480	炔草酯	clodinafop-propargyl	10.84	正模式	$[M+H]^+$	350.0590	266.0374	238.0403	91.0542
481	氯酯磺草胺	cloransulam-methyl	7.31	正模式	$[M+H]^+$	430.0383	153.0141	370.2381	397.8793
482	氰霜唑	cyazofamid	10.21	正模式	$[M+H]^+$	325.0521	108.0114	261.0902	217.0401
483	双氯磺草胺	diclosulam	7.43	正模式	$[M+H]^+$	405.9938	160.9792	223.9327	314.0006
484	N，N-二甲基-N’-甲苯磺酰二胺	DMST	7.23	正模式	$[M+H]^+$	215.0849	106.0651	79.0542	107.0730
485	敌菌酮	drazoxolon	10.27	正模式	$[M+H]^+$	238.0378	177.0214	131.0651	98.9996
486	双氟磺草胺	florasulam	6.22	正模式	$[M+H]^+$	360.0373	129.0385	191.9925	144.0255
487	氟唑磺隆	flucarbazone-sodium	5.95	正模式	$[M+H]^+$	419.0244	130.0611	115.0376	75.0396
488	氟吡磺隆	flucetosulfuron	8.60	正模式	$[M+H]^+$	488.1246	156.0102	273.0164	
489	唑嘧磺草胺	flumetsulam	5.65	正模式	$[M+H]^+$	326.0518	129.0385	144.0256	191.9925
490	甲酰氨基嘧磺隆	foramsulfuron	7.26	正模式	$[M+H]^+$	453.1187	182.0560	255.0434	272.0700
491	氯虫酰肼	halofenozide	9.18	正模式	$[M+H]^+$	331.1208	105.0335	138.9945	72.0808
492	亚胺唑	imibenconazole	13.00	正模式	$[M+H]^+$	410.9999	125.0153	341.9672	171.0031
493	种菌唑	ipconazole	12.39	正模式	$[M+H]^+$	334.1681	70.0400	125.0153	
494	灭草隆	monuron	7.02	正模式	$[M+H]^+$	199.0633	72.0444	126.0105	98.9996
495	丙炔草酮	oxadiargyl	11.48	正模式	$[M+H]^+$	341.0454	233.0031	257.9746	
496	草酸	propaquizafop	12.92	正模式	$[M+H]^+$	444.1321	137.1456	237.1139	
497	唑菌酯	pyraoxystrobin	11.44	正模式	$[M+H]^+$	413.1263	205.0578	368.2146	
498	苄草唑	pyrazoxyfen	11.13	正模式	$[M+H]^+$	403.0611	91.0542	105.0335	119.0491

表 B.1 （续）

序号	中文名	英文名	保留时间（min）	电离模式	分子离子加合形式	母离子	典型的子离子（m/z）		
499	喹草酸	quinmerac	5.96	正模式	$[M+H]^+$	222.0316	204.0211	176.0262	141.0573
500	氟唑环菌胺	sedaxane	9.78	正模式	$[M+H]^+$	332.1569	158.8198	291.7951	311.7919
501	环草隆	siduron	9.19	正模式	$[M+H]^+$	233.1649	137.0709	94.0651	55.0542
502	硅噻菌胺	silthiofam	10.80	正模式	$[M+H]^+$	268.1186	252.0873	139.0212	73.0468
503	磺酰磺隆	sulfosulfuron	8.44	正模式	$[M+H]^+$	471.0751	211.0536	279.0394	261.0288
504	双硫磷	temephos	12.81	正模式	$[M+H]^+$	466.9970	142.9928	341.0066	404.9780
505	甲氧噻草胺	thenylchlor	10.17	正模式	$[M+H]^+$	324.0820	127.0212	97.0107	65.0386
506	硫双威	thiodicarb	7.35	正模式	$[M+H]^+$	355.0563	88.0215	107.9936	149.0202
507	醚苯磺隆	triasulfuron	6.67	正模式	$[M+H]^+$	402.0633	167.0564	141.0771	121.0284
508	嗪氨灵	triforine	8.35	正模式	$[M+H]^+$	432.9321	387.9106	342.8891	214.9904
509	氯吡嘧磺隆	halosulfuron-methyl	9.40	正模式	$[M+H]^+$	435.0484	182.0560	139.0502	83.0245
510	调环酸	prohexadione	6.48	负模式	$[M-H]^-$	211.0612	123.1045	111.1400	
511	霜脲氰	cymoxanil	6.14	正模式	$[M+H]^+$	199.0826	83.0240	129.0295	111.0189
512	吡氟酰草胺	diflufenican	12.11	正模式	$[M+H]^+$	395.0813	266.0423	238.0474	246.0361
513	唑菌酮	famoxadone	11.21	正模式	$[M+NH_4]^+$	392.1605	331.1441	238.1101	237.1022
514	四唑酰草胺	fentrazamide	11.05	正模式	$[M+H]^+$	350.1378	197.1285	154.1226	115.0502
515	嘧螨酯	fluacrypyrim	11.90	正模式	$[M+H]^+$	427.1475	205.0859	145.0648	
516	氟啶蜱脲	fluazuron	13.27	正模式	$[M+H]^+$	506.0092	158.0412	348.9742	141.0145
517	氟螨噻	flubenzimine	12.48	正模式	$[M+H]^+$	417.0603	187.0478	167.0415	136.0214
518	氟节胺	flumetralin	13.66	正模式	$[M+H]^+$	422.0525	143.0087	341.0908	107.0303
519	氟烯草酸	flumiclorac-pentyl	12.71	正模式	$[M+H]^+$	424.1322	308.0484	326.0590	107.0491
520	氯噻啉	imidaclothiz	5.75	正模式	$[M+H]^+$	262.0160	181.1146	122.2094	
521	甲基碘磺隆	iodosulfuron-methyl	8.10	正模式	$[M+H]^+$	507.9782	167.0564	141.0771	324.9026
522	唑酰草胺	metamifop	12.56	正模式	$[M+H]^+$	441.1012	287.9896	188.0607	
523	氟唑菌苯胺	penflufen	10.91	正模式	$[M+H]^+$	318.1976	141.0459	234.1037	115.0666

表 B.1 （续）

序号	中文名	英文名	保留时间(min)	电离模式	分子离子加合形式	母离子	典型的子离子(m/z)		
524	五氟磺草胺	penoxsulam	7.23	正模式	$[M+H]^+$	484.0709	195.0751	164.0567	444.0584
525	甲基氟嘧磺隆	primisulfuron-methyl	9.19	正模式	$[M+H]^+$	469.0436	254.0179	199.0053	135.0427
526	丙氧喹啉	proquinazid	15.34	正模式	$[M+H]^+$	373.0407	288.9468	271.9203	330.9938
527	吡唑硫磷	pyraclofos	11.56	正模式	$[M+H]^+$	361.0537	256.9877	138.0104	140.0265
528	吡嘧磺隆	pyrazosulfuron-ethyl	9.84	正模式	$[M+H]^+$	415.1030	182.0560	139.0502	157.0608
529	嘧啶肟草醚	pyribenzoxim	12.72	正模式	$[M+H]^+$	610.1932	180.1114	413.1572	
530	稗草畏	pyributicarb	13.24	正模式	$[M+H]^+$	331.1475	181.0430	126.0550	190.1226
531	哒嗪硫磷	pyridaphenthion	9.69	正模式	$[M+H]^+$	341.0719	189.0659	313.0406	92.0495
532	啶菌唑	pyrisoxazole	9.27	正模式	$[M+H]^+$	289.1102	151.0871	120.0444	122.0606
533	二氯喹啉酸	quinclorac	6.16	正模式	$[M+H]^+$	241.9770	223.9664	213.9821	161.0027
534	噻呋酰胺	thifluzamide	10.24	正模式	$[M+H]^+$	526.8494	166.0143	358.8793	
535	虫线磷	thionazin	8.20	正模式	$[M+H]^+$	249.0457	113.0168	97.0396	192.9828
536	螨蜱胺	tifatol	5.95	正模式	$[M+H]^+$	219.0951	171.0917	144.0808	77.0386
537	抗倒酯	trinexapac-ethyl	8.47	正模式	$[M+H]^+$	253.1071	69.0335	207.0652	186.0887
538	6-羟基灭草松	6-hydroxy-bentazone	6.17	负模式	$[M-H]^-$	255.0445	148.1014	191.1201	
539	灭草松	bentazone	6.43	负模式	$[M-H]^-$	239.0496	132.0329	197.0026	133.0407
540	氟磺胺草醚	fomesafen	8.62	负模式	$[M-H]^-$	436.9827	194.9830	72.0091	198.0303

附 录 C
（资料性）
540种农药的提取离子色谱图

C.1 540种农药的提取离子色谱图（EIC）如图C.1～图C.540所示。

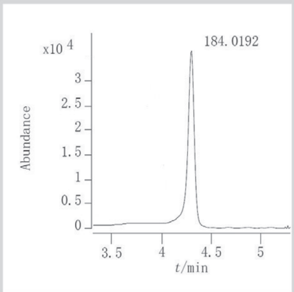

图 C.1 乙酰甲胺磷 EIC

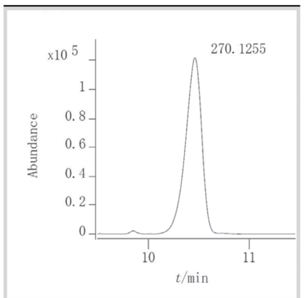

图 C.2 乙草胺 EIC

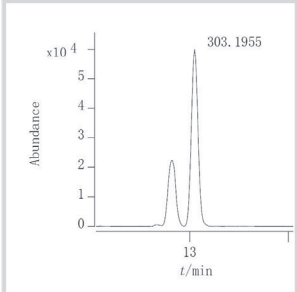

图 C.3 烯丙菊酯 EIC

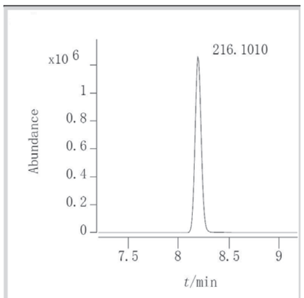

图 C.4 莠去津 EIC

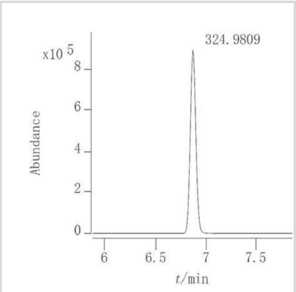

图 C.5 甲基吡啶磷 EIC

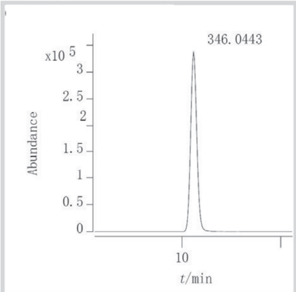

图 C.6 益棉磷 EIC

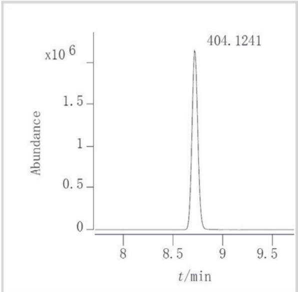

图 C.7 嘧菌酯 EIC

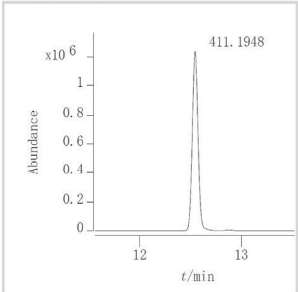

图 C.8 丙硫克百威 EIC

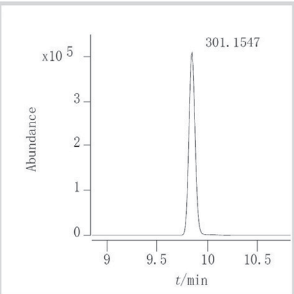

图 C.9 联苯肼酯 EIC

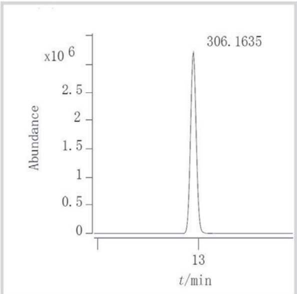

图 C.10 噻嗪酮 EIC

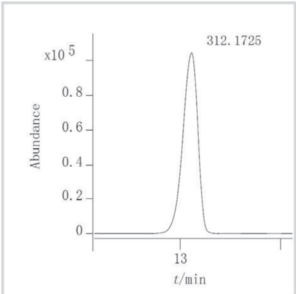

图 C.11 丁草胺 EIC

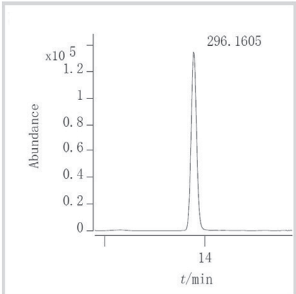

图 C.12 仲丁灵 EIC

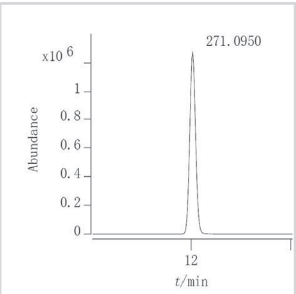

图 C.13 硫线磷 EIC

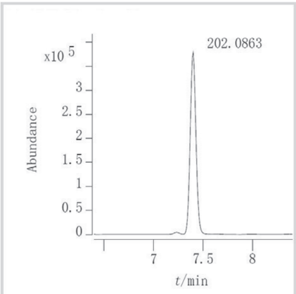

图 C.14 甲萘威 EIC

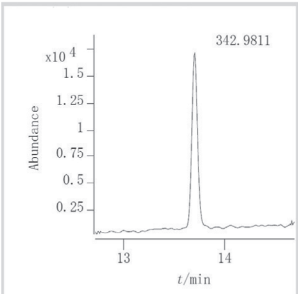

图 C.15 三硫磷 EIC

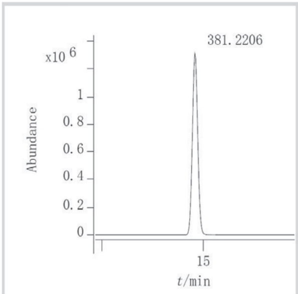

图 C.16 丁硫克百威 EIC

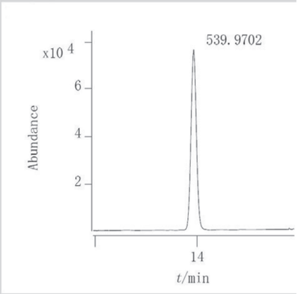

图 C.17 氟啶脲 EIC

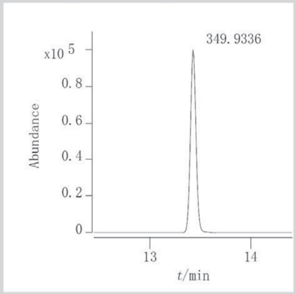

图 C.18 毒死蜱 EIC

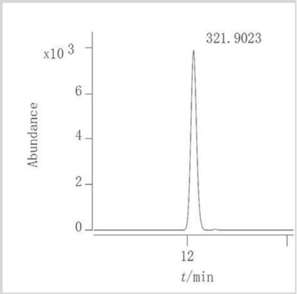

图 C.19 甲基毒死蜱 EIC

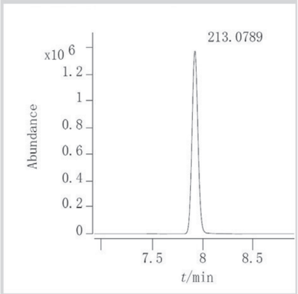

图 C.20 绿麦隆 EIC

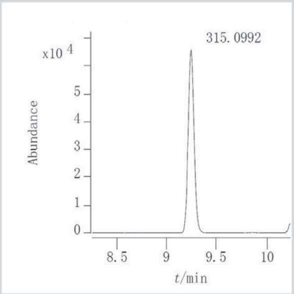

图 C.21 巴毒磷 EIC

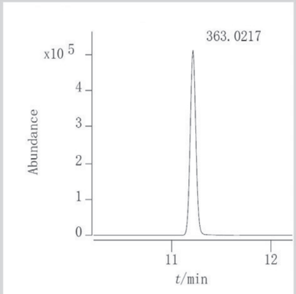

图 C.22 蝇毒磷 EIC

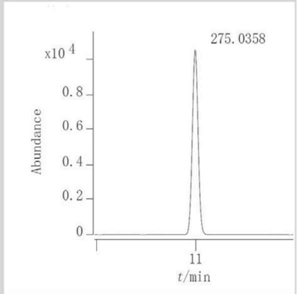

图 C.23 乙拌磷 EIC

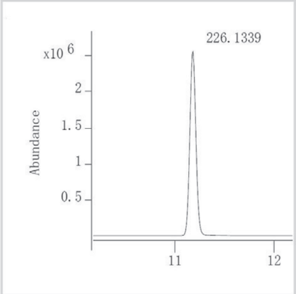

图 C.24 嘧菌环胺 EIC

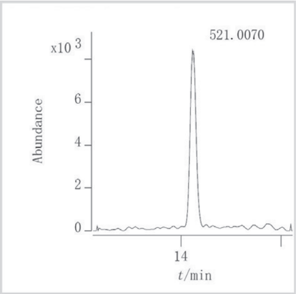

图 C.25 溴氰菊酯 EIC

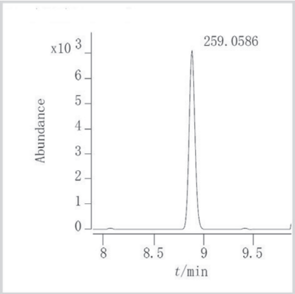

图 C.26 内吸磷 EIC

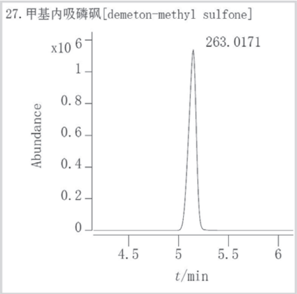

图 C.27 甲基内吸磷砜 EIC

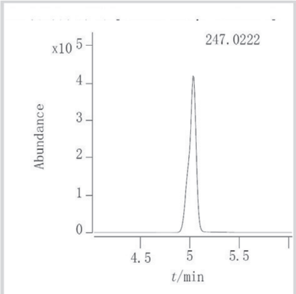

图 C.28 甲基内吸磷亚砜 EIC

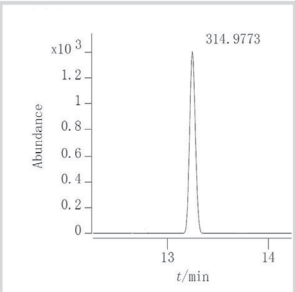

图 C.29 除线磷 EIC

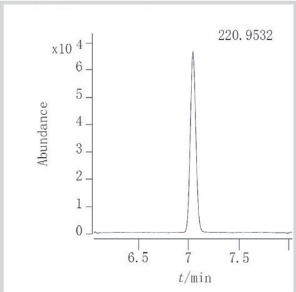

图 C.30 敌敌畏 EIC

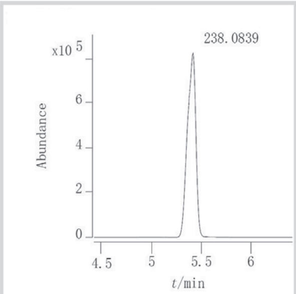

图 C.31 百治磷 EIC

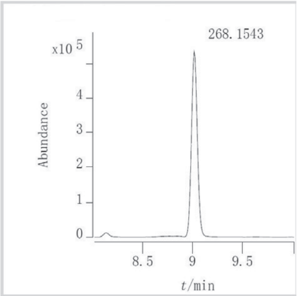

图 C.32 乙霉威 EIC

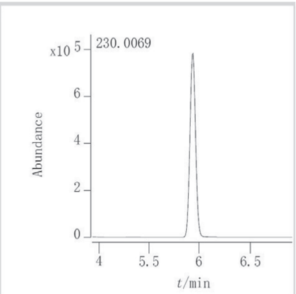

图 C.33 乐果 EIC

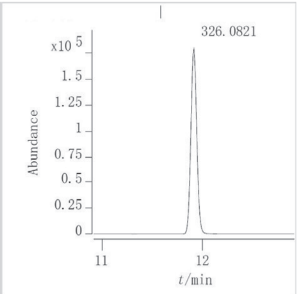

图 C.34 烯唑醇 EIC

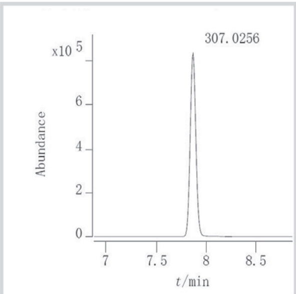

图 C.35 乙拌磷砜 EIC

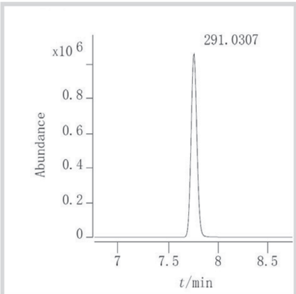

图 C.36 乙拌磷亚砜 EIC

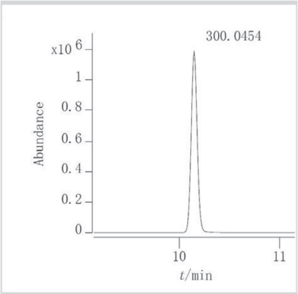

图 C.37 灭菌磷 EIC

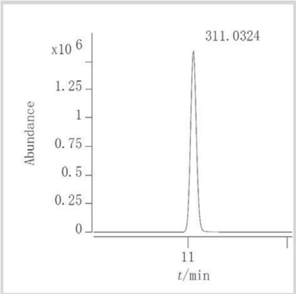

图 C.38 敌瘟磷 EIC

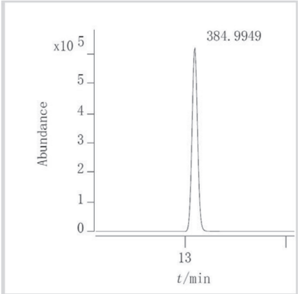

图 C.39 乙硫磷 EIC

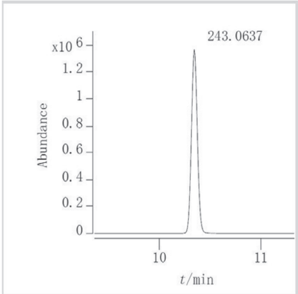

图 C.40 灭线磷 EIC

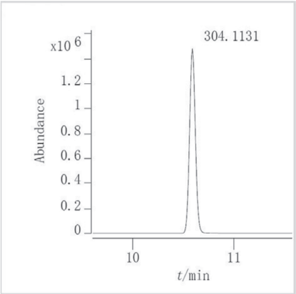

图 C.41 苯线磷 EIC

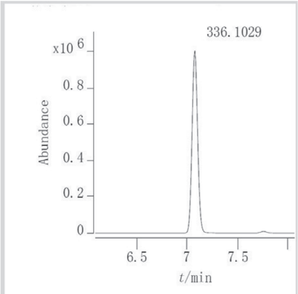

图 C.42 苯线磷砜 EIC

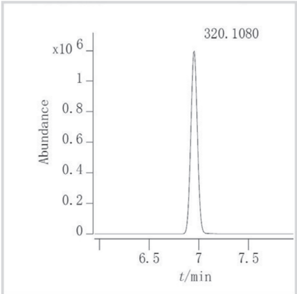

图 C.43 苯线磷亚砜 EIC

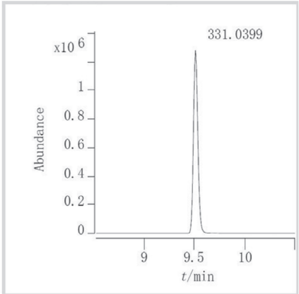

图 C.44 氯苯嘧啶醇 EIC

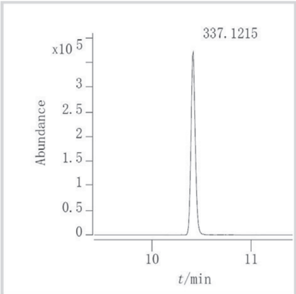

图 C.45 腈苯唑 EIC

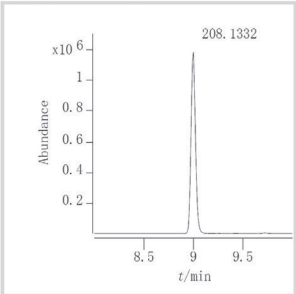

图 C.46 仲丁威 EIC

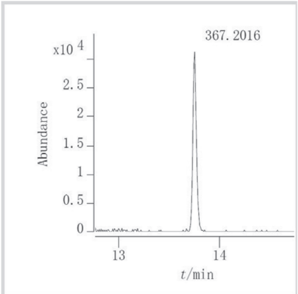

图 C.47 甲氰菊酯 EIC

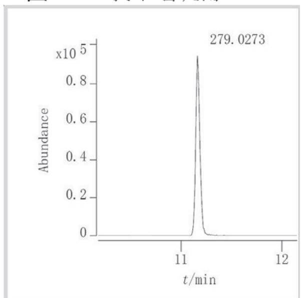

图 C.48 倍硫磷 EIC

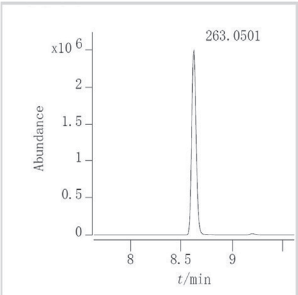

图 C.49 氧倍硫磷 EIC

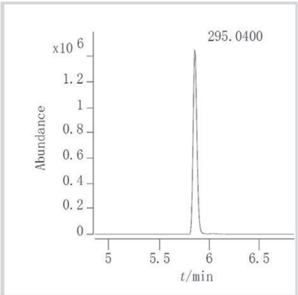

图 C.50 氧倍硫磷砜 EIC

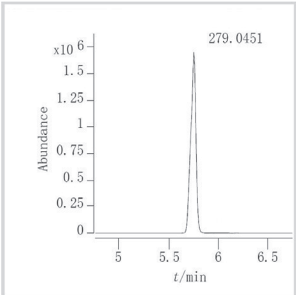

图 C.51 氧倍硫磷亚砜 EIC

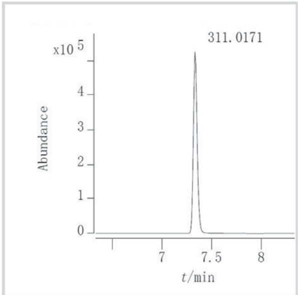

图 C.52 倍硫磷砜 EIC

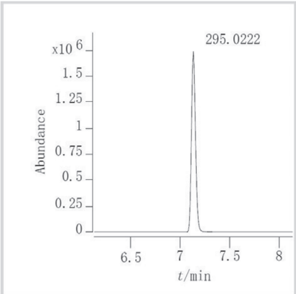

图 C.53 倍硫磷亚砜 EIC

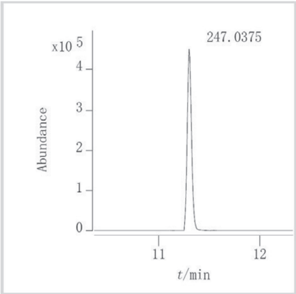

图 C.54 地虫硫磷 EIC

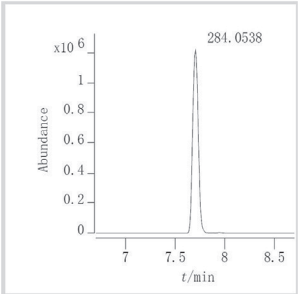

图 C.55 噻唑磷 EIC

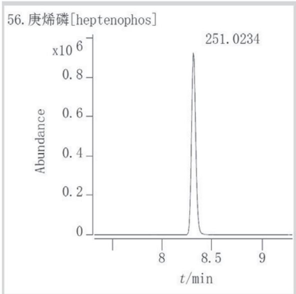

图 C.56 庚烯磷 EIC

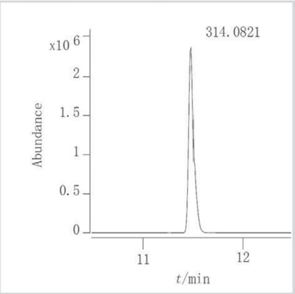

图 C.57 己唑醇 EIC

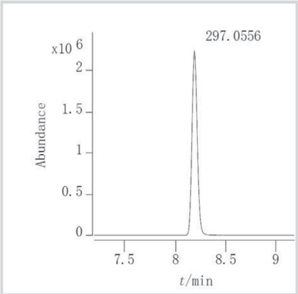

图 C.58 抑霉唑 EIC

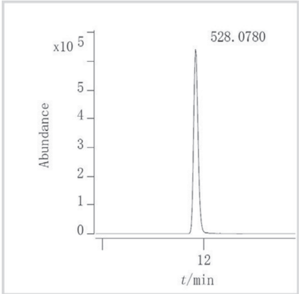

图 C.59 茚虫威 EIC

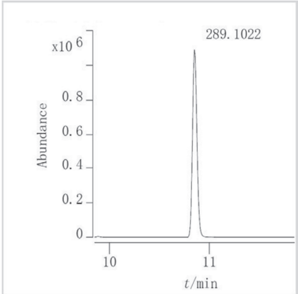

图 C.60 异稻瘟净 EIC

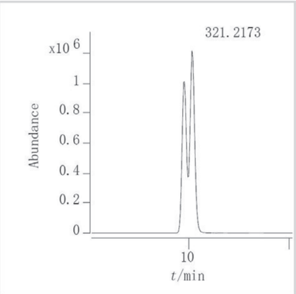

图 C.61 缬霉威 EIC

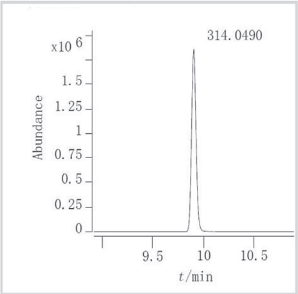

图 C.62 氯唑磷 EIC

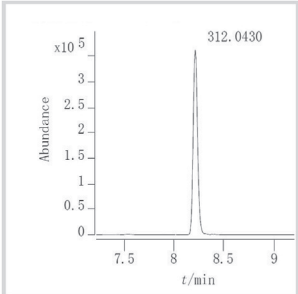

图 C.63 水胺硫磷 EIC

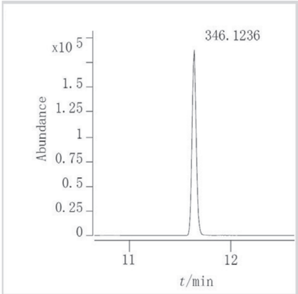

图 C.64 异柳磷 EIC

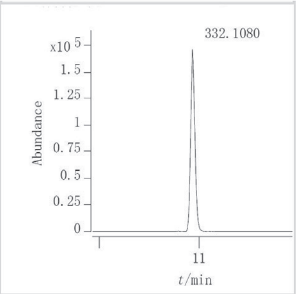

图 C.65 甲基异柳磷 EIC

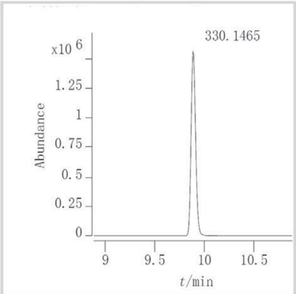

图 C.66 氧异柳磷砜 EIC

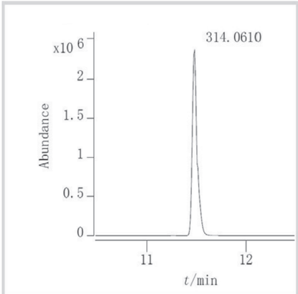

图 C.67 噁唑磷 EIC

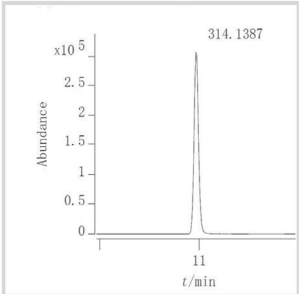

图 C.68 醚菌酯 EIC

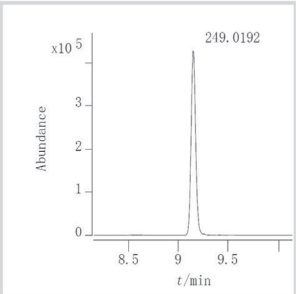

图 C.69 利谷隆 EIC

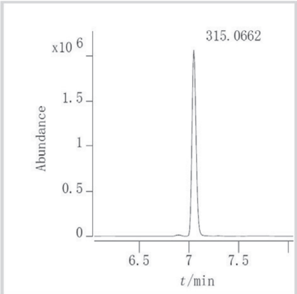

图 C.70 马拉氧磷 EIC

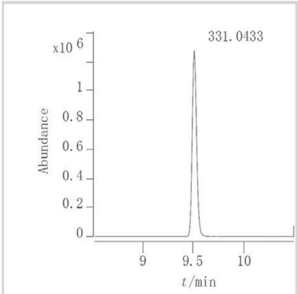

图 C.71 马拉硫磷 EIC

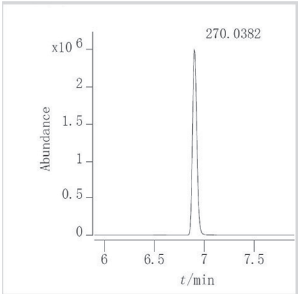

图 C.72 地胺磷 EIC

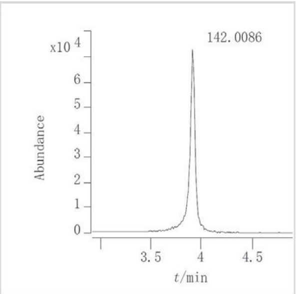

图 C.73 甲胺磷 EIC

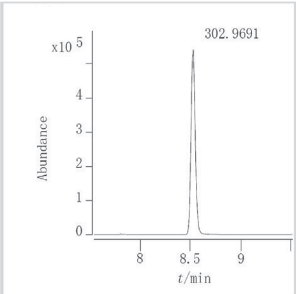

图 C.74 杀扑磷 EIC

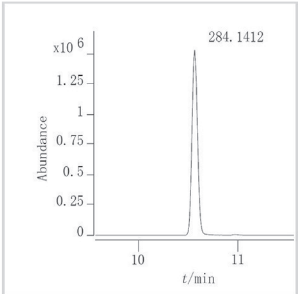

图 C.75 异丙甲草胺 EIC

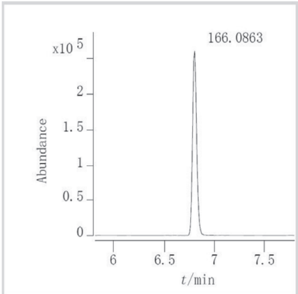

图 C.76 速灭威 EIC

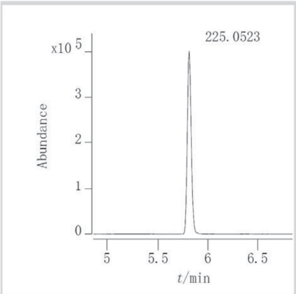

图 C.77 速灭磷 EIC

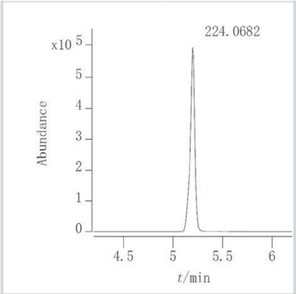

图 C.78 久效磷 EIC

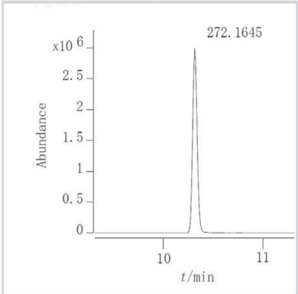

图 C.79 敌草胺 EIC

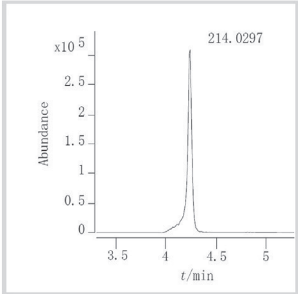

图 C.80 氧乐果 EIC

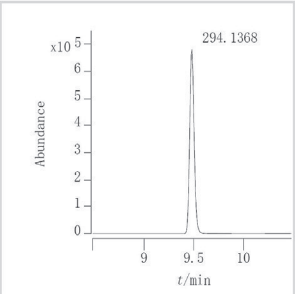

图 C.81 多效唑 EIC

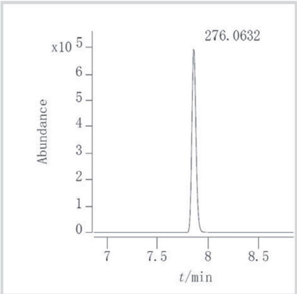

图 C.82 对氧磷 EIC

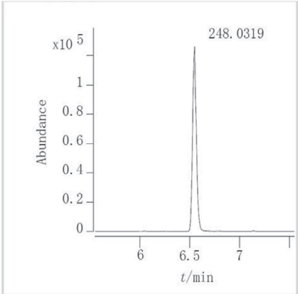

图 C.83 甲基对氧磷 EIC

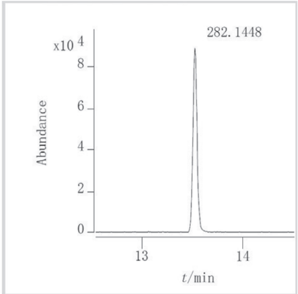

图 C.84 二甲戊灵 EIC

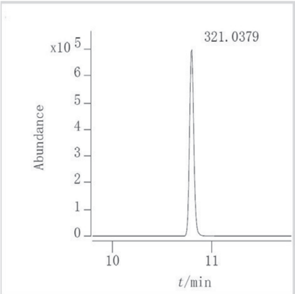

图 C.85 稻丰散 EIC

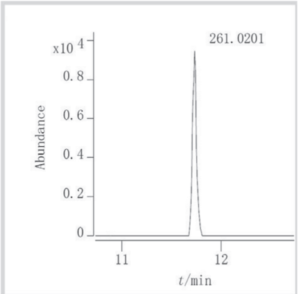

图 C.86 甲拌磷 EIC

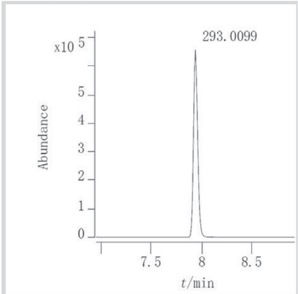

图 C.87 甲拌磷砜 EIC

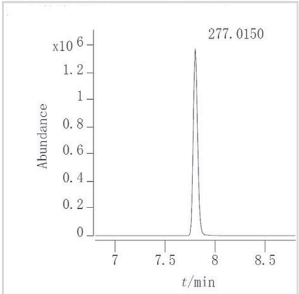

图 C.88 甲拌磷亚砜 EIC

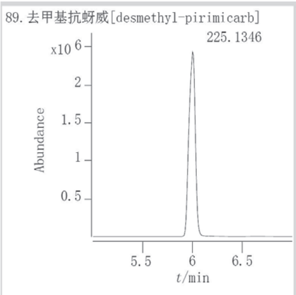

图 C.89 去甲基抗蚜威 EIC

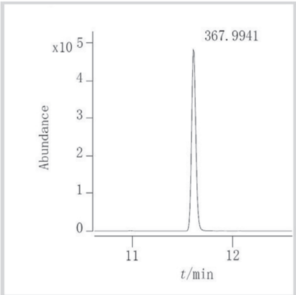

图 C.90 伏杀硫磷 EIC

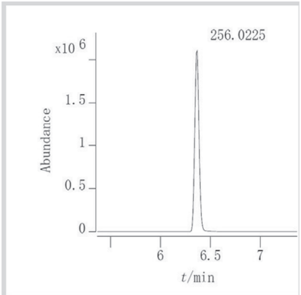

图 C.91 硫环磷 EIC

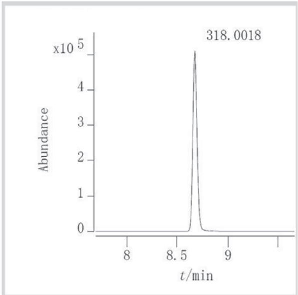

图 C.92 亚胺硫磷 EIC

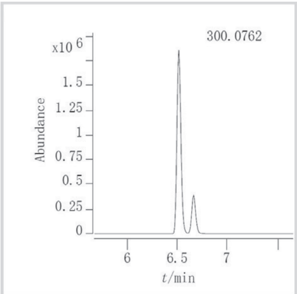

图 C.93 磷胺 EIC

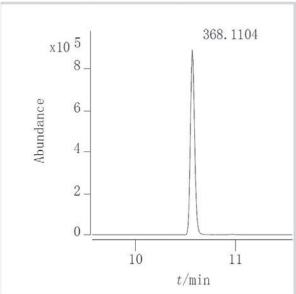

图 C.94 啶氧菌酯 EIC

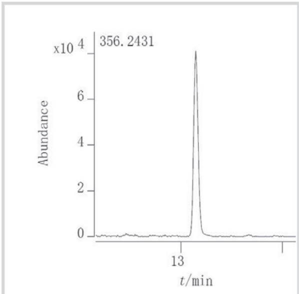

图 C.95 增效醚 EIC

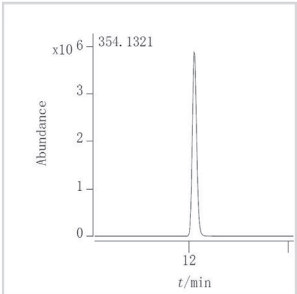

图 C.96 哌草磷 EIC

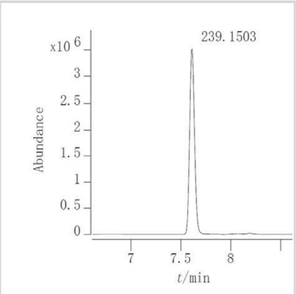

图 C.97 抗蚜威 EIC

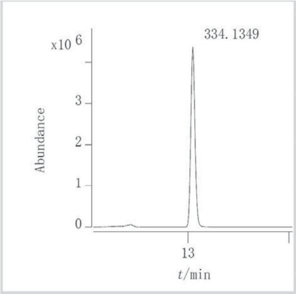

图 C.98 嘧啶磷 EIC

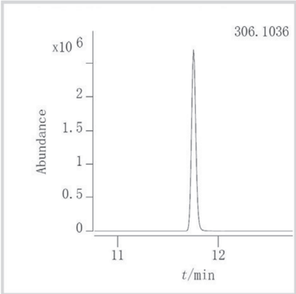

图 C.99 甲基嘧啶磷 EIC

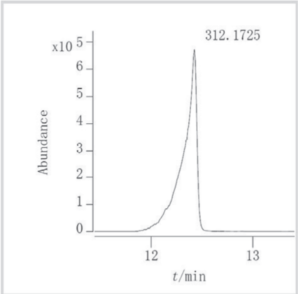

图 C.100 丙草胺 EIC

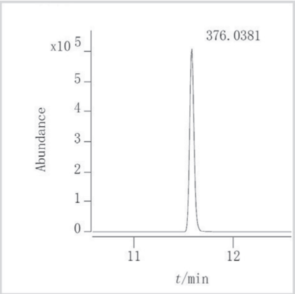

图 C.101 咪鲜胺 EIC

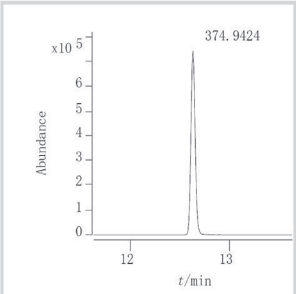

图 C.102 丙溴磷 EIC

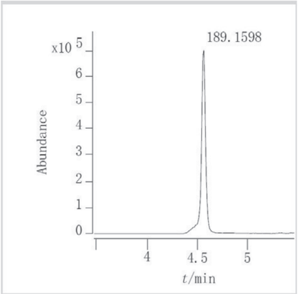

图 C.103 霜霉威 EIC

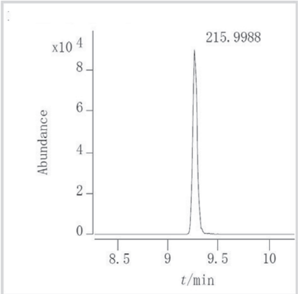

图 C.104 敌稗 EIC

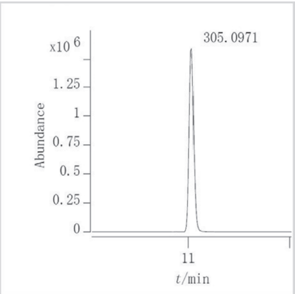

图 C.105 丙虫磷 EIC

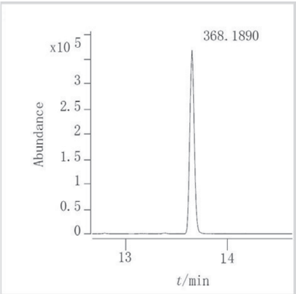

图 C.106 炔螨特 EIC

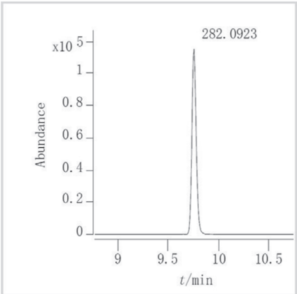

图 C.107 胺丙畏 EIC

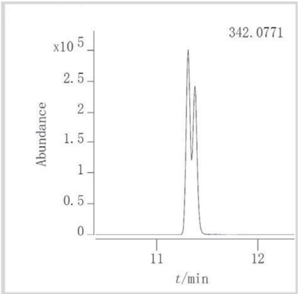

图 C.108 丙环唑 EIC

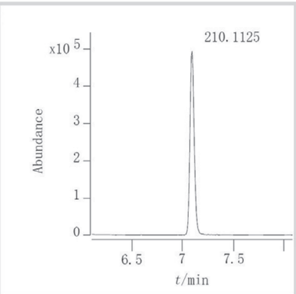

图 C.109 残杀威 EIC

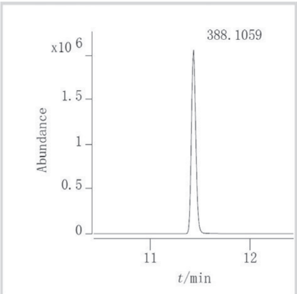

图 C.110 吡唑醚菌酯 EIC

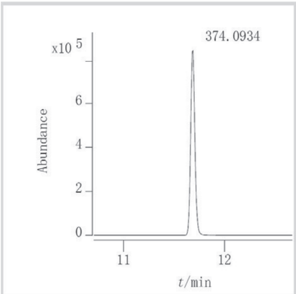

图 C.111 吡嘧磷 EIC

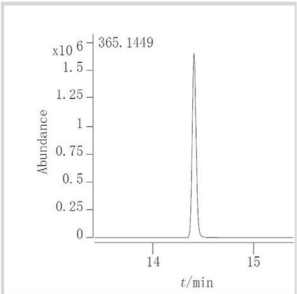

图 C.112 哒螨灵 EIC

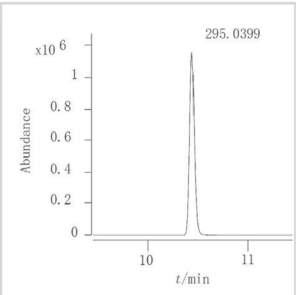

图 C.113 啶斑肟 EIC

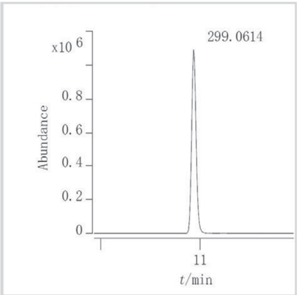

图 C.114 喹硫磷 EIC

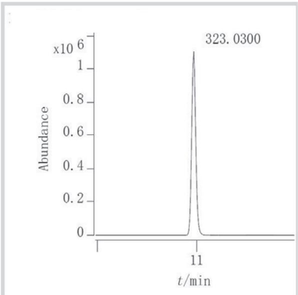

图 C.115 治螟磷 EIC

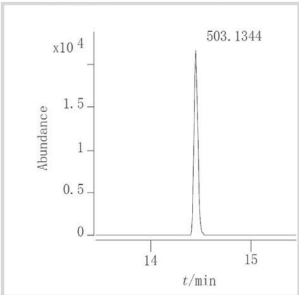

图 C.116 氟胺氰菊酯 EIC

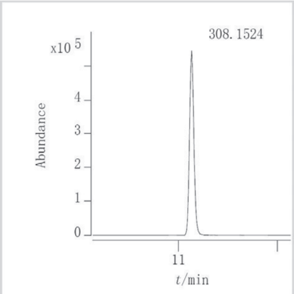

图 C.117 戊唑醇 EIC

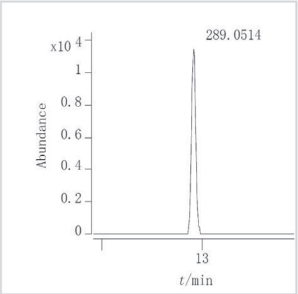

图 C.118 特丁硫磷 EIC

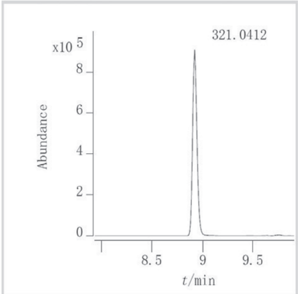

图 C.119 特丁硫磷砜 EIC

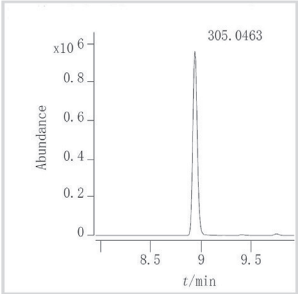

图 C.120 特丁硫磷亚砜 EIC

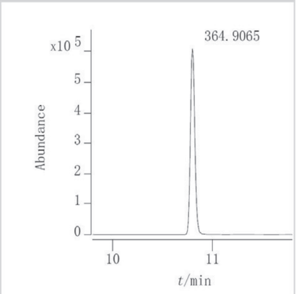

图 C.121 杀虫畏 EIC

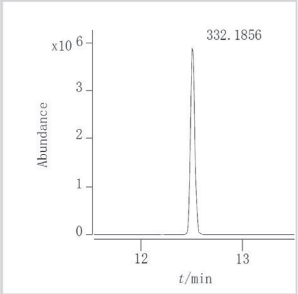

图 C.122 胺菊酯 EIC

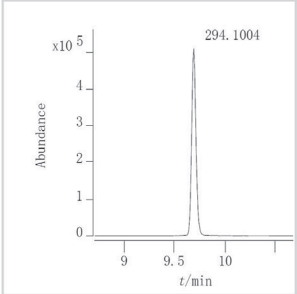

图 C.123 三唑酮 EIC

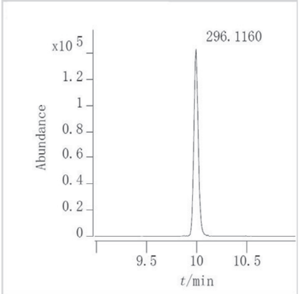

图 C.124 三唑醇 EIC

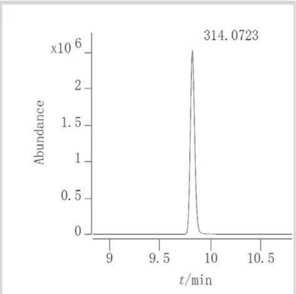

图 C.125 三唑磷 EIC

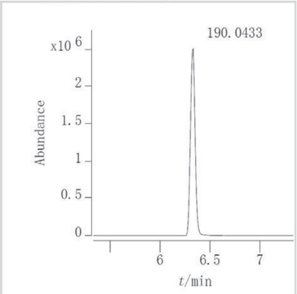

图 C.126 三环唑 EIC

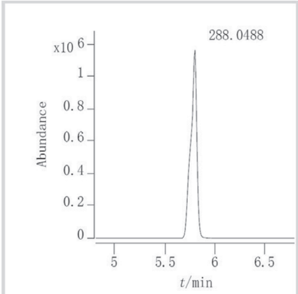

图 C.127 蚜灭磷 EIC

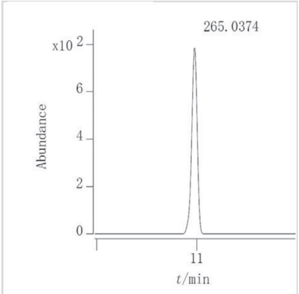

图 C.128 苯草醚 EIC

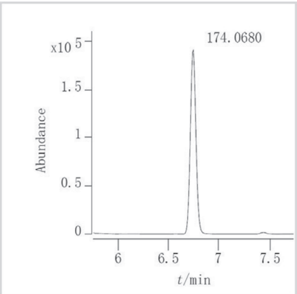

图 C.129 二丙烯草胺 EIC

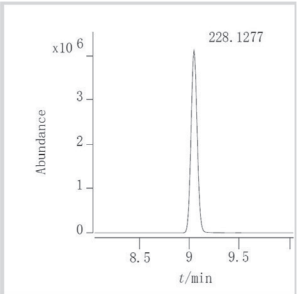

图 C.130 莠灭净 EIC

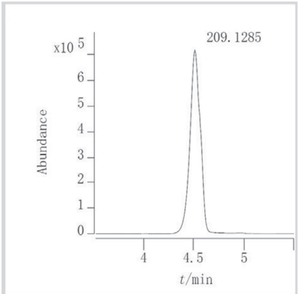

图 C.131 灭害威 EIC

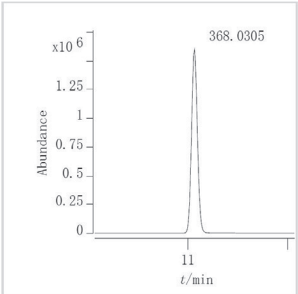

图 C.132 莎稗磷 EIC

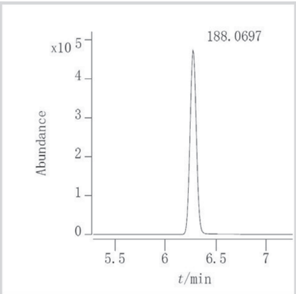

图 C.133 脱乙基莠去津 EIC

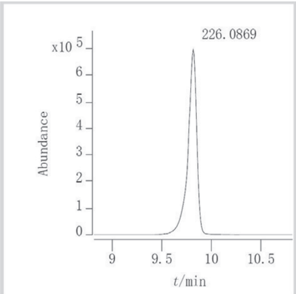

图 C.134 叠氮津 EIC

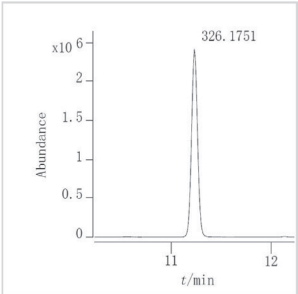

图 C.135 苯霜灵 EIC

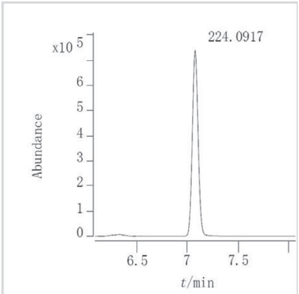

图 C.136 噁虫威 EIC

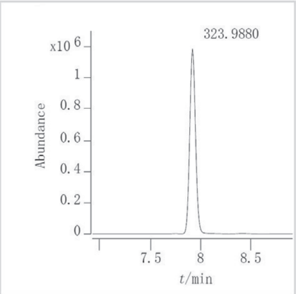

图 C.137 麦锈灵 EIC

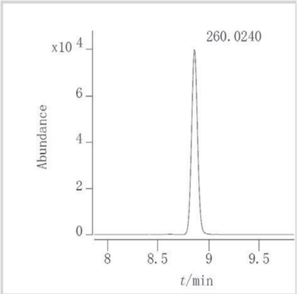

图 C.138 解草酮 EIC

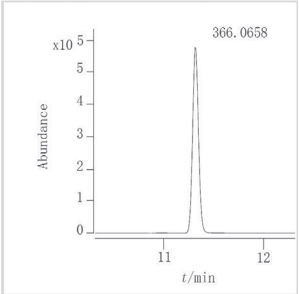

图 C.139 新燕灵 EIC

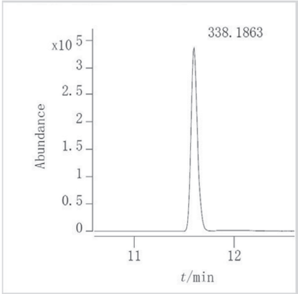

图 C.140 联苯三唑醇 EIC

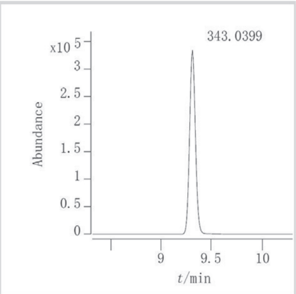

图 C.141 啶酰菌胺 EIC

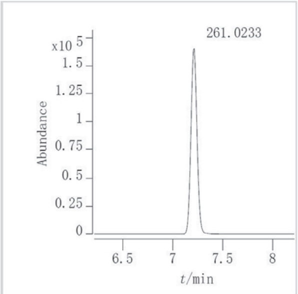

图 C.142 除草定 EIC

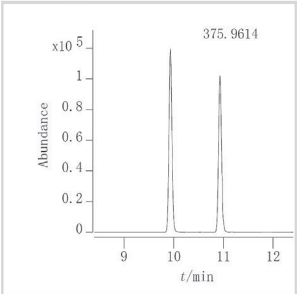

图 C.143 糠菌唑 EIC

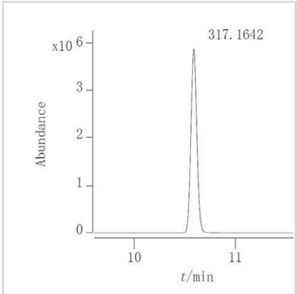

图 C.144 乙嘧酚磺酸酯 EIC

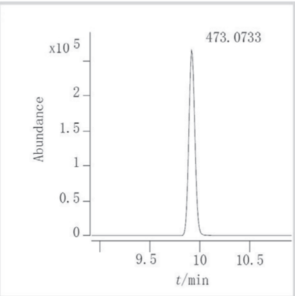

图 C.145 氟丙嘧草酯 EIC

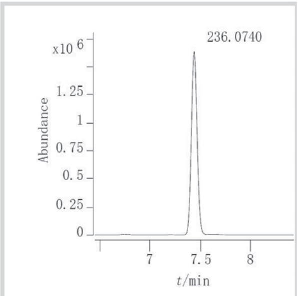

图 C.146 萎锈灵 EIC

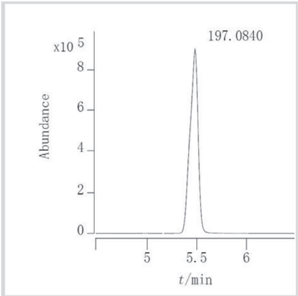

图 C.147 杀虫脒 EIC

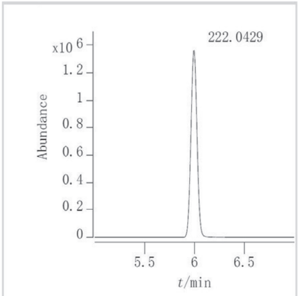

图 C.148 氯草敏 EIC

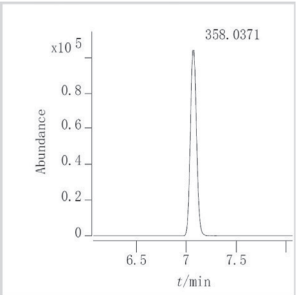

图 C.149 氯磺隆 EIC

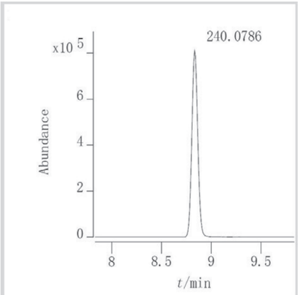

图 C.150 异□草酮 EIC

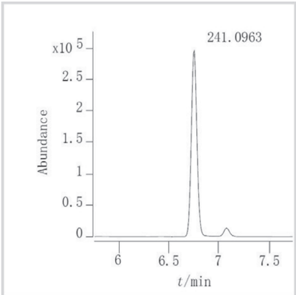

图 C.151 氰草津 EIC

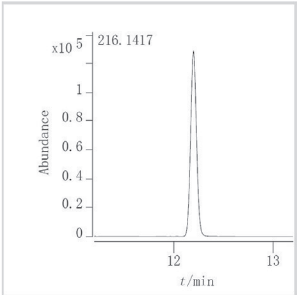

图 C.152 环草敌 EIC

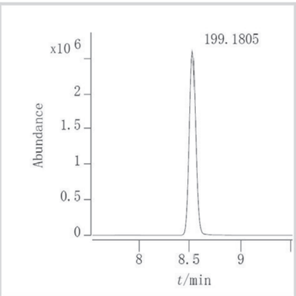

图 C.153 环莠隆 EIC

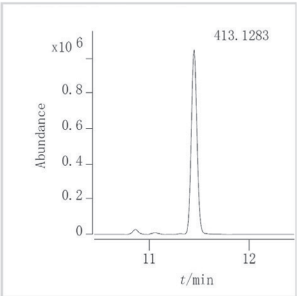

图 C.154 环氟菌胺 EIC

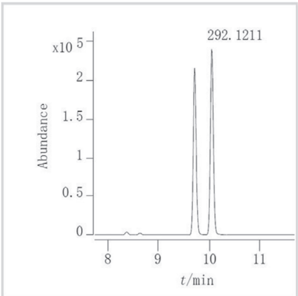

图 C.155 环丙唑醇 EIC

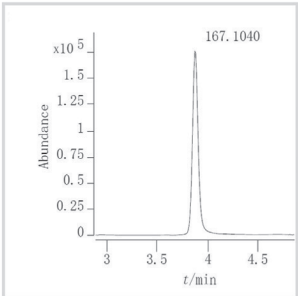

图 C.156 灭蝇胺 EIC

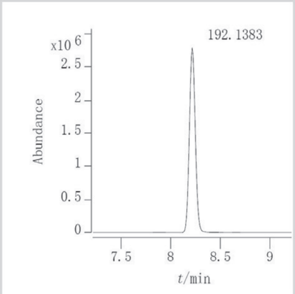

图 C.157 避蚊胺 EIC

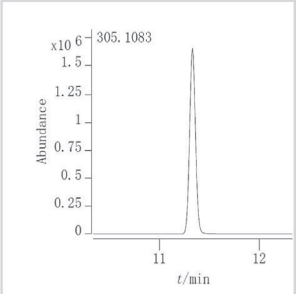

图 C.158 二嗪磷 EIC

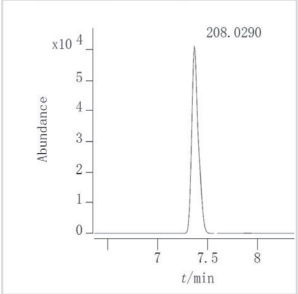

图 C.159 烯丙酰草胺 EIC

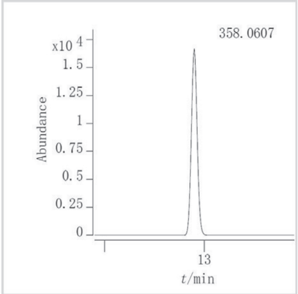

图 C.160 禾草灵 EIC

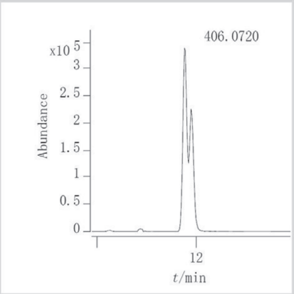

图 C.161 苯醚甲环唑 EIC

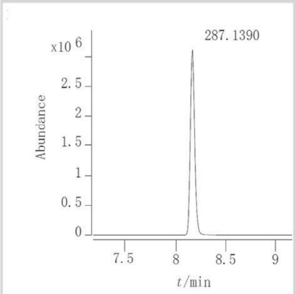

图 C.162 枯莠隆 EIC

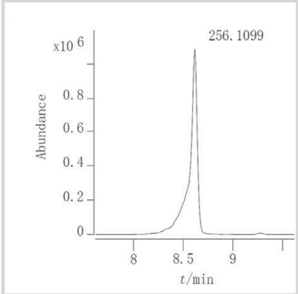

图 C.163 二甲草胺 EIC

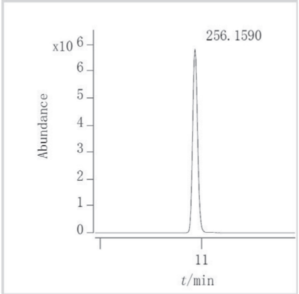

图 C.164 异戊乙净 EIC

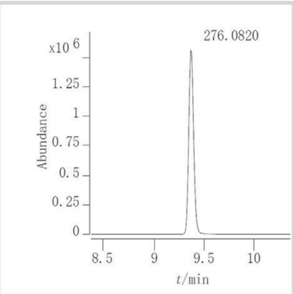

图 C.165 二甲酚噻草胺 EIC

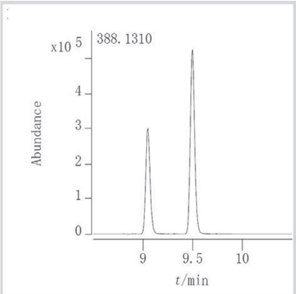

图 C.166 烯酰吗啉 EIC

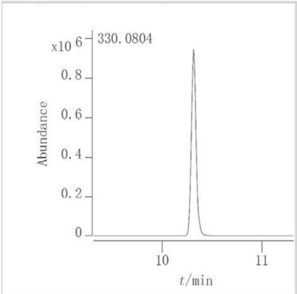

图 C.167 氟环唑 EIC

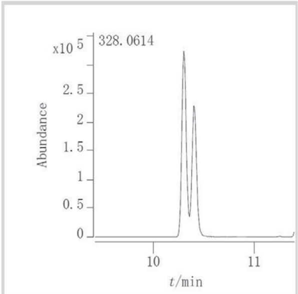

图 C.168 乙环唑 EIC

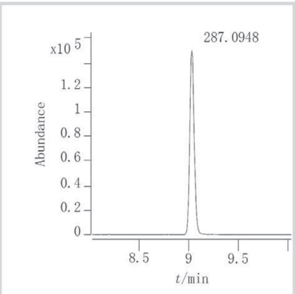

图 C.169 乙氧呋草黄 EIC

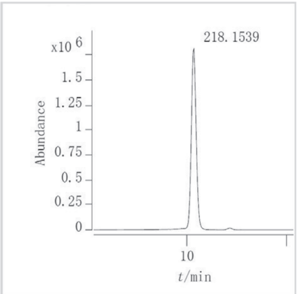

图 C.170 乙氧喹啉 EIC

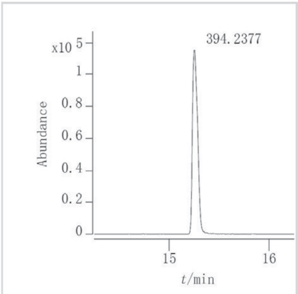

图 C.171 醚菊酯 EIC

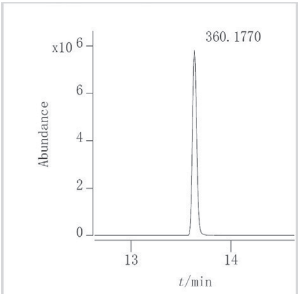

图 C.172 乙螨唑 EIC

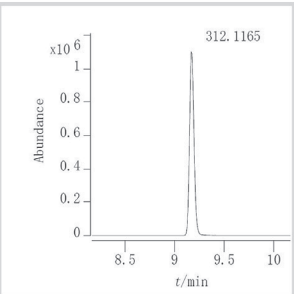

图 C.173 咪唑菌酮 EIC

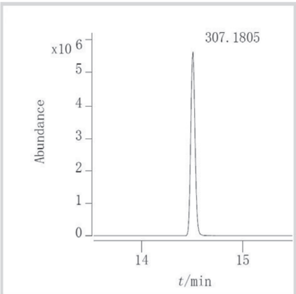

图 C.174 喹螨醚 EIC

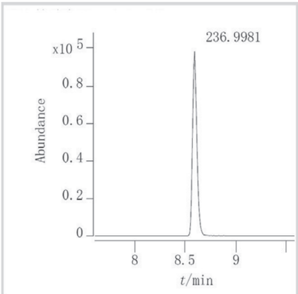

图 C.175 拌种咯 EIC

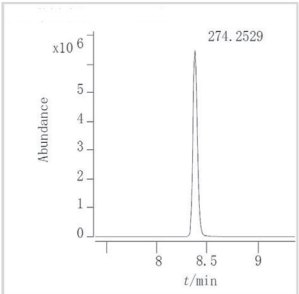

图 C.176 苯锈啶 EIC

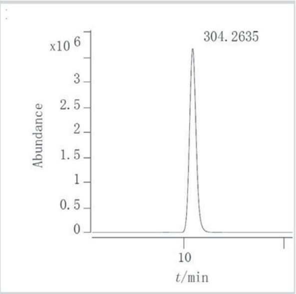

图 C.177 丁苯吗啉 EIC

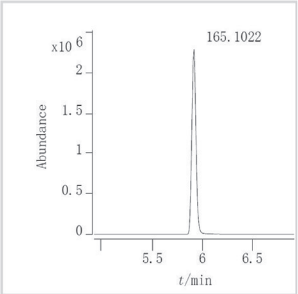

图 C.178 非草隆 EIC

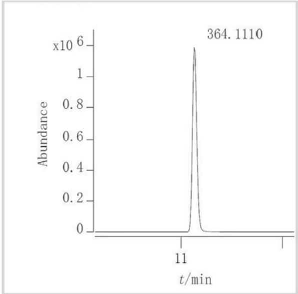

图 C.179 麦草氟异丙酯 EIC

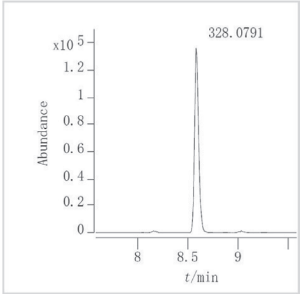

图 C.180 精吡氟禾草灵 EIC

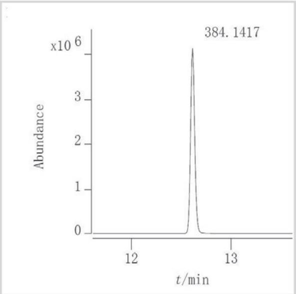

图 C.181 吡氟禾草灵 EIC

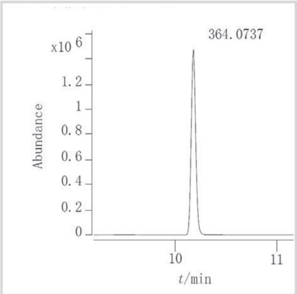

图 C.182 氟噻草胺 EIC

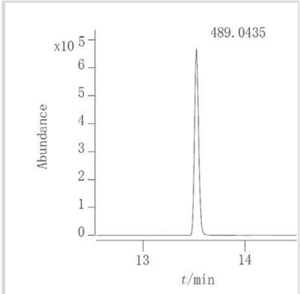

图 C.183 氟虫脲 EIC

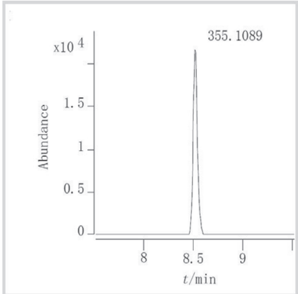

图 C.184 丙炔氟草胺 EIC

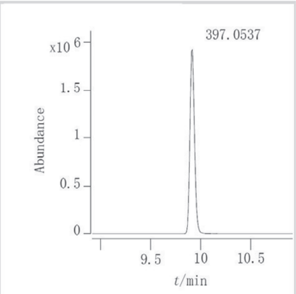

图 C.185 氟吡菌酰胺 EIC

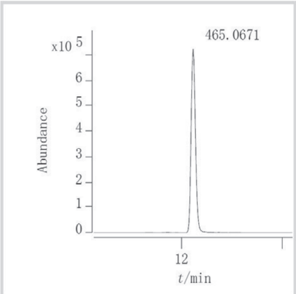

图 C.186 乙羧氟草醚 EIC

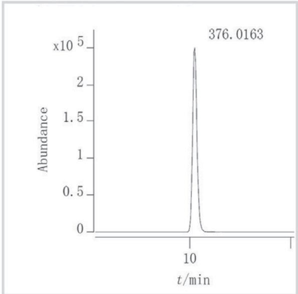

图 C.187 氟喹唑 EIC

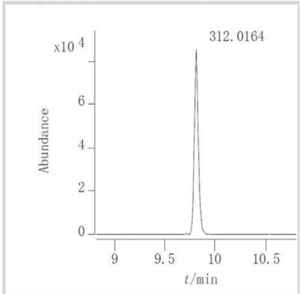

图 C.188 氟咯草酮 EIC

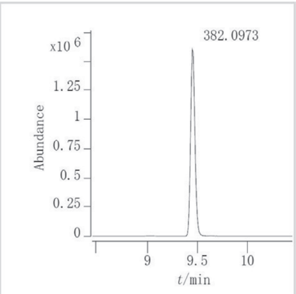

图 C.189 氟唑菌酰胺 EIC

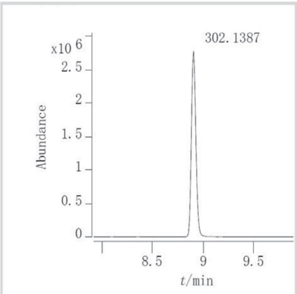

图 C.190 呋霜灵 EIC

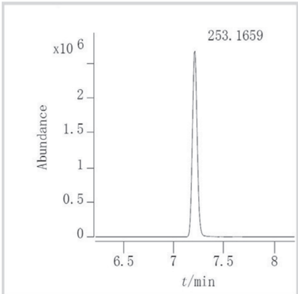

图 C.191 环嗪酮 EIC

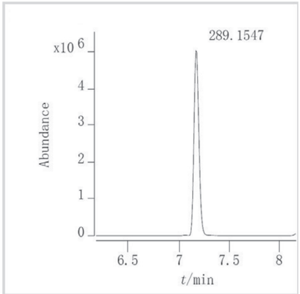

图 C.192 咪草酯 EIC

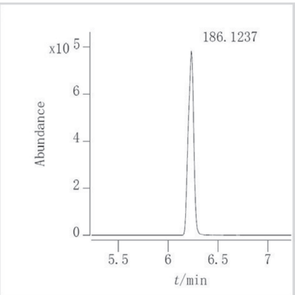

图 C.193 丁咪酰胺 EIC

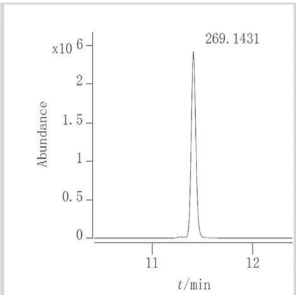

图 C.194 丁嗪草酮 EIC

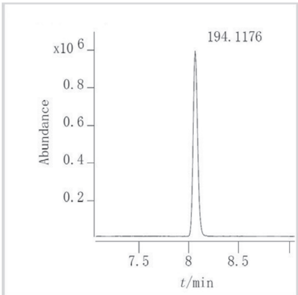

图 C.195 异丙威 EIC

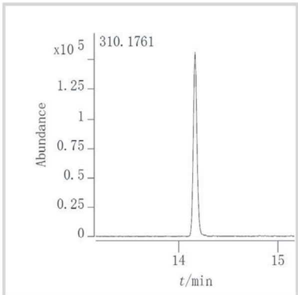

图 C.196 异乐灵 EIC

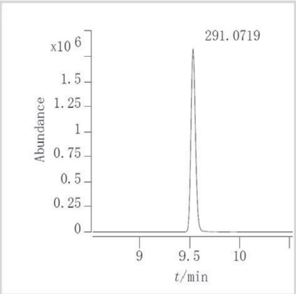

图 C. 197 稻瘟灵 EIC

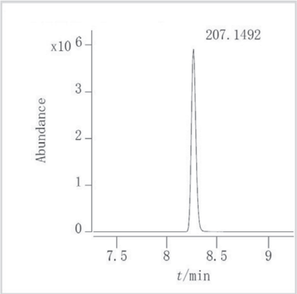

图 C. 198 异丙隆 EIC

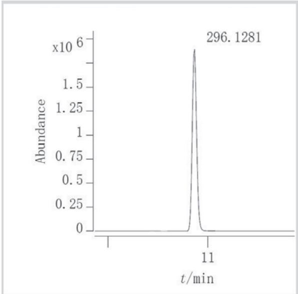

图 C. 199 双苯噁唑酸乙酯 EIC

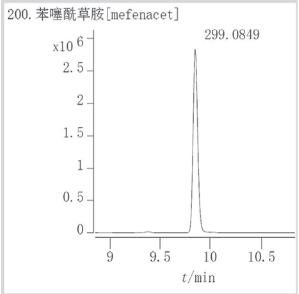

图 C. 200 苯噻酰草胺 EIC

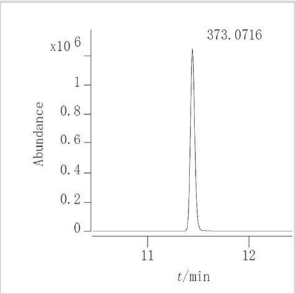

图 C. 201 吡唑解草酯 EIC

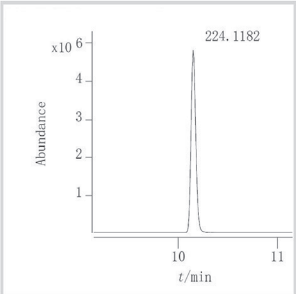

图 C. 202 嘧菌胺 EIC

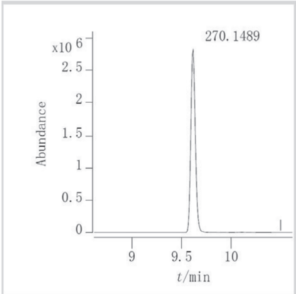

图 C. 203 灭锈胺 EIC

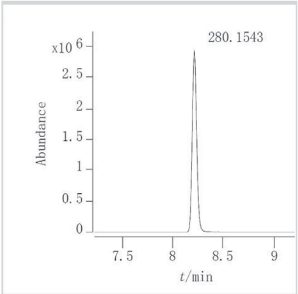

图 C. 204 甲霜灵 EIC

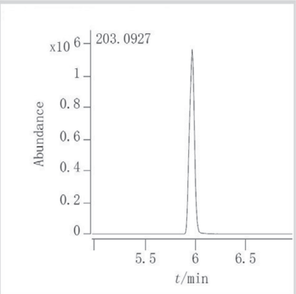

图 C. 205 苯嗪草酮 EIC

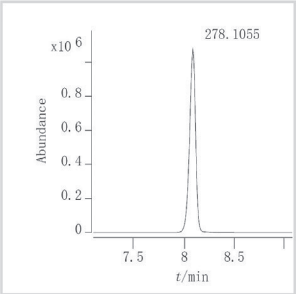

图 C. 206 吡唑草胺 EIC

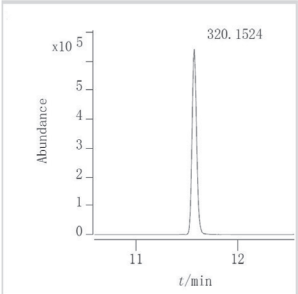

图 C. 207 叶菌唑 EIC

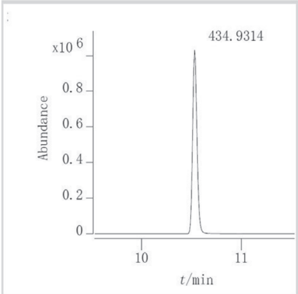

图 C. 208 氟虫腈 EIC

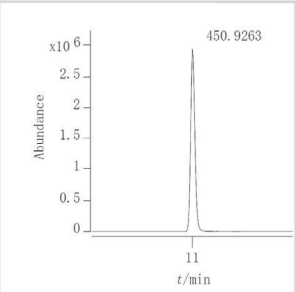

图 C. 209 氟虫腈砜 EIC

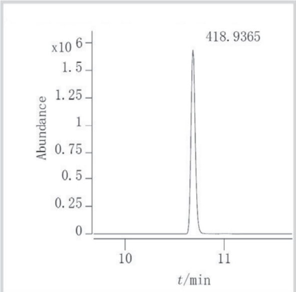

图 C. 210 氟虫腈亚砜 EIC

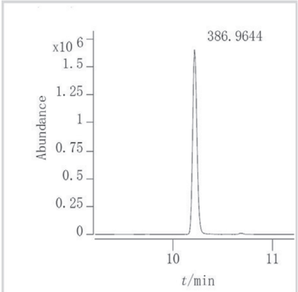

图 C. 211 氟甲腈 EIC

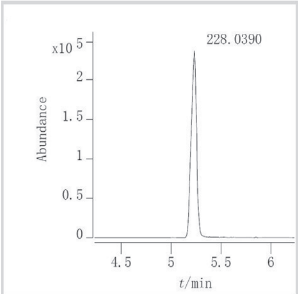

图 C. 212 氟啶虫酰胺 EIC

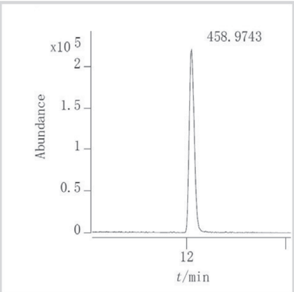

图 C. 213 氟铃脲 EIC

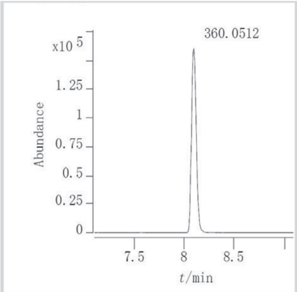

图 C. 214 异□唑草酮 EIC

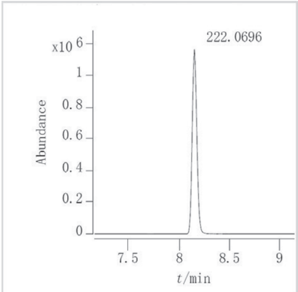

图 C. 215 甲基苯噻隆 EIC

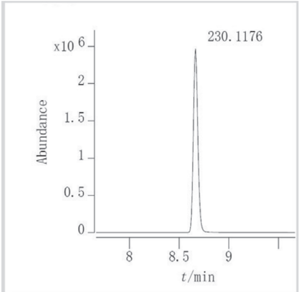

图 C. 216 呋菌胺 EIC

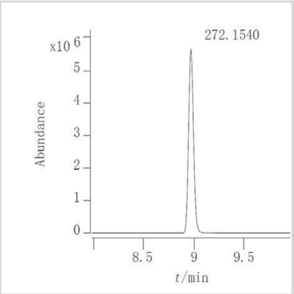

图 C.217 甲氧丙净 EIC

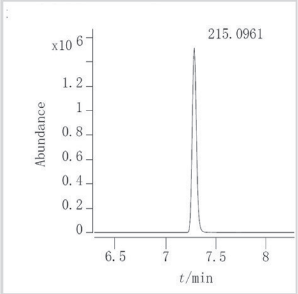

图 C.218 嗪草酮 EIC

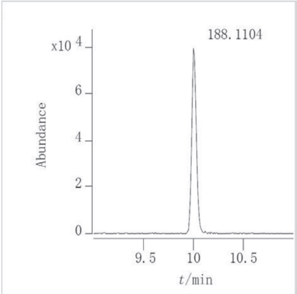

图 C.219 禾草敌 EIC

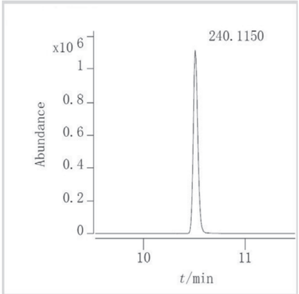

图 C.220 庚酰草胺 EIC

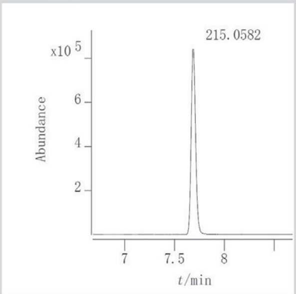

图 C.221 绿谷隆 EIC

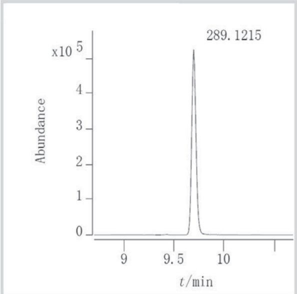

图 C.222 腈菌唑 EIC

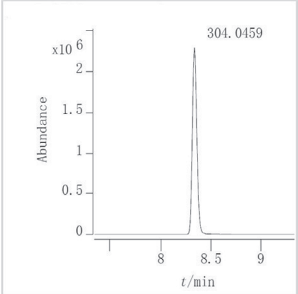

图 C.223 氟草敏 EIC

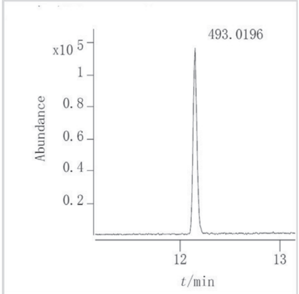

图 C.224 氟酰脲 EIC

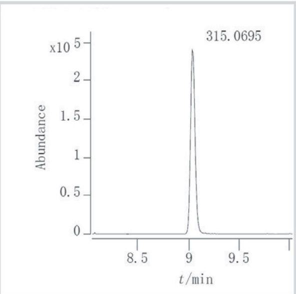

图 C.225 氟苯嘧啶醇 EIC

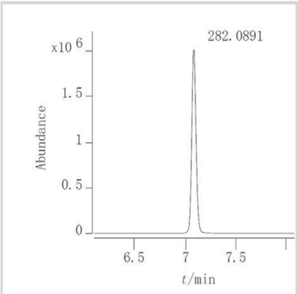

图 C.226 呋酰胺 EIC

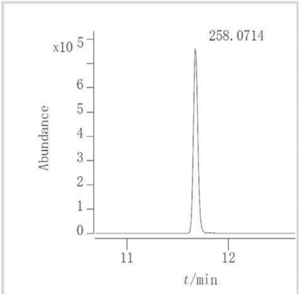

图 C.227 坪草丹 EIC

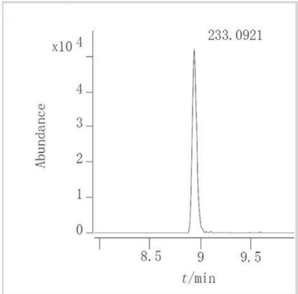

图 C.228 解草腈 EIC

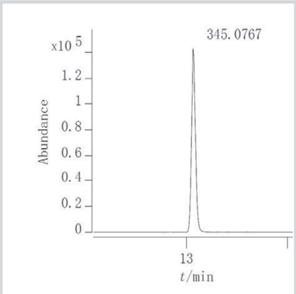

图 C.229噁草酮 EIC

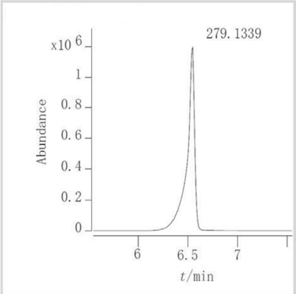

图 C.230噁霜灵 EIC

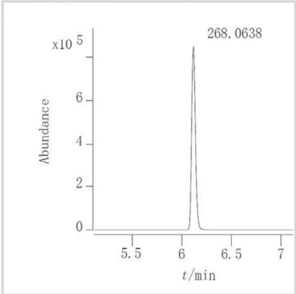

图 C.231 氧化萎锈灵 EIC

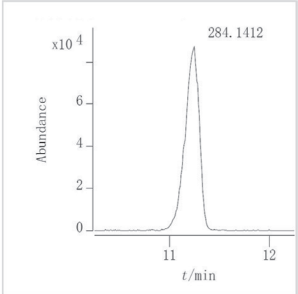

图 C.232 异丙草胺 EIC

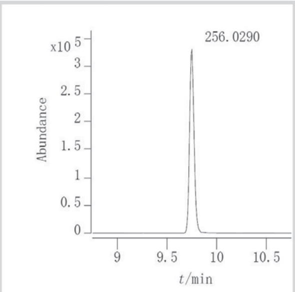

图 C.233 炔苯酰草胺 EIC

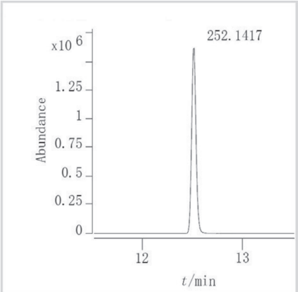

图 C.234 苄草丹 EIC

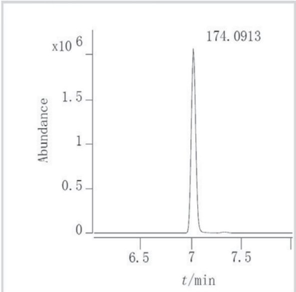

图 C.235 咯喹酮 EIC

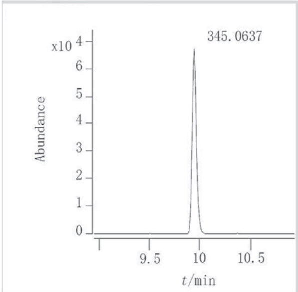

图 C.236 喹禾灵 EIC

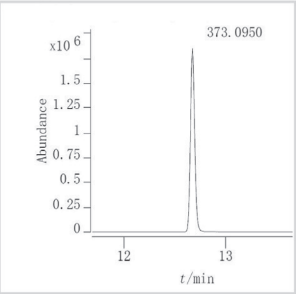

图 C.237 喹禾灵乙酯 EIC

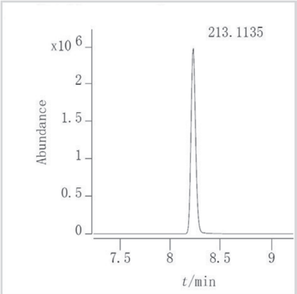

图 C.238 吡咪唑 EIC

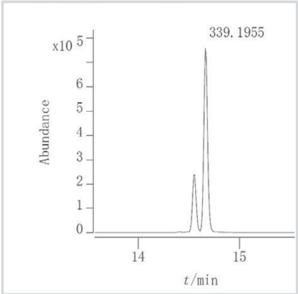

图 C.239 苄呋菊酯 EIC

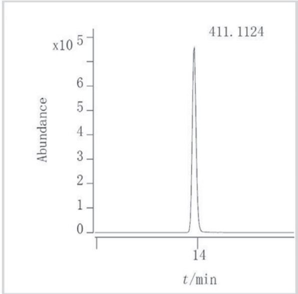

图 C.240 螺螨酯 EIC

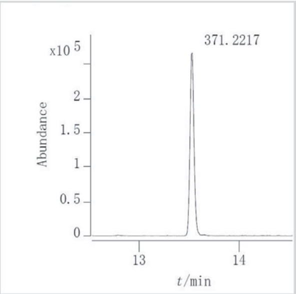

图 C.241 螺甲螨酯 EIC

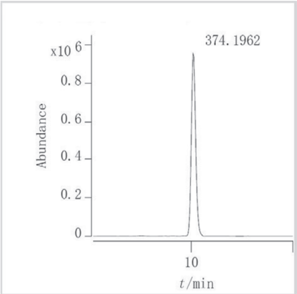

图 C.242 螺虫乙酯 EIC

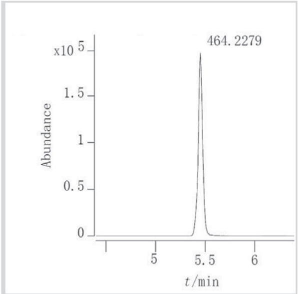

图 C.243 螺虫乙酯-烯醇-葡萄糖苷 EIC

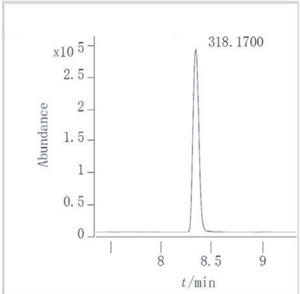

图 C.244 螺虫乙酯-酮基-羟基 EIC

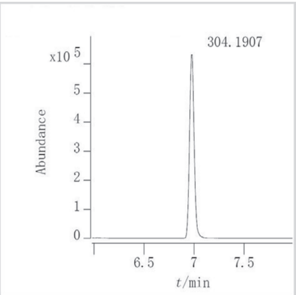

图 C.245 螺虫乙酯-单-羟基 EIC

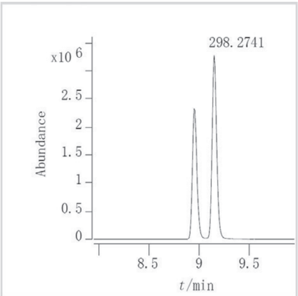

图 C.246 螺环菌胺 EIC

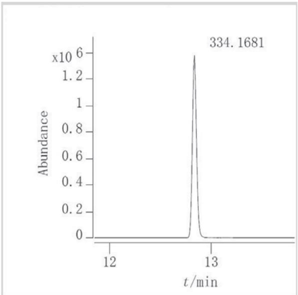

图 C.247 吡螨胺 EIC

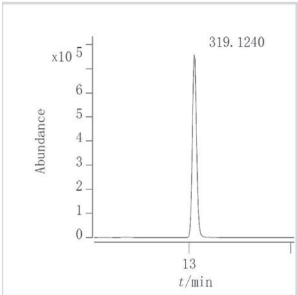

图 C.248 丁基嘧啶磷 EIC

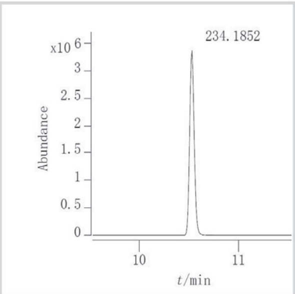

图 C.249 牧草胺 EIC

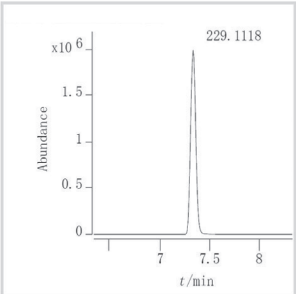

图 C.250 丁噻隆 EIC

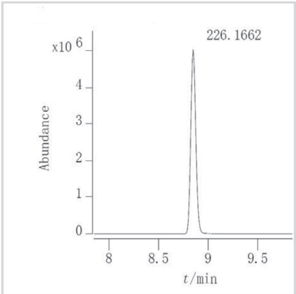

图 C.251 特丁通 EIC

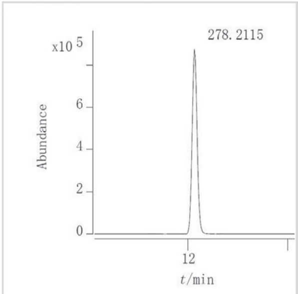

图 C.252 特草灵 EIC

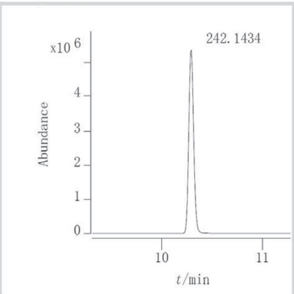

图 C.253 特丁草净 EIC

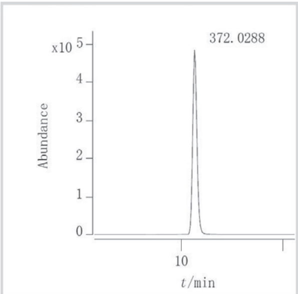

图 C.254 四氟醚唑 EIC

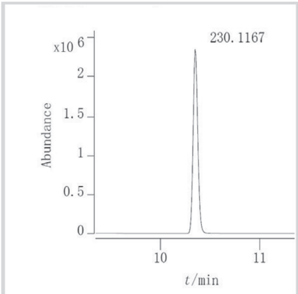

图 C.255 草达津 EIC

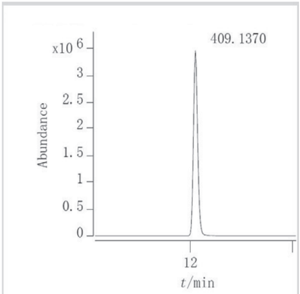

图 C.256 肟菌酯 EIC

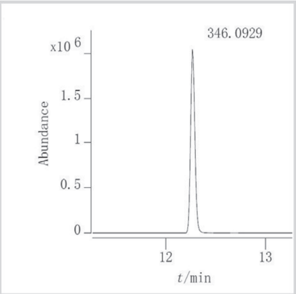

图 C.257 氟菌唑 EIC

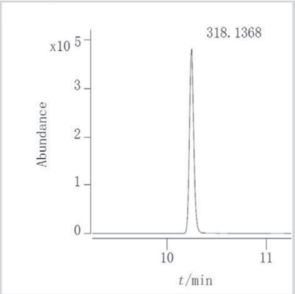

图 C.258 灭菌唑 EIC

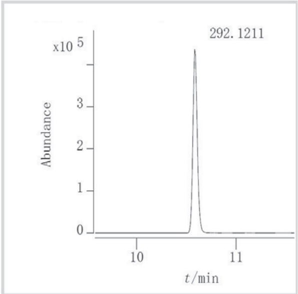

图 C.259 烯效唑 EIC

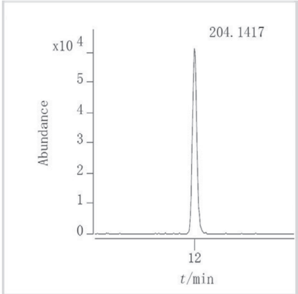

图 C.260 灭草敌 EIC

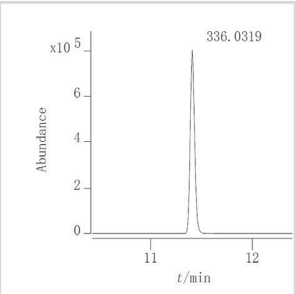

图 C.261 苯酰菌胺 EIC

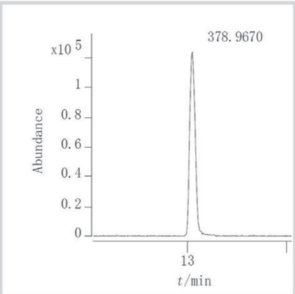

图 C.262 氟苯脲 EIC

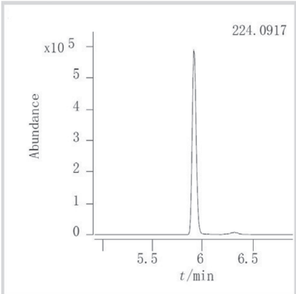

图 C.263 二氧威 EIC

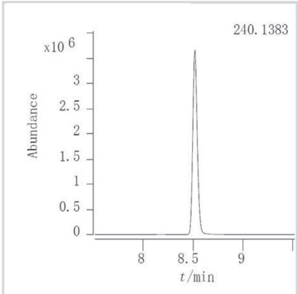

图 C.264 双苯酰草胺 EIC

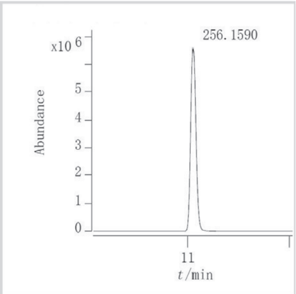

图 C.265 异丙净 EIC

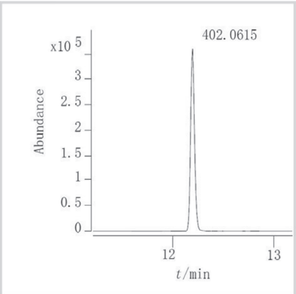

图 C.266 氟硫草定 EIC

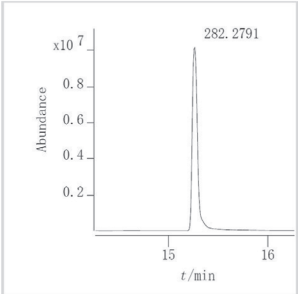

图 C.267 十二环吗啉 EIC

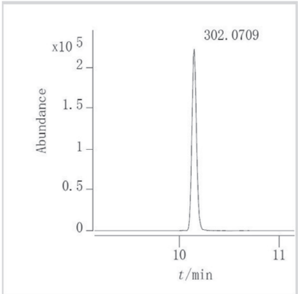

图 C.268 环酰菌胺 EIC

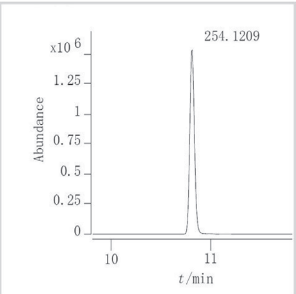

图 C.269 苯硫威 EIC

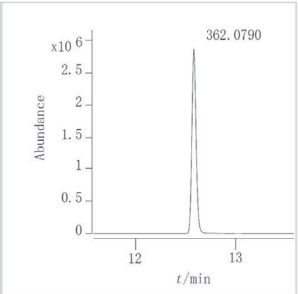

图 C.270 噁唑禾草灵 EIC

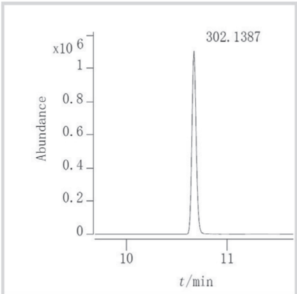

图 C.271 苯氧威 EIC

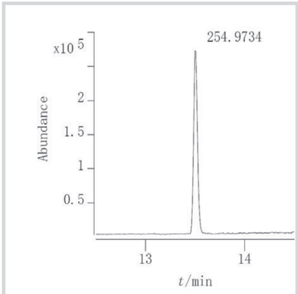

图 C.272 氯氟吡氧乙酸 EIC

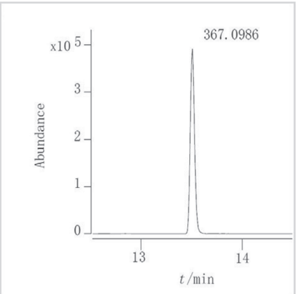

图 C.273 氯氟吡氧乙酸异辛酯 EIC

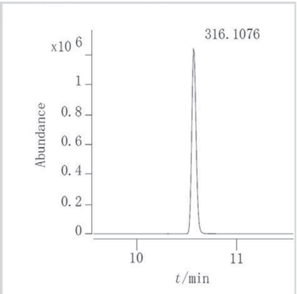

图 C.274 氟硅唑 EIC

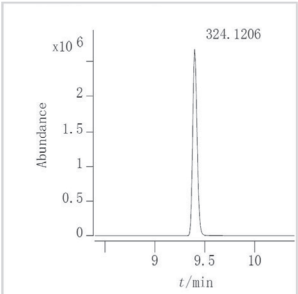

图 C.275 氟酰胺 EIC

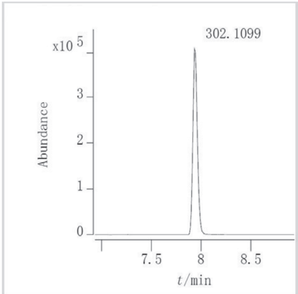

图 C.276 粉唑醇 EIC

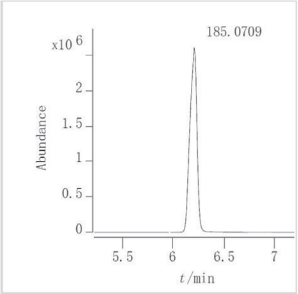

图 C.277 麦穗宁 EIC

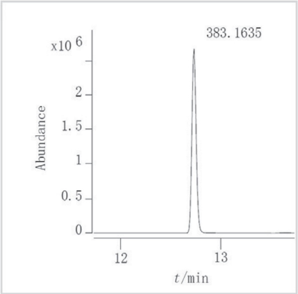

图 C.278 呋线威 EIC

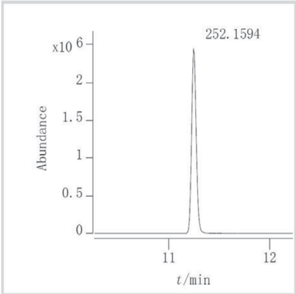

图 C.279 拌种胺 EIC

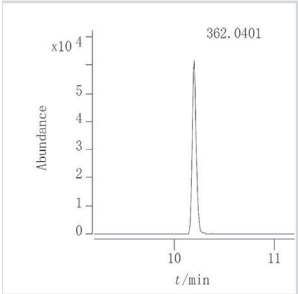

图 C.280 氟吡禾灵 EIC

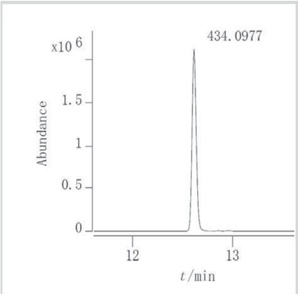

图 C.281 高效氟吡甲禾灵 EIC

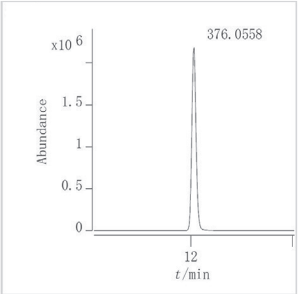

图 C.282 氟吡甲禾灵 EIC

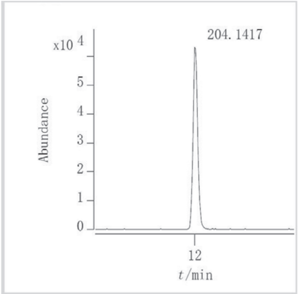

图 C.283 克草猛 EIC

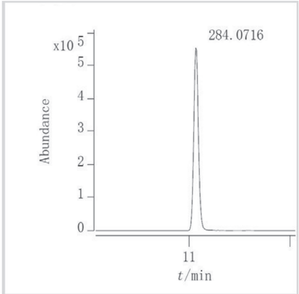

图 C.284 戊菌唑 EIC

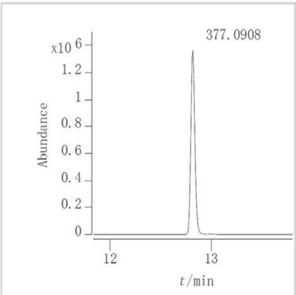

图 C.285 氟吡草胺 EIC

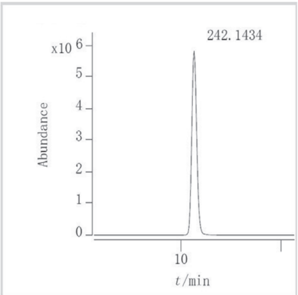

图 C.286 扑草净 EIC

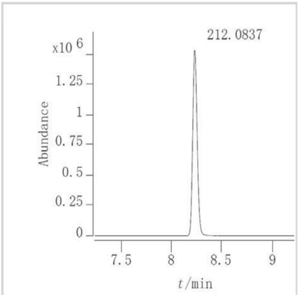

图 C.287 毒草胺 EIC

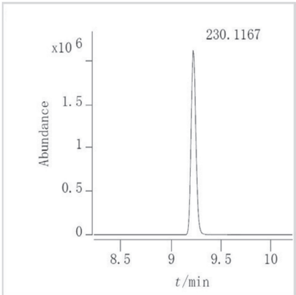

图 C.288 扑灭津 EIC

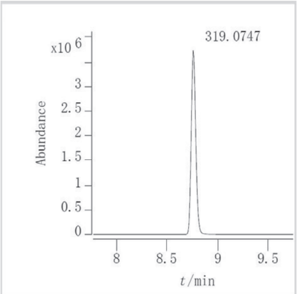

图 C.289 环酯草醚 EIC

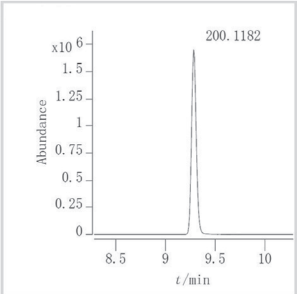

图 C.290 嘧霉胺 EIC

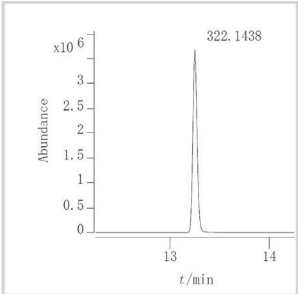

图 C.291 吡丙醚 EIC

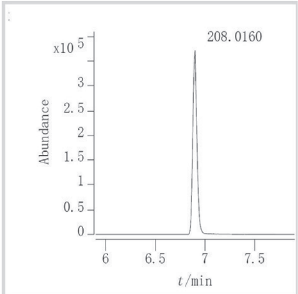

图 C.292 灭藻醌 EIC

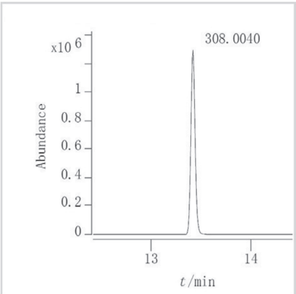

图 C.293 喹氧灵 EIC

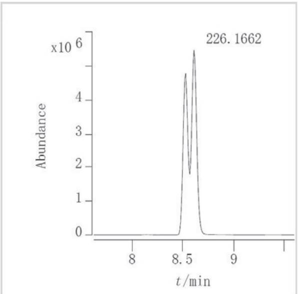

图 C.294 仲丁通 EIC

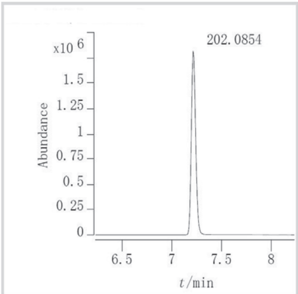

图 C.295 西玛津 EIC

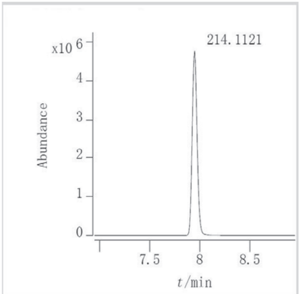

图 C.296 西草净 EIC

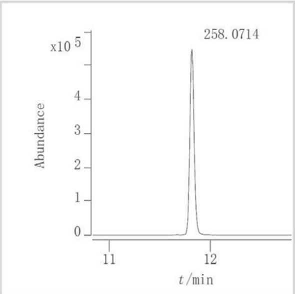

图 C.297 禾草丹 EIC

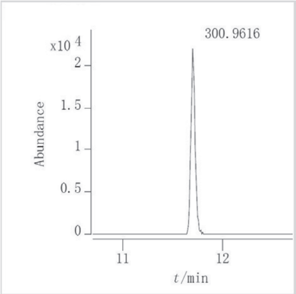

图 C.298 甲基立枯磷 EIC

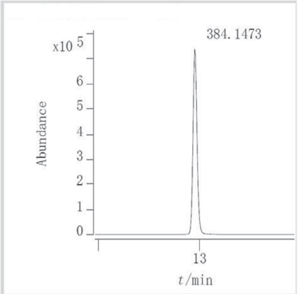

图 C.299 唑虫酰胺 EIC

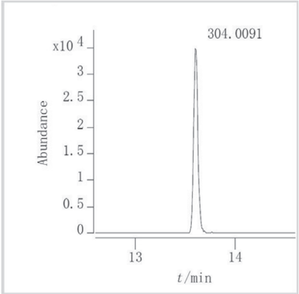

图 C.300 野麦畏 EIC

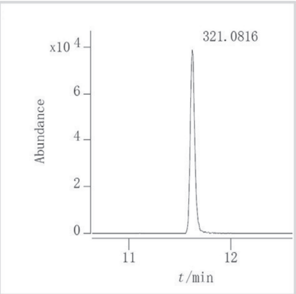

图 C.301 敌乐胺 EIC

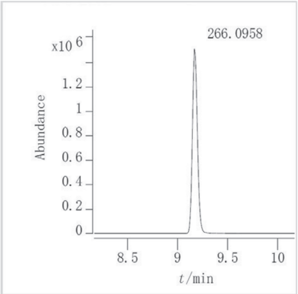

图 C.302 丙硫多菌灵 EIC

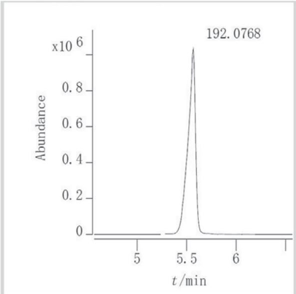

图 C.303 多菌灵 EIC

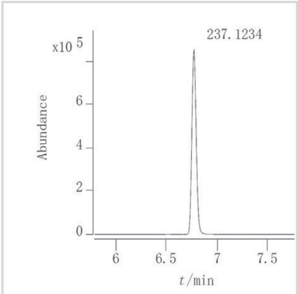

图 C.304 双酰草胺 EIC

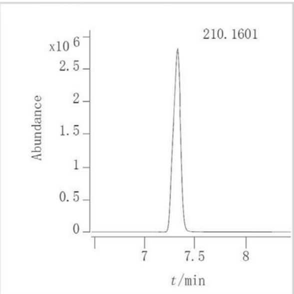

图 C.305 甲菌定 EIC

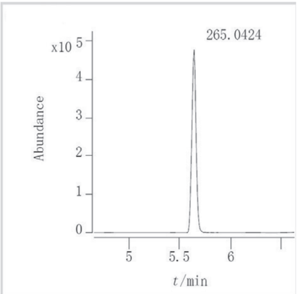

图 C.306 磺噻隆 EIC

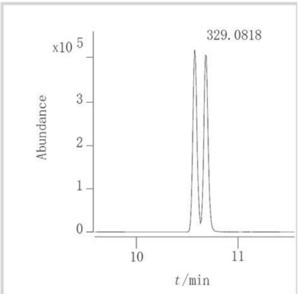

图 C.307 稻瘟酰胺 EIC

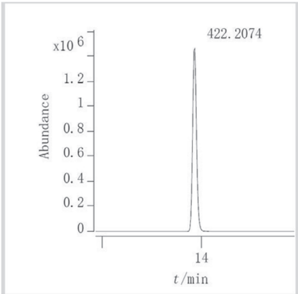

图 C.308 唑螨酯 EIC

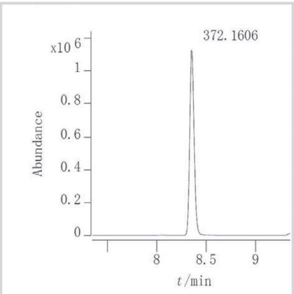

图 C.309 氟吗啉 EIC

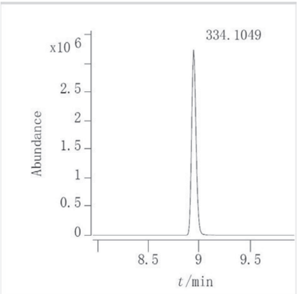

图 C.310 呋草酮 EIC

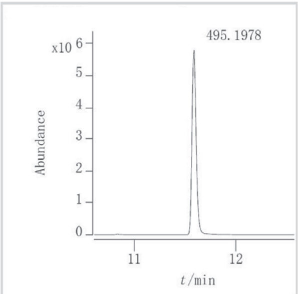

图 C.311 氟蚁腙 EIC

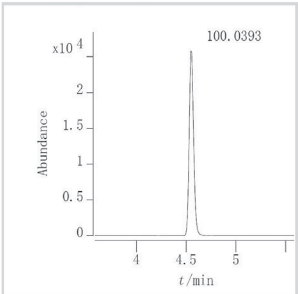

图 C.312 噁霉灵 EIC

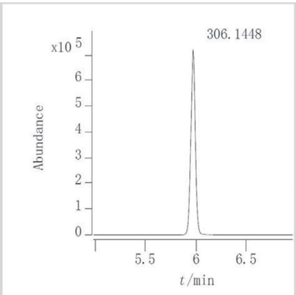

图 C.313 甲氧咪草烟 EIC

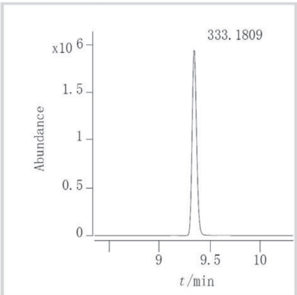

图 C.314 异噁酰草胺 EIC

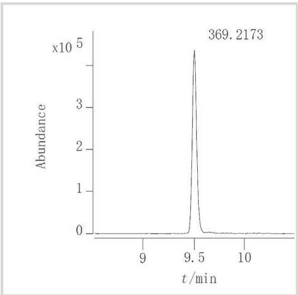

图 C.315 甲氧虫酰肼 EIC

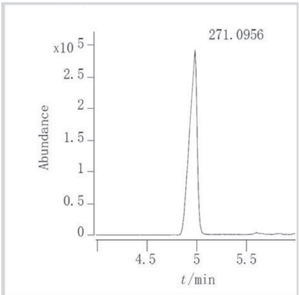

图 C.316 烯啶虫胺 EIC

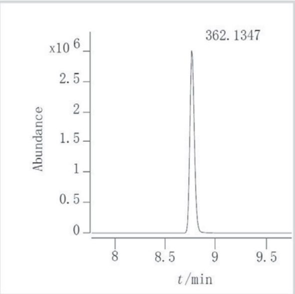

图 C.317 嘧草醚 EIC

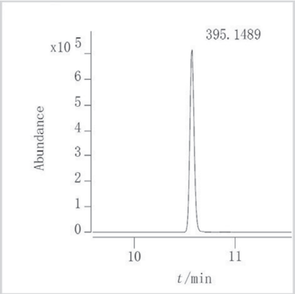

图 C.318 鱼藤酮 EIC

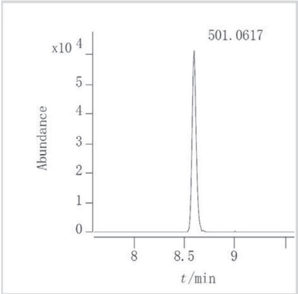

图 C.319 苯嘧磺草胺 EIC

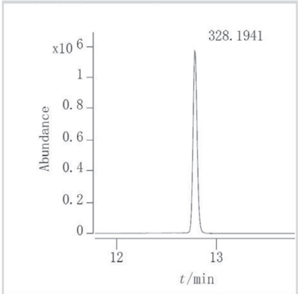

图 C.320 烯禾啶 EIC

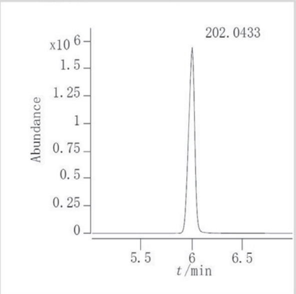

图 C.321 噻菌灵 EIC

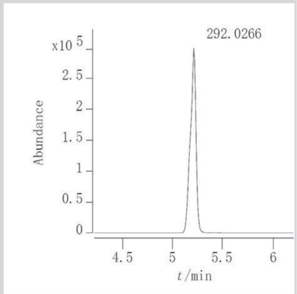

图 C.322 噻虫嗪 EIC

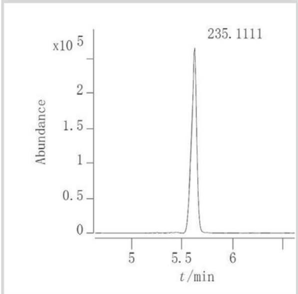

图 C.323 久效威亚砜 EIC

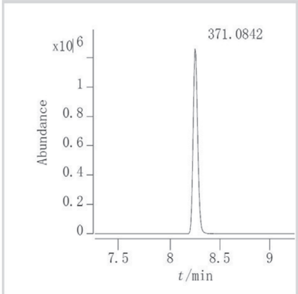

图 C.324 硫菌灵 EIC

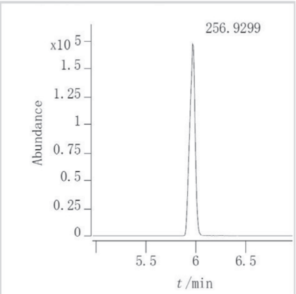

图 C.325 敌百虫 EIC

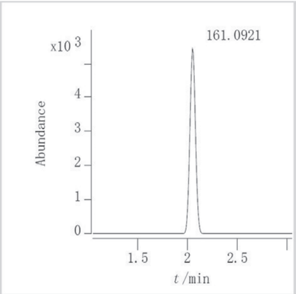

图 C.326 丁酰肼 EIC

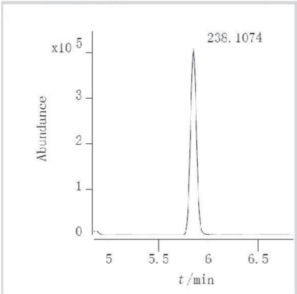

图 C.327 3-羟基克百威 EIC

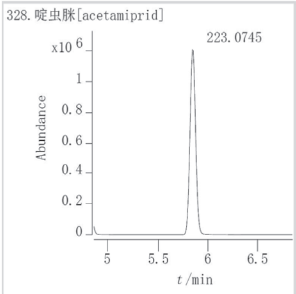

图 C.328 啶虫脒 EIC

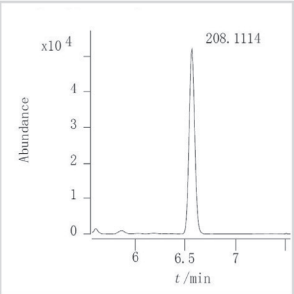

图 C.329 涕灭威 EIC

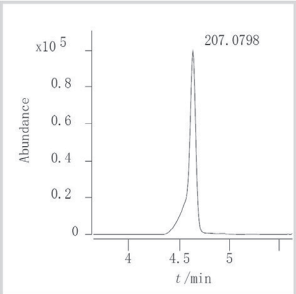

图 C.330 涕灭威亚砜 EIC

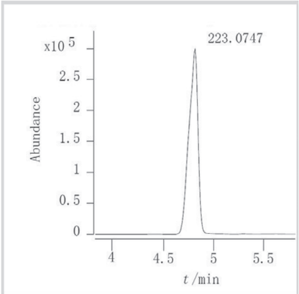

图 C.331 涕灭威砜 EIC

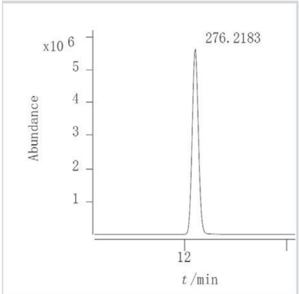

图 C.332 唑嘧菌胺 EIC

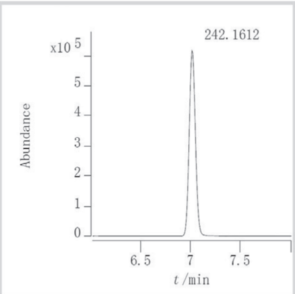

图 C.333 氨唑草酮 EIC

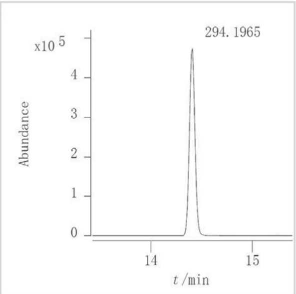

图 C.334 双甲脒 EIC

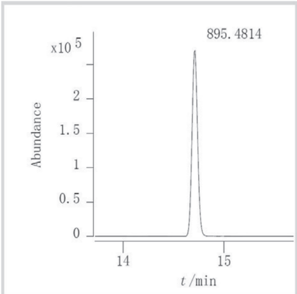

图 C.335 阿维菌素 B1a EIC

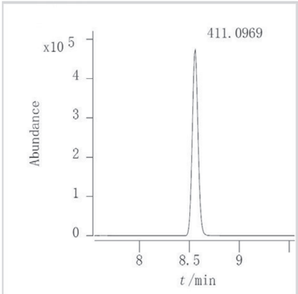

图 C.336 苄嘧磺隆 EIC

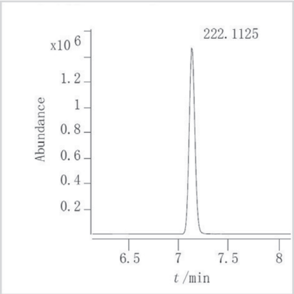

图 C.337 克百威 EIC

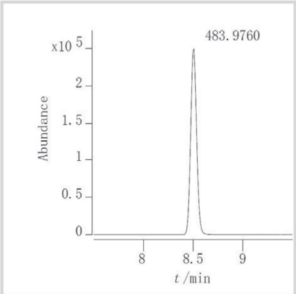

图 C.338 氯虫苯甲酰胺 EIC

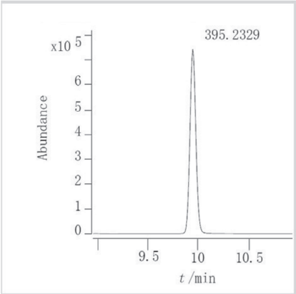

图 C.339 环虫酰肼 EIC

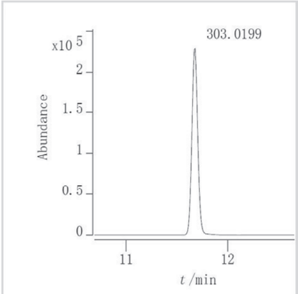

图 C.340 四螨嗪 EIC

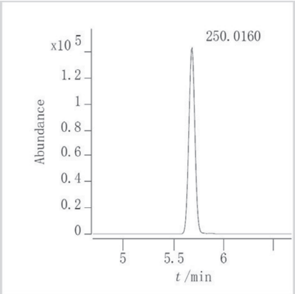

图 C.341 噻虫胺 EIC

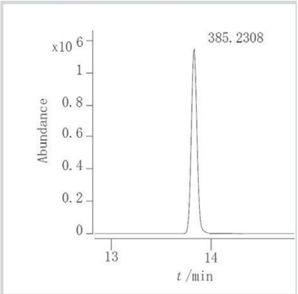

图 C.342 丁醚脲 EIC

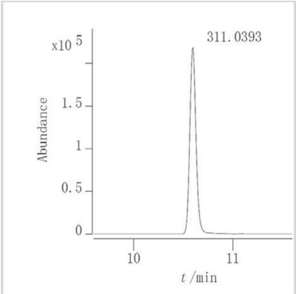

图 C.343 除虫脲 EIC

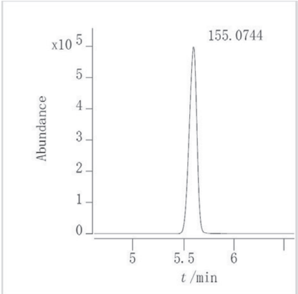

图 C.344 甲氟磷 EIC

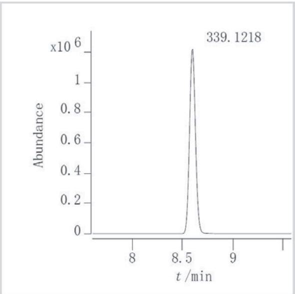

图 C.345 噁唑隆 EIC

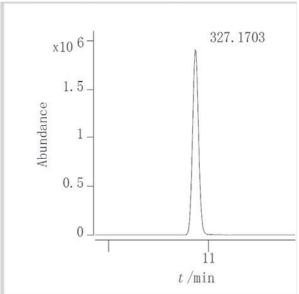

图 C.346 醚菌胺 EIC

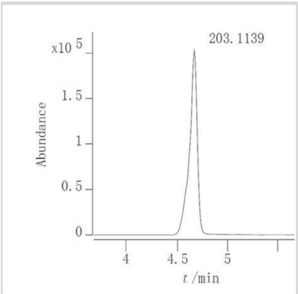

图 C.347 呋虫胺 EIC

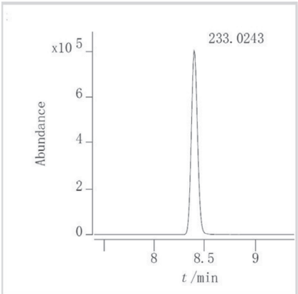

图 C.348 敌草隆 EIC

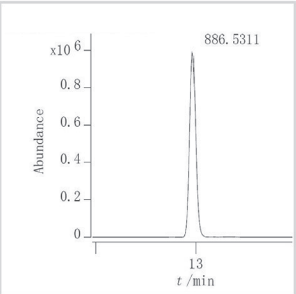

图 C.349 甲氨基阿维菌素苯甲酸盐 B1a EIC

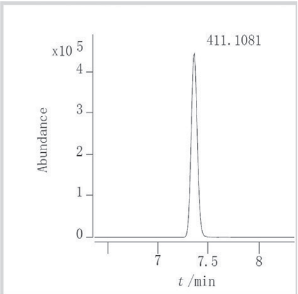

图 C.350 甲基胺苯磺隆 EIC

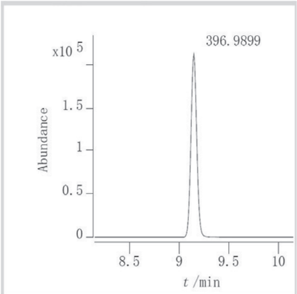

图 C.351 乙虫清 EIC

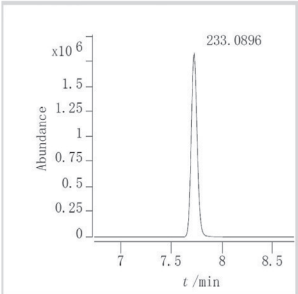

图 C.352 伏草隆 EIC

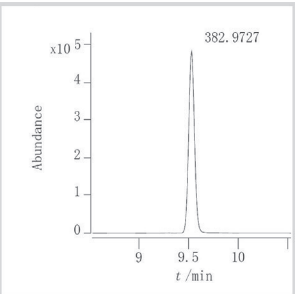

图 C.353 氟吡菌胺 EIC

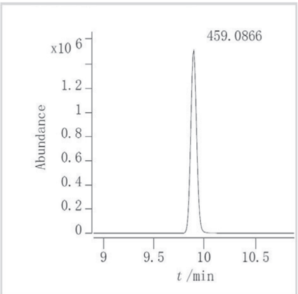

图 C.354 氟嘧菌酯 EIC

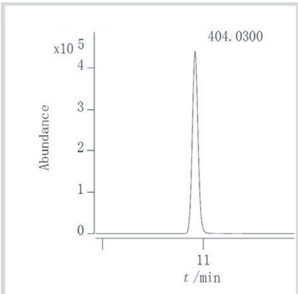

图 C.355 嗪草酸甲酯 EIC

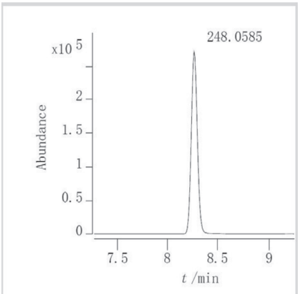

图 C.356 氯吡脲 EIC

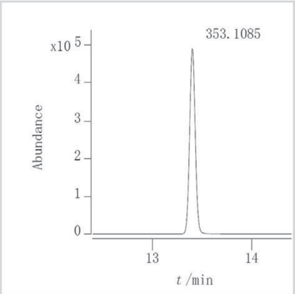

图 C.357 噻螨酮 EIC

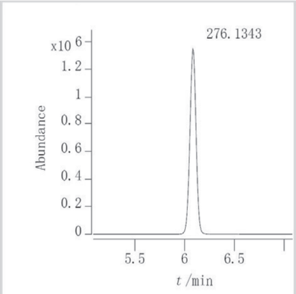

图 C.358 甲咪唑烟酸 EIC

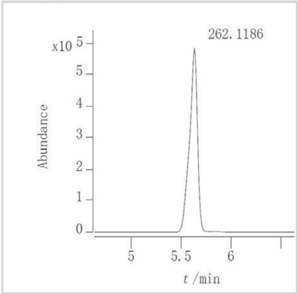

图 C.359 咪唑烟酸 EIC

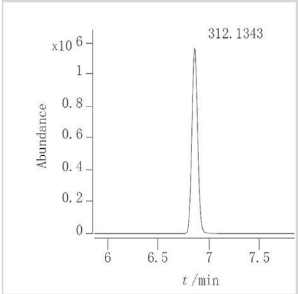

图 C.360 咪唑喹啉酸 EIC

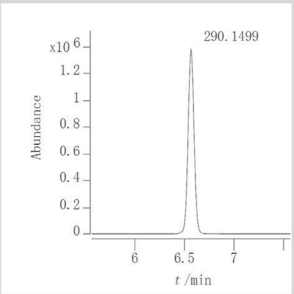

图 C.361 咪唑乙烟酸 EIC

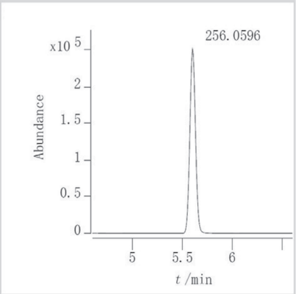

图 C.362 吡虫啉 EIC

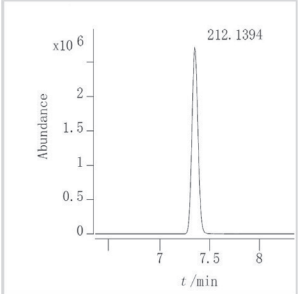

图 C.363 异唑隆 EIC

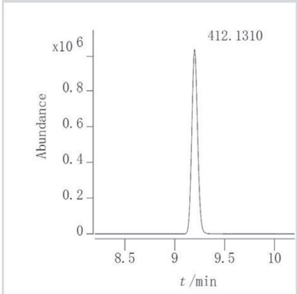

图 C.364 双炔酰菌胺 EIC

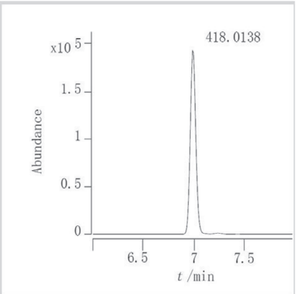

图 C.365 磺草胺唑 EIC

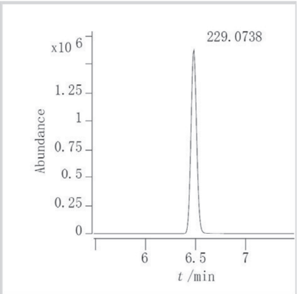

图 C.366 甲氧隆 EIC

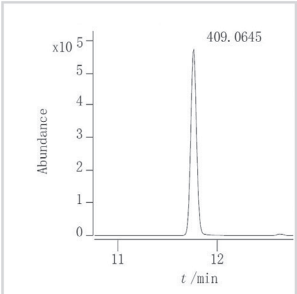

图 C.367 苯菌酮 EIC

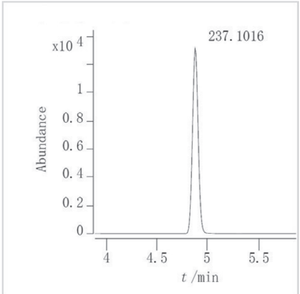

图 C.368 杀线威 EIC

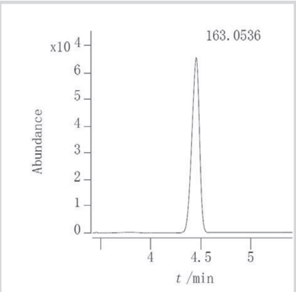

图 C.369 杀线威肟 EIC

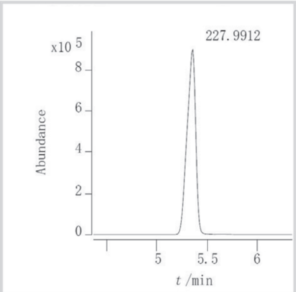

图 C.370 甲基硫环磷 EIC

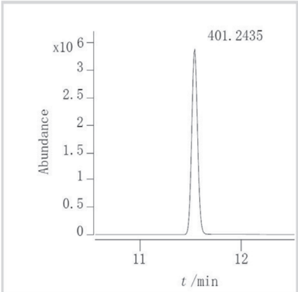

图 C.371 唑啉草酯 EIC

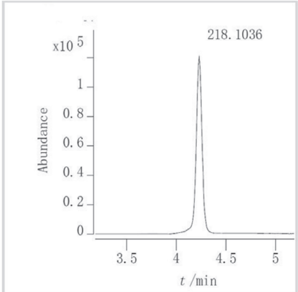

图 C.372 吡蚜酮 EIC

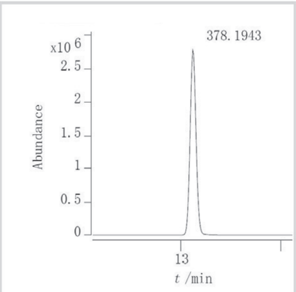

图 C.373 嘧螨醚 EIC

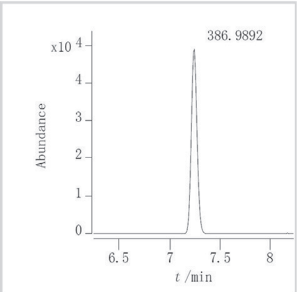

图 C.374 甲磺草胺 EIC

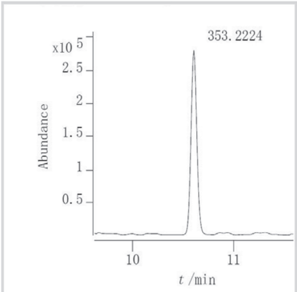

图 C.375 虫酰肼 EIC

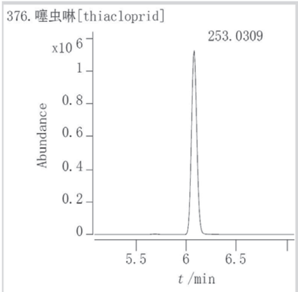

图 C.376 噻虫啉 EIC

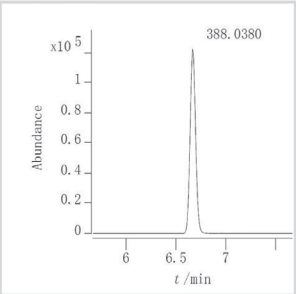

图 C. 377 噻吩磺隆 EIC

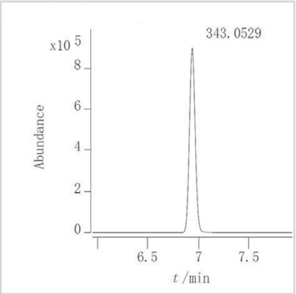

图 C. 378 甲基硫菌灵 EIC

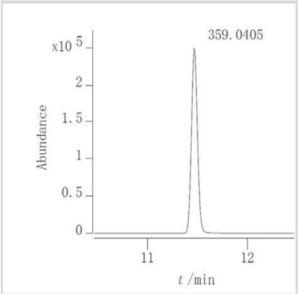

图 C. 379 杀铃脲 EIC

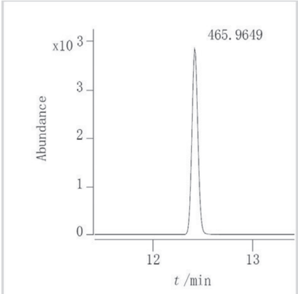

图 C. 380 吲唑磺菌胺 EIC

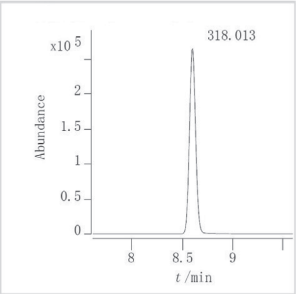

图 C. 381 保棉磷 EIC

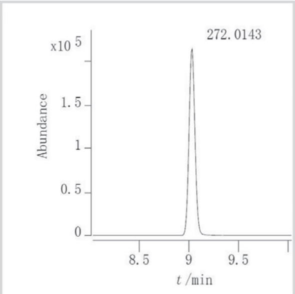

图 C. 382 草除灵乙酯 EIC

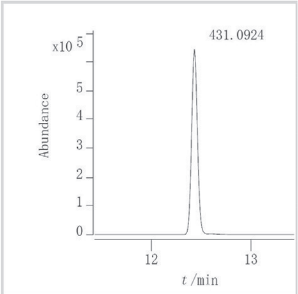

图 C. 383 吡草酮 EIC

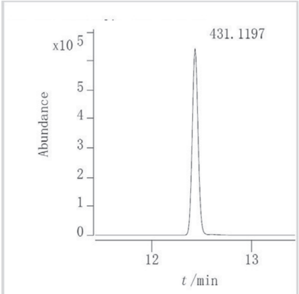

图 C. 384 双草醚 EIC

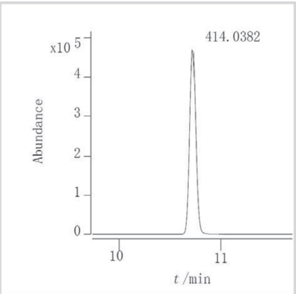

图 C. 385 联苯吡菌胺 EIC

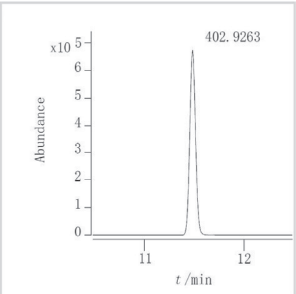

图 C. 386 溴苯烯磷 EIC

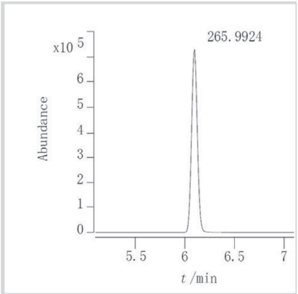

图 C. 387 溴莠敏 EIC

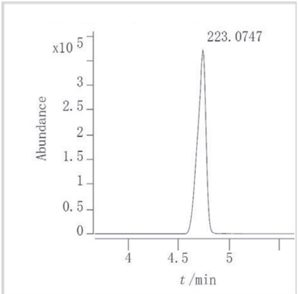

图 C. 388 丁酮砜威 EIC

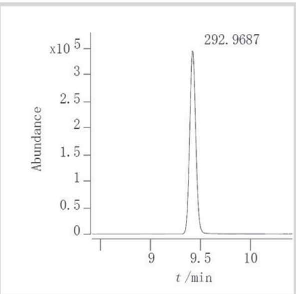

图 C. 389 氯溴隆 EIC

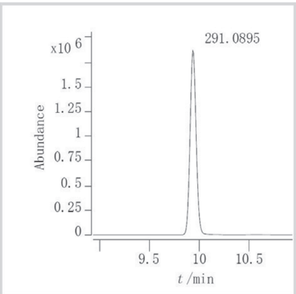

图 C. 390 枯草隆 EIC

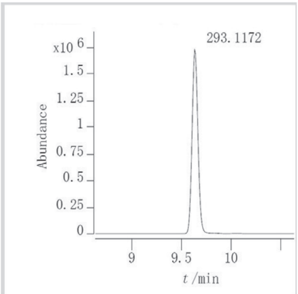

图 C. 391 杀鼠醚 EIC

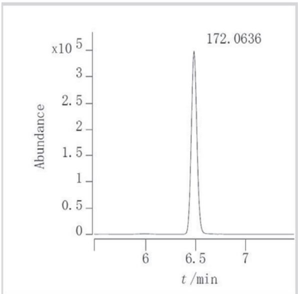

图 C. 392 杀鼠嘧啶 EIC

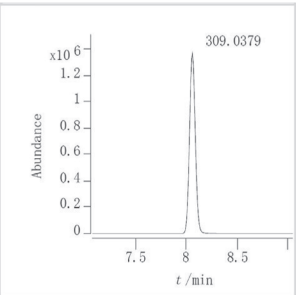

图 C. 393 丰索磷 EIC

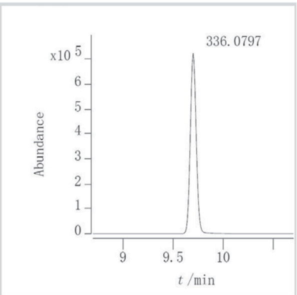

图 C. 394 麦草伏甲酯 EIC

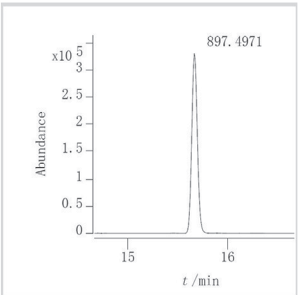

图 C. 395 依维菌素 EIC

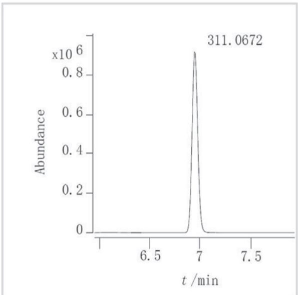

图 C. 396 氯磺酰草胺 EIC

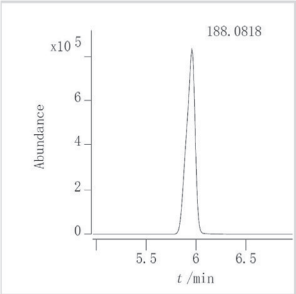

图 C.397 脱氨基苯嗪草酮 EIC

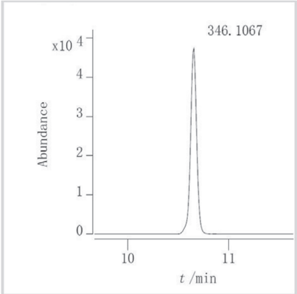

图 C.398 磺乐灵 EIC

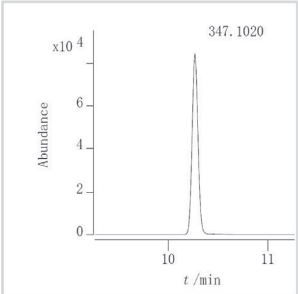

图 C.399 氨磺灵 EIC

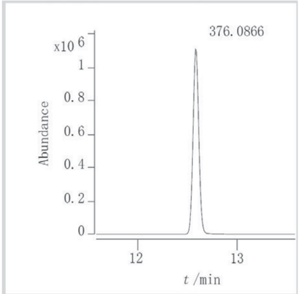

图 C.400 噁嗪草酮 EIC

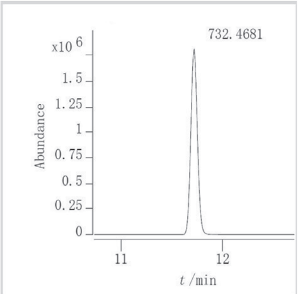

图 C.401 多杀霉素 A EIC

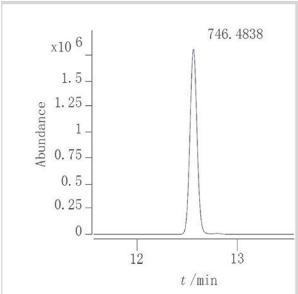

图 C.402 多杀霉素 D EIC

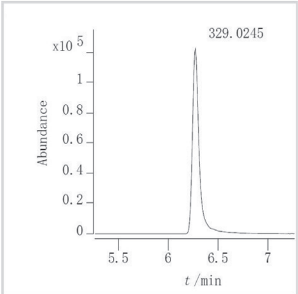

图 C.403 磺草酮 EIC

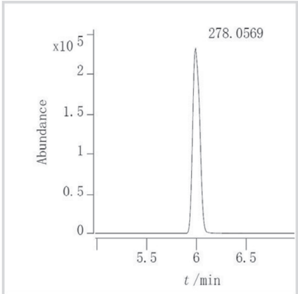

图 C.404 氟啶虫胺腈 EIC

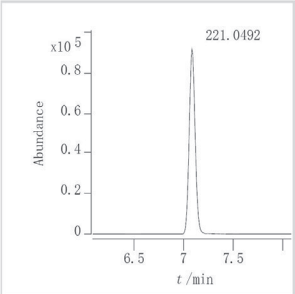

图 C.405 噻苯隆 EIC

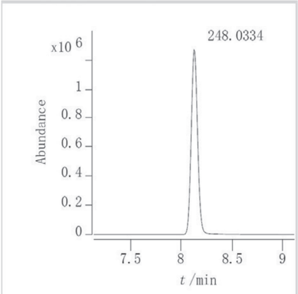

图 C.406 咪唑嗪 EIC

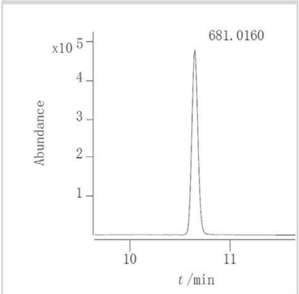

图 C.407 氟苯虫酰胺 EIC

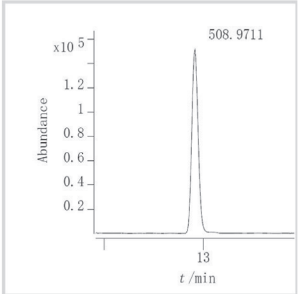

图 C.408 虱螨脲 EIC

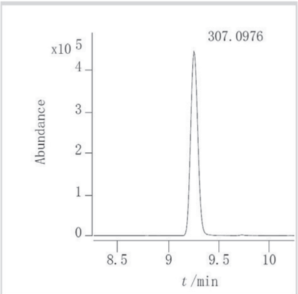

图 C.409 杀鼠灵 EIC

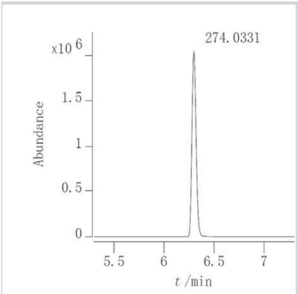

图 C.410 赛硫磷 EIC

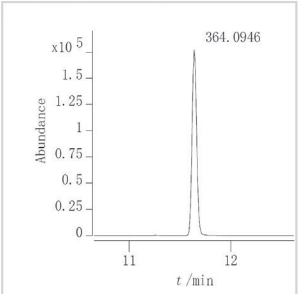

图 C.411 苯螨特 EIC

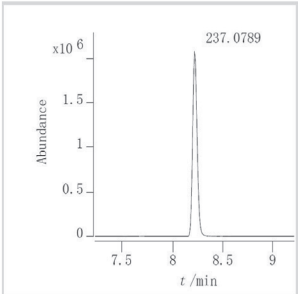

图 C.412 炔草隆 EIC

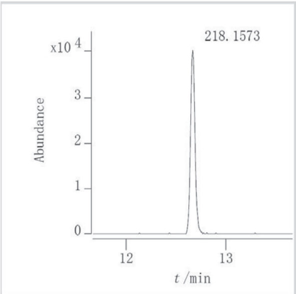

图 C.413 丁草敌 EIC

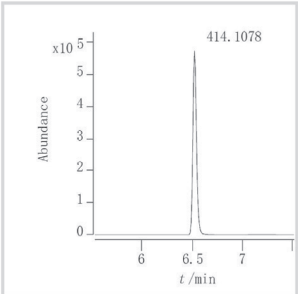

图 C.414 醚磺隆 EIC

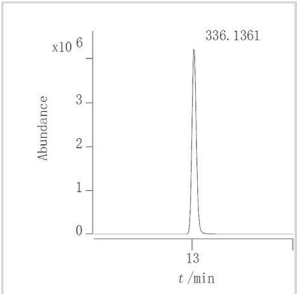

图 C.415 解草酯 EIC

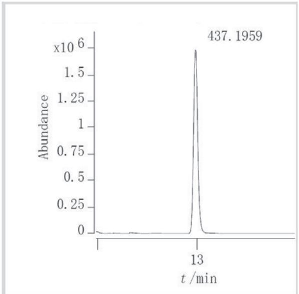

图 C.416 丁香菌酯 EIC

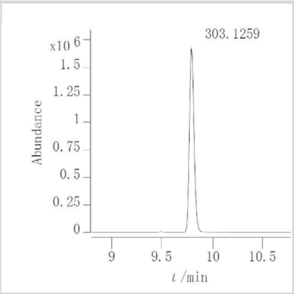

图 C.417 苄草隆 EIC

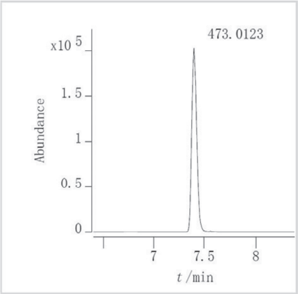

图 C.418 溴氰虫酰胺 EIC

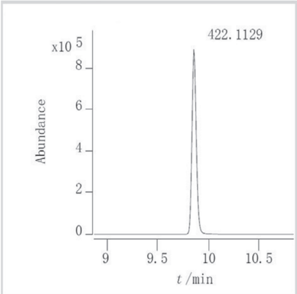

图 C.419 环丙嘧磺隆 EIC

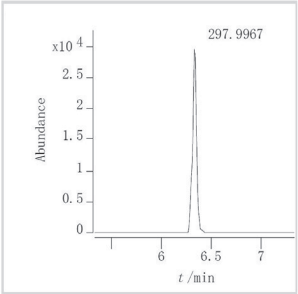

图 C.420 赛灭磷 EIC

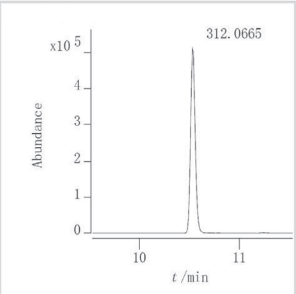

图 C.421 硫酮菌唑 EIC

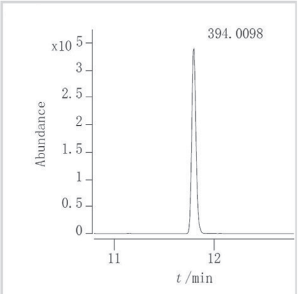

图 C.422 氯亚磷 EIC

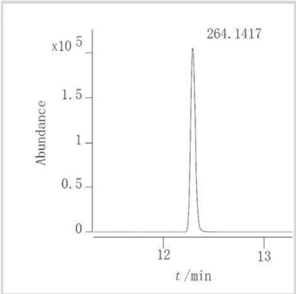

图 C.423 哌草丹 EIC

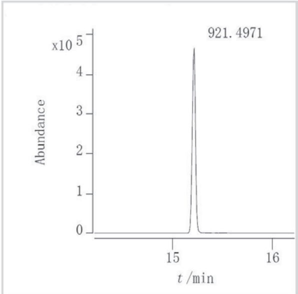

图 C.424 多拉菌素 EIC

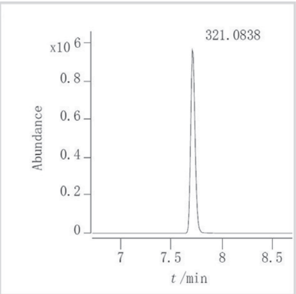

图 C.425 噻唑菌胺 EIC

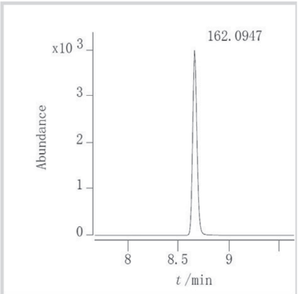

图 C.426 硫草敌 EIC

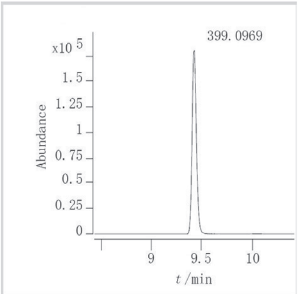

图 C.427 乙氧磺隆 EIC

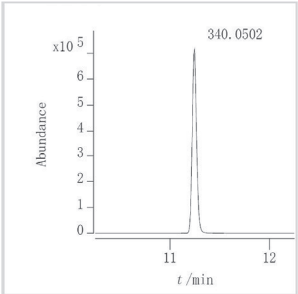

图 C.428 乙氧苯草胺 EIC

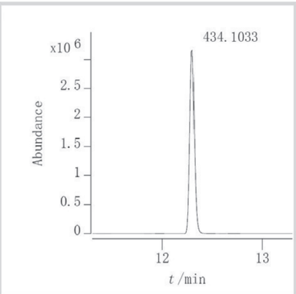

图 C.429 烯肟菌胺 EIC

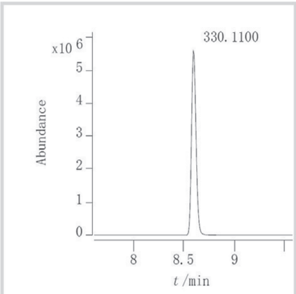

图 C.430 氟啶酮 EIC

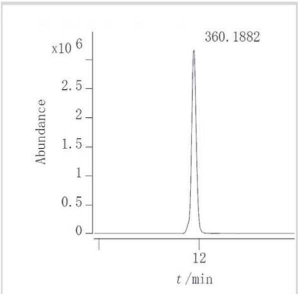

图 C.431 吡唑萘菌胺 EIC

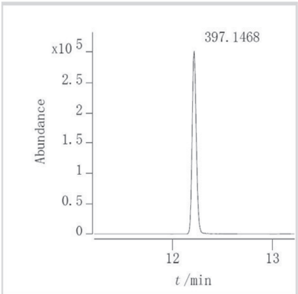

图 C.432 噻嗯菊酯 EIC

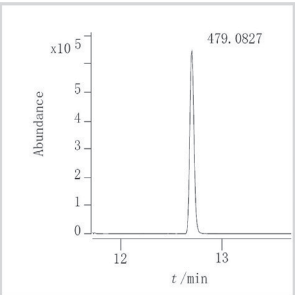

图 C.433 乳氟禾草灵 EIC

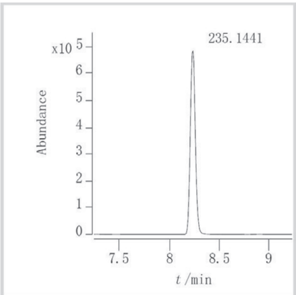

图 C.434 环草定 EIC

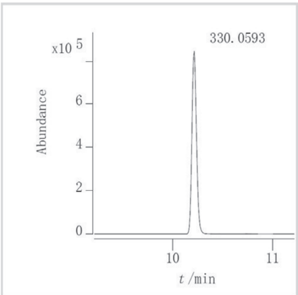

图 C.435 灭蚜磷 EIC

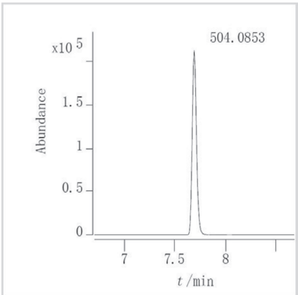

图 C.436 甲基二磺隆 EIC

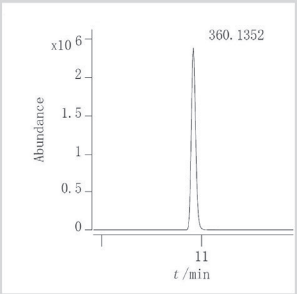

图 C.437 吡噻菌胺 EIC

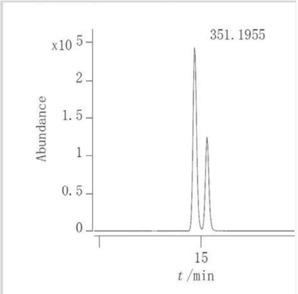

图 C.438 苯醚菊酯 EIC

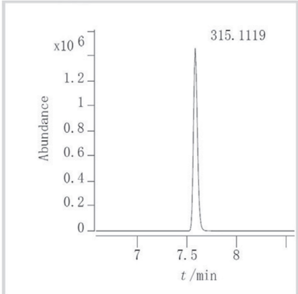

图 C.439 双唑草腈 EIC

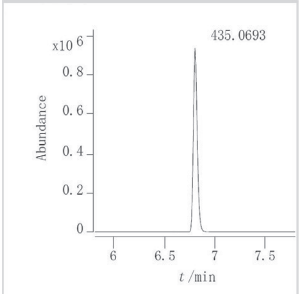

图 C.440 啶磺草胺 EIC

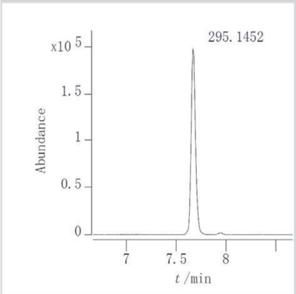

图 C.441 抑食肼 EIC

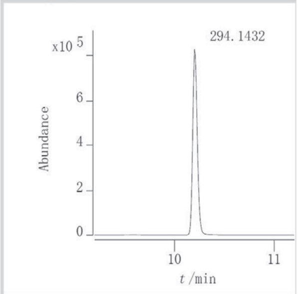

图 C.442 硅氟唑 EIC

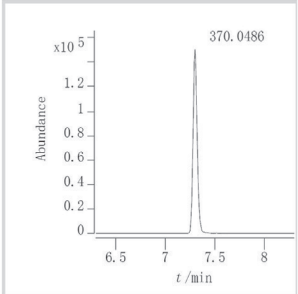

图 C.443 酰嘧磺隆 EIC

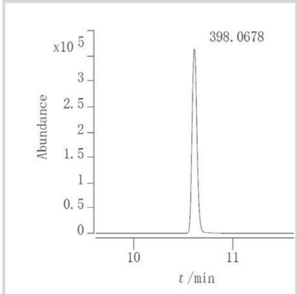

图 C.444 地散磷 EIC

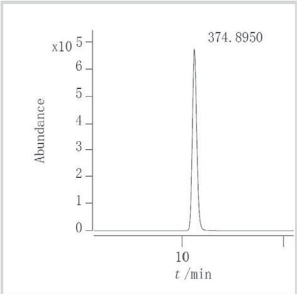

图 C.445 甲基溴苯烯磷 EIC

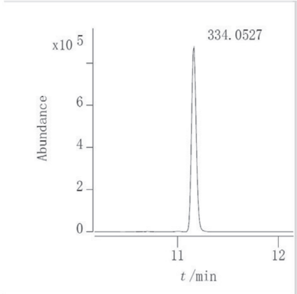

图 C.446 环丙酰菌胺 EIC

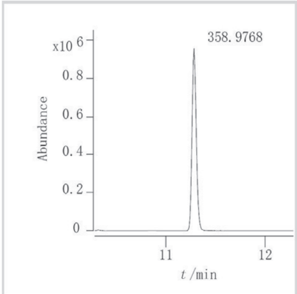

图 C.447 毒虫畏 EIC

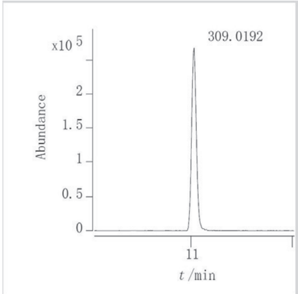

图 C.448 灭幼脲 EIC

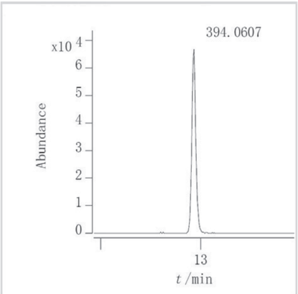

图 C.449 吲哚酮草酯 EIC

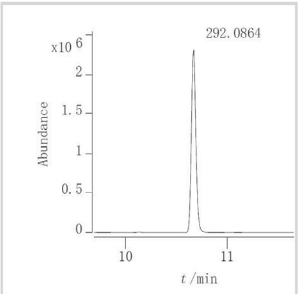

图 C.450 育畜磷 EIC

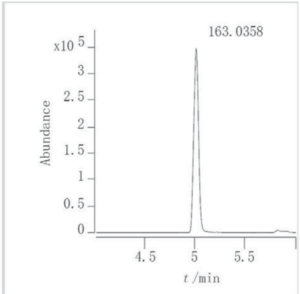

图 C.451 棉隆 EIC

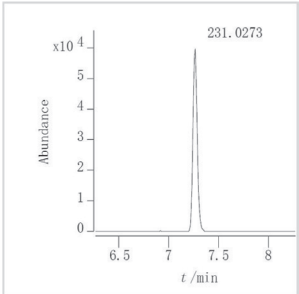

图 C.452 甲基内吸磷 EIC

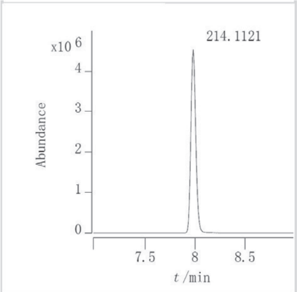

图 C.453 敌草净 EIC

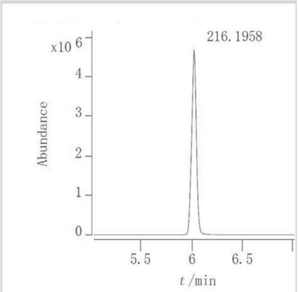

图 C.454 胺鲜酯 EIC

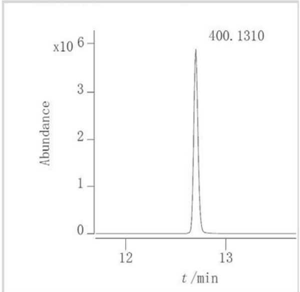

图 C.455 烯肟菌酯 EIC

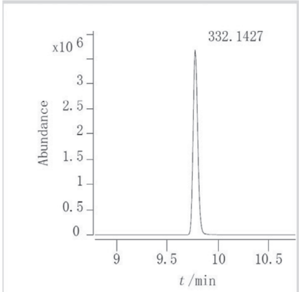

图 C.456 胺苯吡菌酮 EIC

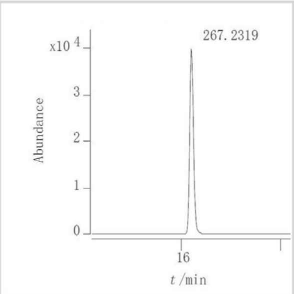

图 C.457 烯虫乙酯 EIC

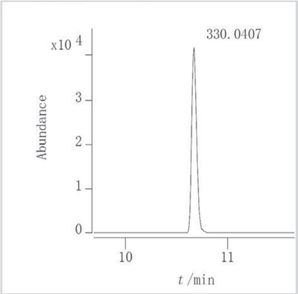

图 C.458 异菌脲 EIC

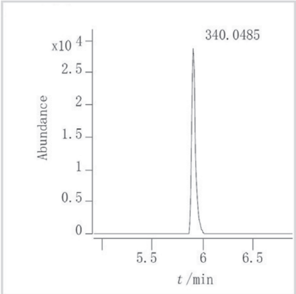

图 C.459 硝磺草酮 EIC

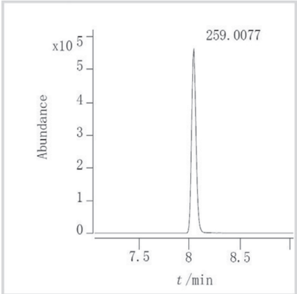

图 C.460 溴谷隆 EIC

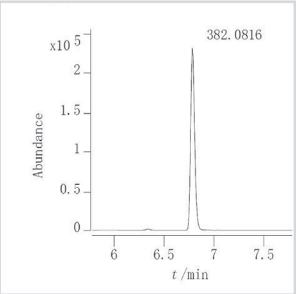

图 C.461 甲磺隆 EIC

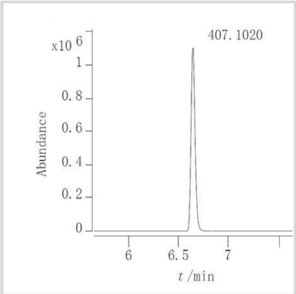

图 C.462 环氧嘧磺隆 EIC

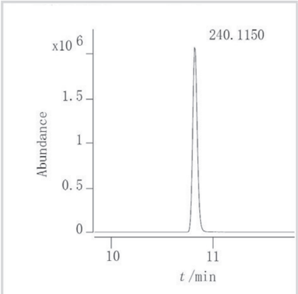

图 C.463 甲氯酰草胺 EIC

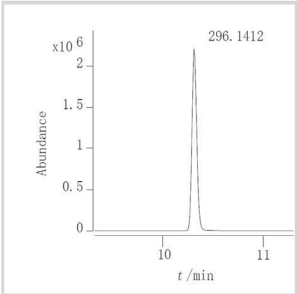

图 C.464 烯草胺 EIC

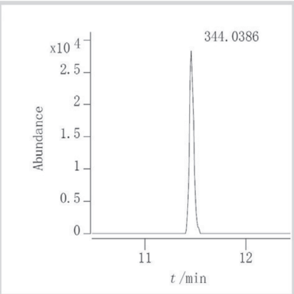

图 C.465 丙硫菌唑 EIC

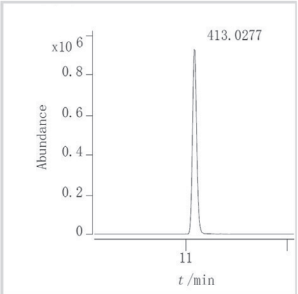

图 C.466 吡草醚 EIC

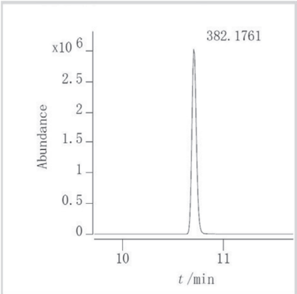

图 C.467 唑胺菌酯 EIC

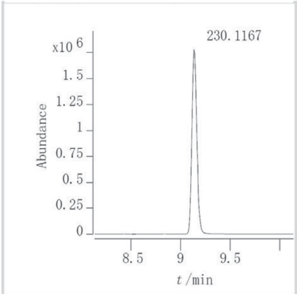

图 C.468 另丁津 EIC

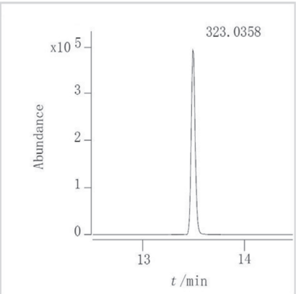

图 C.469 硫丙磷 EIC

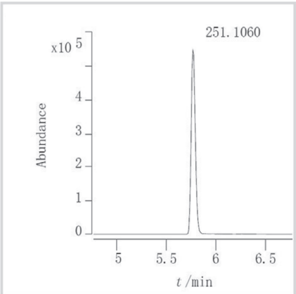

图 C.470 久效威砜 EIC

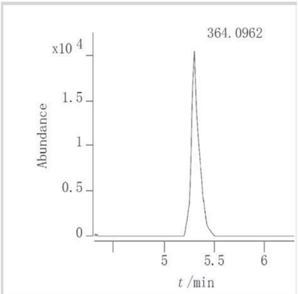

图 C.471 苯唑草酮 EIC

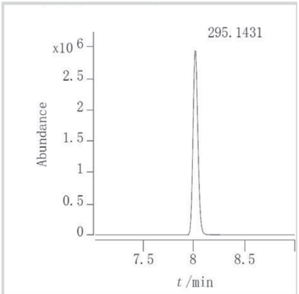

图 C.472 威菌磷 EIC

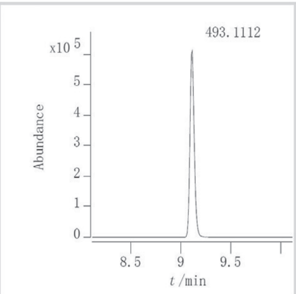

图 C.473 氟胺磺隆 EIC

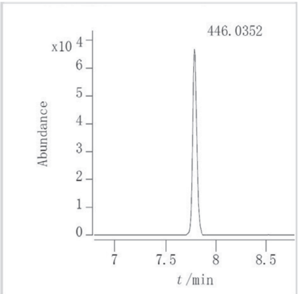

图 C.474 三氟甲磺隆 EIC

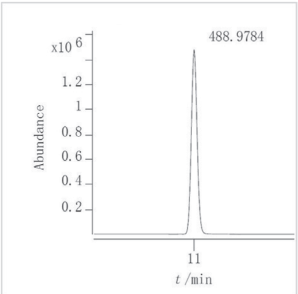

图 C.475 丁虫腈 EIC

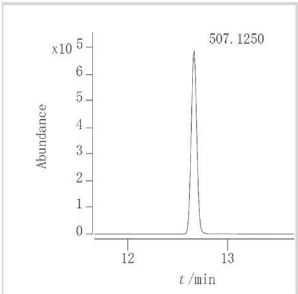

图 C.476 氰氟虫腙 EIC

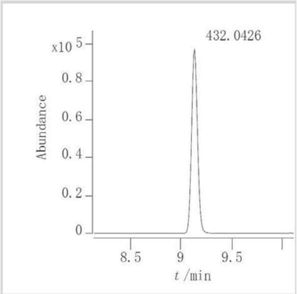

图 C.477 杀虫磺 EIC

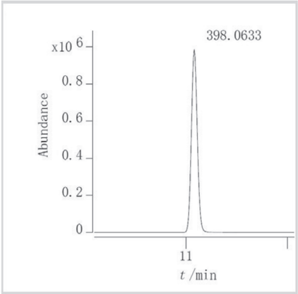

图 C.478 苯并烯氟菌唑 EIC

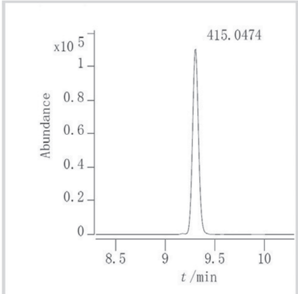

图 C.479 氯嘧磺隆 EIC

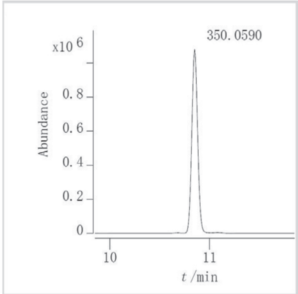

图 C.480 炔草酯 EIC

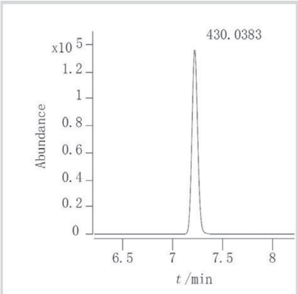

图 C.481 氯酯磺草胺 EIC

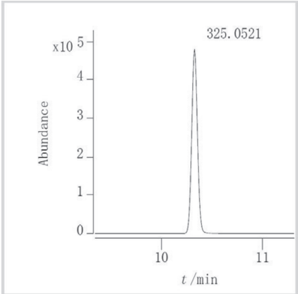

图 C.482 氰霜唑 EIC

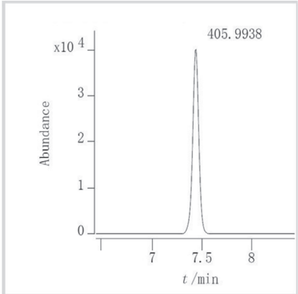

图 C.483 双氯磺草胺 EIC

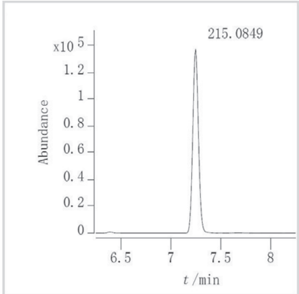

图 C.484 N,N-二甲基-N'-甲苯磺酰二胺 EIC

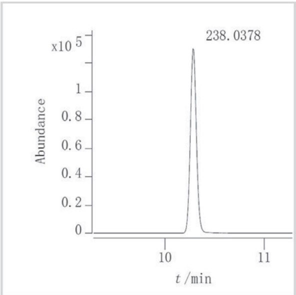

图 C.485 敌菌酮 EIC

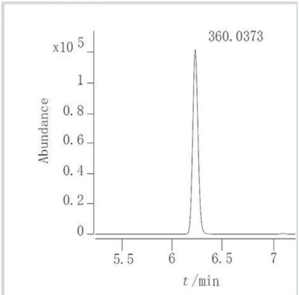

图 C.486 双氟磺草胺 EIC

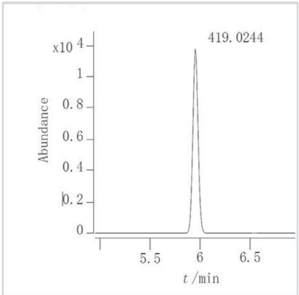

图 C.487 氟唑磺隆 EIC

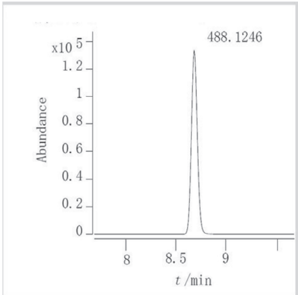

图 C.488 氟吡磺隆 EIC

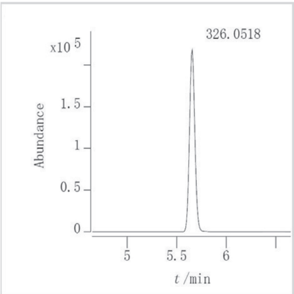

图 C.489 唑嘧磺草胺 EIC

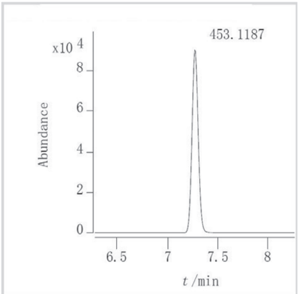

图 C.490 甲酰氨基嘧磺隆 EIC

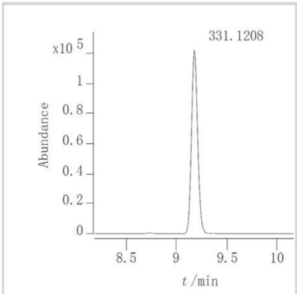

图 C.491 氯虫酰肼 EIC

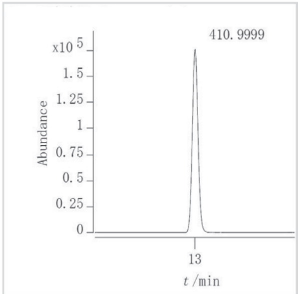

图 C.492 亚胺唑 EIC

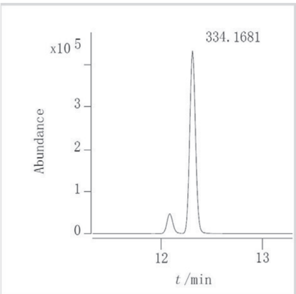

图 C.493 种菌唑 EIC

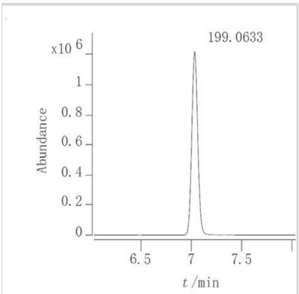

图 C.494 灭草隆 EIC

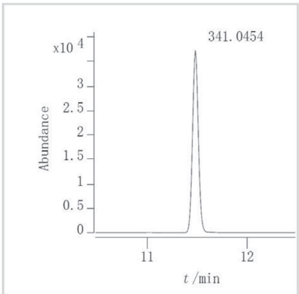

图 C.495 丙炔噁草酮 EIC

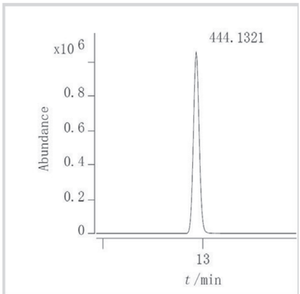

图 C.496噁草酸 EIC

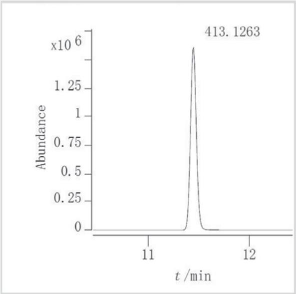

图 C. 497 唑菌酯 EIC

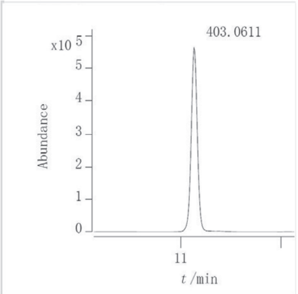

图 C. 498 苄草唑 EIC

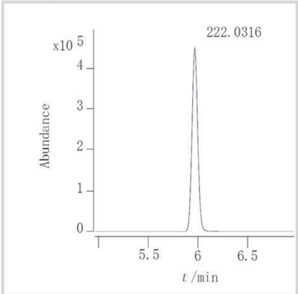

图 C. 499 喹草酸 EIC

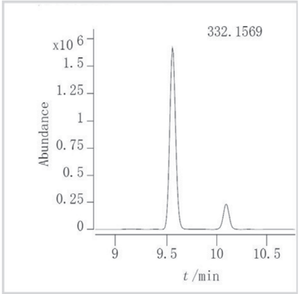

图 C. 500 氟唑环菌胺 EIC

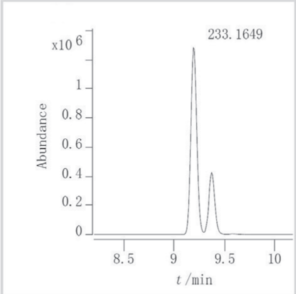

图 C. 501 环草隆 EIC

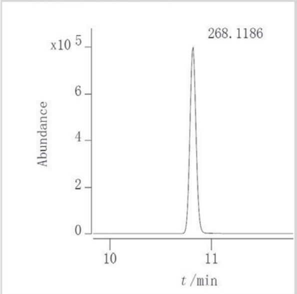

图 C. 502 硅噻菌胺 EIC

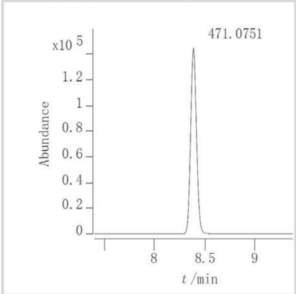

图 C. 503 磺酰磺隆 EIC

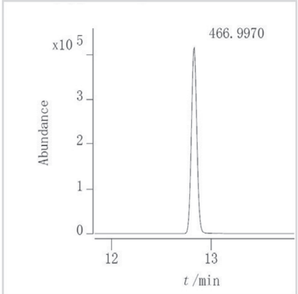

图 C. 504 双硫磷 EIC

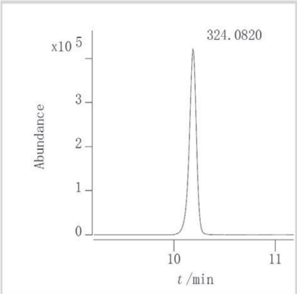

图 C. 505 甲氧噻草胺 EIC

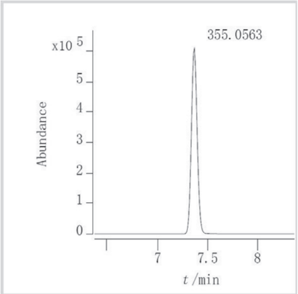

图 C. 506 硫双威 EIC

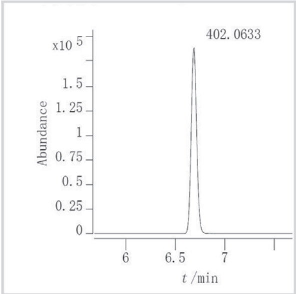

图 C. 507 醚苯磺隆 EIC

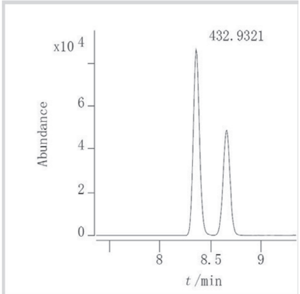

图 C. 508 嗪氨灵 EIC

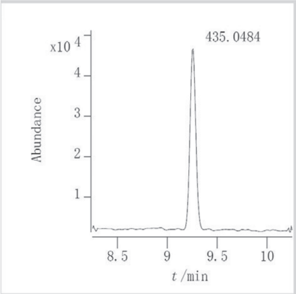

图 C. 509 氯吡嘧磺隆 EIC

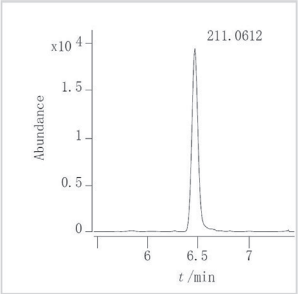

图 C. 510 调环酸 EIC

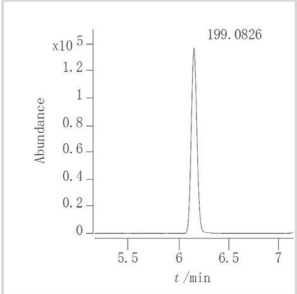

图 C. 511 霜脲氰 EIC

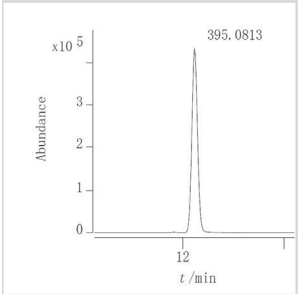

图 C. 512 吡氟酰草胺 EIC

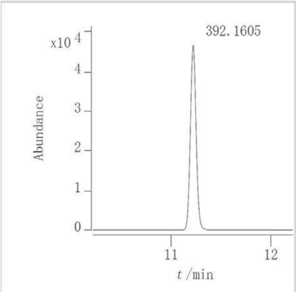

图 C. 513噁唑菌酮 EIC

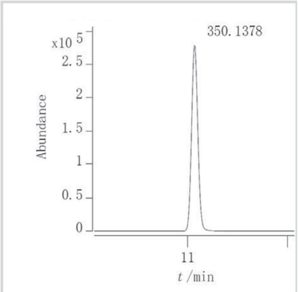

图 C. 514 四唑酰草胺 EIC

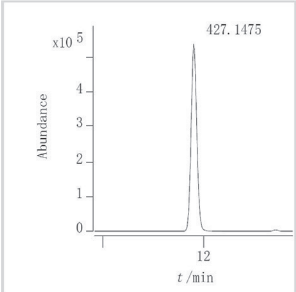

图 C. 515 嘧螨酯 EIC

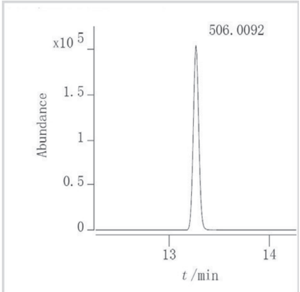

图 C. 516 氟啶蜱脲 EIC

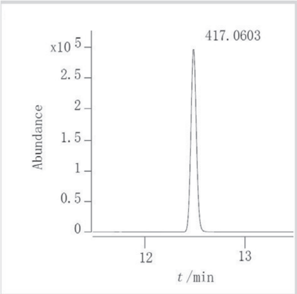

图 C. 517 氟螨噻 EIC

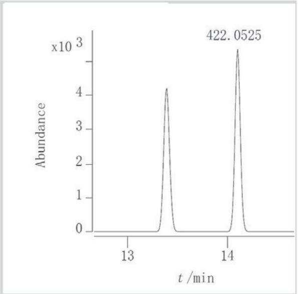

图 C. 518 氟节胺 EIC

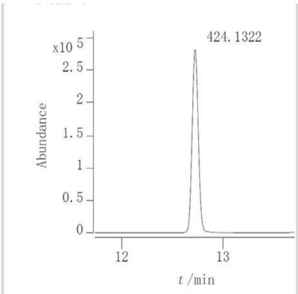

图 C. 519 氟烯草酸 EIC

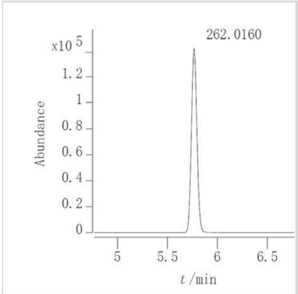

图 C. 520 氯噻啉 EIC

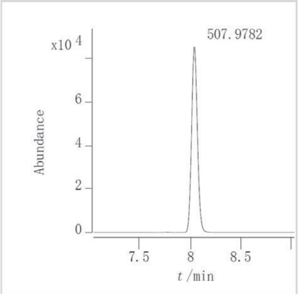

图 C. 521 甲基碘磺隆 EIC

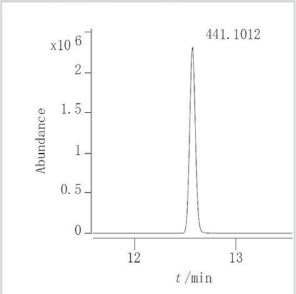

图 C. 522□唑酰草胺 EIC

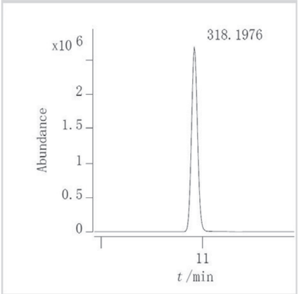

图 C. 523 氟唑菌苯胺 EIC

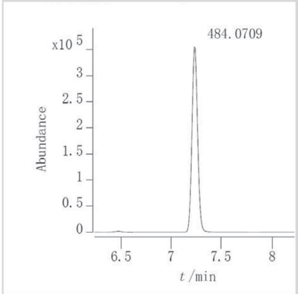

图 C. 524 五氟磺草胺 EIC

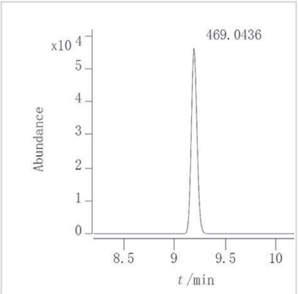

图 C. 525 甲基氟嘧磺隆 EIC

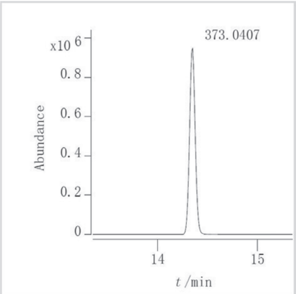

图 C. 526 丙氧喹啉 EIC

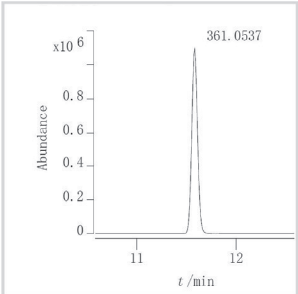

图 C. 527 吡唑硫磷 EIC

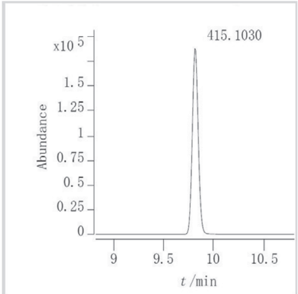

图 C. 528 吡嘧磺隆 EIC

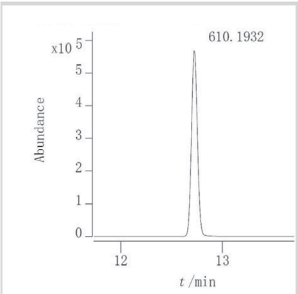

图 C. 529 嘧啶肟草醚 EIC

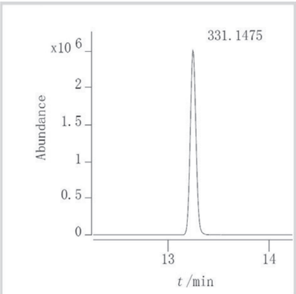

图 C. 530 稗草畏 EIC

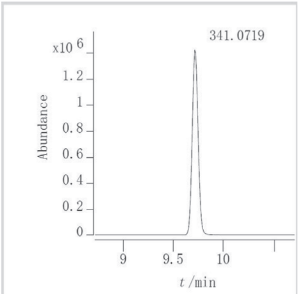

图 C. 531 哒嗪硫磷 EIC

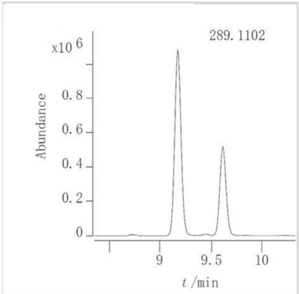

图 C. 532 啶菌噁唑 EIC

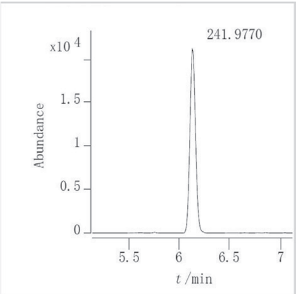

图 C. 533 二氯喹啉酸 EIC

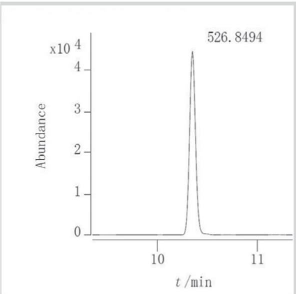

图 C. 534 噻呋酰胺 EIC

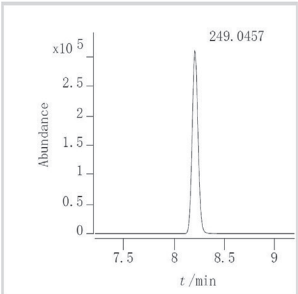

图 C. 535 虫线磷 EIC

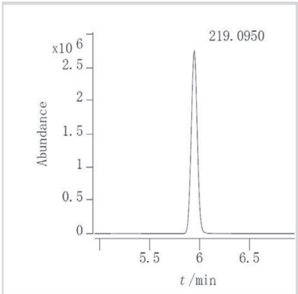

图 C. 536 螨蜱胺 EIC

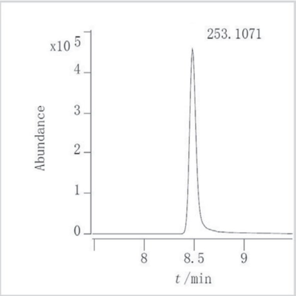

图 C.537 抗倒酯 EIC

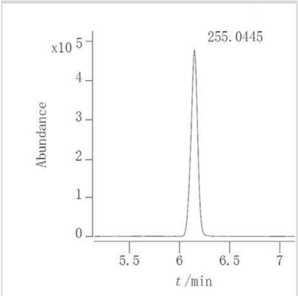

图 C.538 6-羟基灭草松 EIC

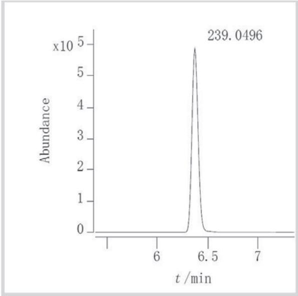

图 C.539 灭草松 EIC

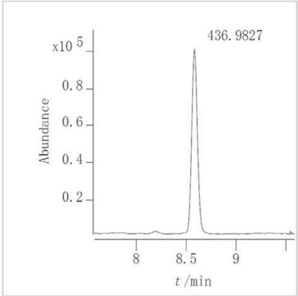

图 C.540 氟磺胺草醚 EIC

Foreword

This document was drafted according to GB/T 1.1–2020 (Directives for standardization– part 1: Rules for the structure and drafting of standardization documents) .Please notice that some parts of this document may involve patents. The publisher of this document has no responsibility to recognize these patents.

This document was proposed and is under the charge of General Administration of Customs, P.R. China.

This document was drafted by Animal Plants & Foods Inspection & Quarantine Technical Center of Shanghai Customs, Technical Center of Changchun Customs, Animal Plants & Foods Detection Center of Nanjing Customs, Technical Center of Heifei Customs, Technical Center of Xiamen Customs and Xiamen University.

The main drafters of this standard are Li You, Zeng Jing, Zhang Xun, Ding Tao, Liu Han, Han Fang, Song Wei, Zhang Yi, Zhang Shuran, Xu Dunming, Wu Caisheng, Yi Xionghai and Guo Dehua.

Screening determination of multi-groups of pesticides in plant-derived foods for export-Liquid coromatography-high resolution mass spectrometry

1 Scope

This document specifies the screening determination method by liquid coromatography-high resolution mass spectrometry method for 540 pesticides residue in plant-derived foods.

This document is applicable to the screening determination of 540 pesticides plant-derived foods such as vegetables, fruits, nuts, fungi, dried vegetables, dried fruits, dried fungi, grain and so on. Pesticides or compounds confirmed by this method should be accurately quantified by other standard methods.

2 Normative reference

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB 2763-2021 National food safety standard-Maximum redsidue limits for pesticides in food

GB/T 6682 Water for analytical laboratory use-Specification and test methods

3 Terms and definitions

There are no terms or definitions to be defined in this document.

4 Principle

Samples are extracted by acetonitrile. Extractive liquids are cleaned up with dispersive solid-phase extraction and screening determined by liquid coromatography-high resolution mass spectrometry.

5 Reagents and materials

All the reagents used should be analytical reagent (AR) grade unless otherwise specified. "Water" is first class water prescribed by GB/T 6682.

5.1 Reagents

5.1.1 Methanol (CH_3OH): HPLC grade.

5.1.2 Acetonitrile (CH_3CN): HPLC grade.

5.1.3 Formic acid (HCOOH): HPLC grade.

5.1.4 Magnesium sulfate ($MgSO_4$): Grinded and dried with 500 ℃ for 5 h, cooled to 200 ℃, then bottled and stored in the dryer just before use.

5.1.5 Sodium Chloride (NaCl).

5.1.6 Sodium citrate ($C_6H_5Na_3O_7 \cdot 2H_2O$) .

5.1.7 Sodium hydrogen citrate ($C_6H_6Na_2O_7 \cdot 1.5H_2O$) .

5.1.8 Ammonium acetate (CH_3COONH_4) .

5.2 Preparation of solution

5.2.1 5 mmol/L ammonium acetate–0.1% formic acid–water solution : accurately weigh 0.385 g of ammonium acetate and desolve with water, add 1 mL of formic acid and transfer into a 1 L volumetric flask and then make up to graduation with water.

5.2.2 5 mmol/L ammonium acetate–methanol solution : accurately weigh 0.385 g of ammonium acetate and desolve with methanol, transfer into a 1 L volumetric flask and then make up to graduation with methanol.

5.3 Standards

Purity: $w \geqslant 95\%$. Detailed information of the compounds is listed in Table A.1 in Appendix A.

5.4 Preparation of standard solutions

5.4.1 Stock standard solution: Weigh 10 mg (accurate to 0.1 mg) of standard (5.3) and dissolve in proper solvent according to the solubility of each compound, then transfer into a 10 mL volumetric flask, mix and make up to volume to make a mixed stock solutions of 1000 μg/mL (commerical mixed standard solutions are capable as well) . The stock solution should be stored below −18 ℃ and kept in dark place, assigning a shelflife of 6 months.

5.4.2 Mixed intermediate standard solution: Accurately transfer an appropriate amount of stock solution (5.4.1) into a volumetric flask, make up to volume with acetonitrile to make a final concentration of 1 μg/mL. The mixed intermediate solution should be stored below −18 ℃ and kept in dark place, assigning a shelflife of 3 months.

5.4.3 Mixed working standard solution: Accurately transfer an appropriate amount of mixed intermediate solution (5.4.2) into a volumetric flask, make up to volume with acetonitrile to make a final concentration of 100 ng/mL. The mixed intermediate solution should be stored below −18 ℃ and kept in dark place, assigning a shelflife of 3 months.

5.5 Materials

5.5.1 C_{18} EC: 40 μm ~ 60 μm.

5.5.2 Primary secondary amine (PSA): 40 μm ~ 60 μm.

5.5.3 Graphitized carbon black (GCB): 40 μm ~ 120 μm.

5.5.2 Ceramic homogenized proton: 2 cm × 1 cm (o.d.) (or other equivalent ones) .

5.5.5 Membrane filter: 0.22 μm nylon.

6 Apparatus and equipment

6.1 Liquid coromatography–high resolution mass spectrometry, equipped with electrospray ion source (ESI), with resolution greater than 10 000 for the entire mass range at 10 % valley or 20 000 at full width at half maximum (FWHM) .

6.2 Electronic balance (d=0.01 g & 0.0001 g) .

6.3 Centrifuge: 4000 r/min, 10000 r/min.

6.4 Homogenizer.

6.5 Vortex mixer.

7 Preparation and storage of test samples

7.1 Preparation of test samples

7.1.1 Determination part of test samples

The determination part of test samples shall be carried out in accordance with Appendix A of GB 2763–2021.

7.1.2 Nuts, edible fungi, vegetables and fruits

Nuts, edible fungi, vegetables and fruits are randomly sampled for 1 kg. For samples with smaller individuals, all samples are processed after sampling; for basically uniform samples with larger individuals, they can be divided or cut into small pieces on the axis or plane of symmetry; for samples with slender, flat or different component content in different parts, small pieces can be cut or cut into small segments for post-processing. After taking the sample, cut it into pieces, mix it well, take part or all of it with a tissue crusher, homogenize it, and put it into a polyethylene bottle.

7.1.3 Dried vegetables, fruits and fungi

Samples of dried vegetables, fruits and edible fungi were randomly sampled at 500 g, crushed and fully mixed, and put into polyethylene bottles or bags.

7.1.4 Grain

500 g of grain was randomly sampled and crushed so that all of it could be put into polyethylene bottles or bags through a standard screen of 425 μ m.

7.2 Storage of test samples

Divide the prepared samples into two parts and sealed below −18 ℃.

8 Analysis procedure

8.1 Pretreatment

8.1.1 Vegetable, fruits and fungi

Weigh 10 g (accurate to 0.01 g) of the test sample into a 50 mL centrifuge tube, add 10 mL of acetonitrile and homogeneous extract at 20000 r/min for 2 min, add two ceramic homogenized protons. Weigh and add 4 g of $MgSO_4$, 1 g of NaCl, 1 g of $C_6H_5Na_3O_7 \cdot 2H_2O$, 0.5 g of $C_6H_6Na_2O_7 \cdot 1.5H_2O$, vibrate vigorously for 5 min immediately, and then centrifuge at 4000 r/min for 5 min. Transfer 1 mL of the supernatant into a 15 mL centrifuge tube which contains 5 mg of PSA, 150 mg of $MgSO_4$ and 50 mg C_{18} (for extracts with dark color, add 2.5 mg of GCB). Vibrate vigorously for 2 min and centrifuge at 10000 r/min for 5 min. Transfer 500 μL of the supernatant and make up to 1 mL with acetonitrile, filter the analysis sample through 0.22μm nylon film before analysis. Dilute the analysis samples of which the signal saturate if the signal is saturated.

8.1.2 Dride vegetable, dried fruits and dried fungi

Weigh 2 g (accurate to 0.01 g) of the test sample into a 50 mL centrifuge tube, add 10 mL of water and soak for 30 min, then perform following the remaining steps of 8.1.1.

8.1.3 Grain, oil seed and nuts

Weigh 5 g (accurate to 0.01 g) of the test sample into a 50 mL centrifuge tube, add 10 mL of water and soak for 30 min, add 10 mL of acetonitrile and homogeneous extract at 20000 r/min for 2 min, add two ceramic homogenized protons. Weigh and add 4 g of $MgSO_4$, 1 g of NaCl, 1 g of $C_6H_5Na_3O_7 \cdot 2H_2O$, 0.5 g of $C_6H_6Na_2O_7 \cdot 1.5H_2O$, vibrate vigorously for 5 min immediately, and then centrifuge at 4000 r/min for 5 min. Transfer 1 mL of the supernatant into a 15 mL centrifuge tube which contains 5 mg of PSA, 150 mg of $MgSO_4$ and 50 mg C_{18}. Vibrate vigorously for 2 min and centrifuge at 10000 r/min for 5 min. Transfer 500 μL of the supernatant and make up to 1 mL with acetonitrile, filter the analysis sample through 0.22μm nylon film before analysis. Dilute the analysis samples of which the signal saturate if the signal is saturated.

8.2 Preparation of the blank sample solution

Prepare the samples which do not contain any target compounds by following section 8.1.

8.3 Preparation of the mixed matrix-matched standard solution

8.3.1 Vegetable, fruits and fungi

Accurately transfer 100 μL of mixed working solution (5.4.3) and make up to 1 mL with acetonitrile, then accurately transfer 500 μL and make up to 1 mL with blank matrix solution (8.2) to final concentration of 5 ng/mL. Prepare just before use.

8.3.2 Dried vegetable, fruits and fungi

Accurately transfer 20 μL of mixed working solution (5.4.3) and make up to 1 mL with acetonitrile. Then dilute with blank matrix solution (8.2) to final concentration of 2 ng/mL. Prepare just before use.

8.3.3 Grain, oil seed and nuts

Accurately transfer 50 μL of mixed working solution (5.4.3) and make up to 1 mL with acetonitrile. Then dilute with blank matrix solution (8.2) to final concentration of 2.5 ng/mL. Prepare just before use.

8.4 Determination

8.4.1 Liquid chromatography conditions

HPLC operation conditions are as follows:

a) LC column: C_{18}, 150 mm × 3.0 mm (i.d.), 2.7 μm (or other equivalent ones);
b) Mobile phase: A: 5 mmol/L ammonium acetate-0.1% formic acid-water solution, B: 5 mmol/L ammonium acetate-methanol solution, the reference elution gradient is listed in Table 1;
c) Flow rate: 0.4 mL/min;
d) Column temperature: 40 ℃;
e) Injection volume: 10 mL.

Table 1 Elution gradient

time (min)	mobile phase A (%) 5 mmol/L ammonium acetate-0.1% formic acid-water solution	mobile phase B (%) 5 mmol/L ammonium acetate- -methanol solution
0.0	95	5

Table 1 （continued）

time（min）	mobile phase A（%） 5 mmol/L ammonium acetate–0.1% formic acid–water solution	mobile phase B（%） 5 mmol/L ammonium acetate– –methanol solution
1.0	95	5
4.0	40	60
14.0	0	100
18.0	0	100
18.1	95	5

8.4.2 Mass spectrometry condition

Reference conditions are listed in Appendix B.

8.4.3 Establishment of the mass spectrometry database

8.4.3.1 MS spectrometry database

Input the coumpunds name, CAS number and molecure formula of 540 pesticides into mass spectrometry library construction software, calculate the theoretical accurate mass number of each compound. Under the liquid coromatography–high resolution mass spectrometry operating conditions（8.4.1 and 8.4.2）, inject the mixed working standard solution（5.4.3）and analyse with MS scan mode. Select the data results of unsaturated signal strength and obtain the retention time and the molecular ion adduct form and then establish the MS accurate quality database of 540 pesticide.

8.4.3.2 MSMS spectrometry database

Under the liquid coromatography–high resolution mass spectrometry operating conditions（8.4.1 and 8.4.2）, inject the mixed intermediate standard solution（5.4.2）, analyse with MSMS scan with different collision energy, obtain the parent ion and typical fragment ion and then establish the MSMS accurate quality database of 540 pesticide. Reference parent ion and typical product ions are listed in Appendix B.

8.4.4 Identification of the target compoud

Under the liquid coromatography–high resolution mass spectrometry operating conditions（8.4.1 and 8.4.2）, inject the sample solution and determine with MS scan mode. The corresponding pesticide or compound may be present in sample if the result meet decision conditions listed in Table 2. After that, the confirmation procedure should be performed following 8.4.5.

Table2 Decision conditions of identification

Items	Condition	Note
Signal Stength	S/N ≥ 3	Chromatographic peaks
Rention Time	≤ ±2.5%	Also ≤ ±0.5 min
Mass accuracy of parent ion	≤0.001%	

8.4.5 Confirmation of the target compound

For the pesticides or compounds primarily determined by 8.4.4, inject the sample solution and the mixed matrix–matched standard solution (8.3) with MS/MS mode under the liquid coromatography–high resolution mass spectrometry operating conditions (8.4.1 and 8.4.2), and compare the result of sample solution with matrix–match standard working solution. If the result meets the decision condition of confirmation (see Table 3), it could be judged that the corresponding pesticide or compound may be present in sample. Accurate quantitation should be performed according to other confirmation standards.

Table3 Decision condition of confirmation

Items	Condition	Note
Signal Stength	The detection concentration is higher than that of the matrix standard solution.	Chromatographic peaks
Rention Time	≤ ±0.2 min	Compared to the target compounds in matrix standard solution
Mass accuracy of parent ion	≤0.0005%	
Mass accuracy of product ion	≤0.001%	

The extracted ion chromatograms of 540 compounds are listed in Appendix C.

9 False negative rate

The false negative rate of this method is less than or equal to 5%.

10 False positive rate

The false positive rate of this method is less than or equal to 15%.

11 Screening detection limit

The screening detection limitof this method is 0.01 mg/kg.

Appendix A
(Normative reference)
Information of 540 pesticides

A.1 Information of 540 pesticides see Table A.1.

Table A.1 Information of 540 pesticides

No.	Compound Name	Molecular formula	CAS Number
1	acephate	$C_4H_{10}NO_3PS$	30560–19–1
2	acetochlor	$C_{14}H_{20}ClNO_2$	34256–82–1
3	allethrin	$C_{19}H_{26}O_3$	584–79–2
4	atrazine	$C_8H_{14}ClN_5$	1912–24–9
5	azamethiphos	$C_9H_{10}ClN_2O_5PS$	35575–96–3
6	azinphos–ethyl	$C_{12}H_{16}N_3O_3PS_2$	2642–71–9
7	azoxystrobin	$C_{22}H_{17}N_3O_5$	131860–33–8
8	benfuracarb	$C_{20}H_{30}N_2O_5S$	82560–54–1
9	bifenazate	$C_{17}H_{20}N_2O_3$	149877–41–8
10	buprofezin	$C_{16}H_{23}N_3OS$	69327–76–0
11	butachlor	$C_{17}H_{26}ClNO_2$	23184–66–9
12	butralin	$C_{14}H_{21}N_3O_4$	33629–47–9
13	cadusafos	$C_{10}H_{23}O_2PS_2$	95465–99–9
14	carbaryl	$C_{12}H_{11}NO_2$	63–25–2
15	carbophenothion	$C_{11}H_{16}ClO_2PS_3$	786–19–6
16	carbosulfan	$C_{20}H_{32}N_2O_3S$	55285–14–8
17	chlorfluazuron	$C_{20}H_9Cl_3F_5N_3O_3$	71422–67–8
18	chlorpyrifos	$C_9H_{11}Cl_3NO_3PS$	2921–88–2
19	chlorpyrifos–methyl	$C_7H_7Cl_3NO_3PS$	5598–13–0
20	chlorotoluron	$C_{10}H_{13}ClN_2O$	15545–48–9
21	crotoxyphos	$C_{14}H_{19}O_6P$	7700–17–6
22	coumaphos	$C_{14}H_{16}ClO_5PS$	56–72–4
23	disulfoton	$C_8H_{19}O_2PS_3$	298–04–4
24	cyprodinil	$C_{14}H_{15}N_3$	121552–61–2
25	deltamethrin	$C_{22}H_{19}Br_2NO_3$	52918–63–5
26	demeton	$C_8H_{19}O_3PS_2$	8065–48–3
27	demeton– methyl sulfone	$C_6H_{15}O_5PS_2$	17040–19–6
28	demeton– methyl sulfoxide	$C_6H_{15}O_4PS_2$	301–12–2
29	dichlofenthion	$C_{10}H_{13}Cl_2O_3PS$	97–17–6
30	dichlorvos	$C_4H_7Cl_2O_4P$	62–73–7
31	dicrotophos	$C_8H_{16}NO_5P$	141–66–2
32	diethofencarb	$C_{14}H_{21}NO_4$	87130–20–9
33	dimethoate	$C_5H_{12}NO_3PS_2$	60–51–5
34	diniconazole	$C_{15}H_{17}Cl_2N_3O$	83657–24–3
35	disulfoton–sulfone	$C_8H_{19}O_4PS_3$	2497–06–5
36	disulfoton–sulfoxide	$C_8H_{19}O_3PS_3$	2497–07–6
37	ditalimfos	$C_{12}H_{14}NO_4PS$	5131–24–8
38	edifenphos	$C_{14}H_{15}O_2PS_2$	17109–49–8
39	ethion	$C_9H_{22}O_4P_2S_4$	563–12–2

Table A.1 （continued）

No.	Compound Name	Molecular formula	CAS Number
40	ethoprophos	$C_8H_{19}O_2PS_2$	13194-48-4
41	fenamiphos	$C_{13}H_{22}NO_3PS$	22224-92-6
42	fenamiphos sulfone	$C_{13}H_{22}NO_5PS$	31972-44-8
43	fenamiphos sulfoxide	$C_{13}H_{22}NO_4PS$	31972-43-7
44	fenarimol	$C_{17}H_{12}Cl_2N_2O$	60168-88-9
45	fenbuconazole	$C_{19}H_{17}ClN_4$	114369-43-6
46	fenobucarb	$C_{12}H_{17}NO_2$	3766-81-2
47	fenpropathrin	$C_{22}H_{23}NO_3$	39515-41-8
48	fenthion	$C_{10}H_{15}O_3PS_2$	55-38-9
49	fenthion oxon	$C_{10}H_{15}O_4PS$	6552-12-1
50	fenthion oxon sulfone	$C_{10}H_{15}O_6PS$	14086-35-2
51	fenthion oxon sulfoxide	$C_{10}H_{15}O_5PS$	6552-13-2
52	fenthion sulfone	$C_{10}H_{15}O_5PS_2$	3761-42-0
53	fenthion sulfoxide	$C_{10}H_{15}O_4PS_2$	3761-41-9
54	fonofos	$C_{10}H_{15}OPS_2$	944-22-9
55	fosthiazate	$C_9H_{18}NO_3PS_2$	98886-44-3
56	heptenophos	$C_9H_{12}ClO_4P$	23560-59-0
57	hexaconazole	$C_{14}H_{17}Cl_2N_3O$	79983-71-4
58	imazalil	$C_{14}H_{14}Cl_2N_2O$	35554-44-0
59	indoxacarb	$C_{22}H_{17}ClF_3N_3O_7$	144171-61-9
60	iprobenfos	$C_{13}H_{21}O_3PS$	26087-47-8
61	iprovalicarb	$C_{18}H_{28}N_2O_3$	140923-17-7
62	isazofos	$C_9H_{17}ClN_3O_3PS$	42509-80-8
63	isocarbophos	$C_{11}H_{16}NO_4PS$	24353-61-5
64	isofenphos	$C_{15}H_{24}NO_4PS$	25311-71-1
65	isofenphos-methyl	$C_{14}H_{22}NO_4PS$	99675-03-3
66	isofenphos oxon	$C_{15}H_{24}NO_5P$	31120-85-1
67	isoxathion	$C_{13}H_{16}NO_4PS$	18854-01-8
68	kresoxim-methyl	$C_{18}H_{19}NO_4$	143390-89-0
69	linuron	$C_9H_{10}Cl_2N_2O_2$	330-55-2
70	malaoxon	$C_{10}H_{19}O_7PS$	1634-78-2
71	malathion	$C_{10}H_{19}O_6PS_2$	121-75-5
72	mephosfolan	$C_8H_{16}NO_3PS_2$	950-10-7
73	methamidophos	$C_2H_8NO_2PS$	10265-92-6
74	methidathion	$C_6H_{11}N_2O_4PS_3$	950-37-8
75	metolachlor	$C_{15}H_{22}ClNO_2$	51218-45-2
76	metolcarb	$C_9H_{11}NO_2$	1129-41-5
77	mevinphos	$C_7H_{13}O_6P$	7786-34-7
78	monocrotophos	$C_7H_{14}NO_5P$	6923-22-4
79	napropamide	$C_{17}H_{21}NO_2$	15299-99-7
80	omethoate	$C_5H_{12}NO_4PS$	1113-02-6
81	paclobutrazol	$C_{15}H_{20}ClN_3O$	76738-62-0

Table A.1 （continued）

No.	Compound Name	Molecular formula	CAS Number
82	paraoxon	$C_{10}H_{14}NO_6P$	311–45–5
83	paraoxon–methyl	$C_8H_{10}NO_6P$	950–35–6
84	pendimethalin	$C_{13}H_{19}N_3O_4$	40487–42–1
85	phenthoate	$C_{12}H_{17}O_4PS_2$	2597–03–7
86	phorate	$C_7H_{17}O_2PS_3$	298–02–2
87	phorate sulfone	$C_7H_{17}O_4PS_3$	2588–04–7
88	phorate sulfoxide	$C_7H_{17}O_3PS_3$	2588–03–6
89	desmethyl–pirimicarb	$C_{10}H_{16}N_4O_2$	30614–22–3
90	phosalone	$C_{12}H_{15}ClNO_4PS_2$	2310–17–0
91	phosfolan	$C_7H_{14}NO_3PS_2$	947–02–4
92	phosmet	$C_{11}H_{12}NO_4PS_2$	732–11–6
93	phosphamidon	$C_{10}H_{19}ClNO_5P$	13171–21–6
94	picoxystrobin	$C_{18}H_{16}F_3NO_4$	117428–22–5
95	piperonyl butoxide	$C_{19}H_{30}O_5$	51–03–6
96	piperophos	$C_{14}H_{28}NO_3PS_2$	24151–93–7
97	pirimicarb	$C_{11}H_{18}N_4O_2$	23103–98–2
98	pirimiphos–ethyl	$C_{13}H_{24}N_3O_3PS$	23505–41–1
99	pirimiphos–methyl	$C_{11}H_{20}N_3O_3PS$	29232–93–7
100	pretilachlor	$C_{17}H_{26}ClNO_2$	51218–49–6
101	prochloraz	$C_{15}H_{16}Cl_3N_3O_2$	67747–09–5
102	profenofos	$C_{11}H_{15}BrClO_3PS$	41198–08–7
103	propamocarb	$C_9H_{20}N_2O_2$	24579–73–5
104	propanil	$C_9H_9Cl_2NO$	709–98–8
105	propaphos	$C_{13}H_{21}O_4PS$	7292–16–2
106	propargite	$C_{19}H_{26}O_4S$	2312–35–8
107	propetamphos	$C_{10}H_{20}NO_4PS$	31218–83–4
108	propiconazole	$C_{15}H_{17}Cl_2N_3O_2$	60207–90–1
109	propoxur	$C_{11}H_{15}NO_3$	114–26–1
110	pyraclostrobin	$C_{19}H_{18}ClN_3O_4$	175013–18–0
111	pyrazophos	$C_{14}H_{20}N_3O_5PS$	13457–18–6
112	pyridaben	$C_{19}H_{25}ClN_2OS$	96489–71–3
113	pyrifenox	$C_{14}H_{12}Cl_2N_2O$	88283–41–4
114	quinalphos	$C_{12}H_{15}N_2O_3PS$	13593–03–8
115	sulfotep	$C_8H_{20}O_5P_2S_2$	3689–24–5
116	tau–fluvalinate	$C_{26}H_{22}ClF_3N_2O_3$	102851–06–9
117	tebuconazole	$C_{16}H_{22}ClN_3O$	107534–96–3
118	terbufos	$C_9H_{21}O_2PS_3$	13071–79–9
119	terbufos sulfone	$C_9H_{21}O_4PS_3$	56070–16–7
120	terbufos sulfoxide	$C_9H_{21}O_3PS_3$	10548–10–4
121	tetrachlorvinphos	$C_{10}H_9Cl_4O_4P$	961–11–5
122	tetramethrin	$C_{19}H_{25}NO_4$	7696–12–0
123	triadimefon	$C_{14}H_{16}ClN_3O_2$	43121–43–3

Table A.1 （continued）

No.	Compound Name	Molecular formula	CAS Number
124	triadimenol	$C_{14}H_{18}ClN_3O_2$	55219-65-3
125	triazophos	$C_{12}H_{16}N_3O_3PS$	24017-47-8
126	tricyclazole	$C_9H_7N_3S$	41814-78-2
127	vamidothion	$C_8H_{18}NO_4PS_2$	2275-23-2
128	aclonifen	$C_{12}H_9ClN_2O_3$	74070-46-5
129	allidochlor	$C_8H_{12}ClNO$	93-71-0
130	ametryn	$C_9H_{17}N_5S$	834-12-8
131	aminocarb	$C_{11}H_{16}N_2O_2$	2032-59-9
132	anilofos	$C_{13}H_{19}ClNO_3PS_2$	64249-01-0
133	atrazine-desethyl	$C_6H_{10}ClN_5$	6190-65-4
134	aziprotryne	$C_7H_{11}N_7S$	4658-28-0
135	benalaxyl	$C_{20}H_{23}NO_3$	71626-11-4
136	bendiocarb	$C_{11}H_{13}NO_4$	22781-23-3
137	benodanil	$C_{13}H_{10}INO$	15310-01-7
138	benoxacor	$C_{11}H_{11}Cl_2NO_2$	98730-04-2
139	benzoylprop-ethyl	$C_{18}H_{17}Cl_2NO_3$	22212-56-2
140	bitertanol	$C_{20}H_{23}N_3O_2$	55179-31-2
141	boscalid	$C_{18}H_{12}Cl_2N_2O$	188425-85-6
142	bromacil	$C_9H_{13}BrN_2O_2$	314-40-9
143	bromuconazole	$C_{13}H_{12}BrCl_2N_3O$	116255-48-2
144	bupirimate	$C_{13}H_{24}N_4O_3S$	41483-43-6
145	butafenacil	$C_{20}H_{18}ClF_3N_2O_6$	134605-64-4
146	carboxin	$C_{12}H_{13}NO_2S$	5234-68-4
147	chlordimeform	$C_{10}H_{13}ClN_2$	6164-98-3
148	chloridazon	$C_{10}H_8ClN_3O$	1698-60-8
149	chlorsulfuron	$C_{12}H_{12}ClN_5O_4S$	64902-72-3
150	clomazone	$C_{12}H_{14}ClNO_2$	81777-89-1
151	cyanazine	$C_9H_{13}ClN_6$	21725-46-2
152	cycloate	$C_{11}H_{21}NOS$	1134-23-2
153	cycluron	$C_{11}H_{22}N_2O$	2163-69-1
154	cyflufenamid	$C_{20}H_{17}F_5N_2O_2$	180409-60-3
155	cyproconazole	$C_{15}H_{18}ClN_3O$	94361-06-5
156	cyromazine	$C_6H_{10}N_6$	66215-27-8
157	diethyltoluamide	$C_{12}H_{17}NO$	134-62-3
158	diazinon	$C_{12}H_{21}N_2O_3PS$	333-41-5
159	dichlormid	$C_8H_{11}Cl_2NO$	37764-25-3
160	diclofop-methyl	$C_{16}H_{14}Cl_2O_4$	51338-27-3
161	difenoconazole	$C_{19}H_{17}Cl_2N_3O_3$	119446-68-3
162	difenoxuron	$C_{16}H_{18}N_2O_3$	14214-32-5
163	dimethachlor	$C_{13}H_{18}ClNO_2$	50563-36-5
164	dimethametryn	$C_{11}H_{21}N_5S$	22936-75-0
165	dimethenamid	$C_{12}H_{18}ClNO_2S$	87674-68-8

Table A.1 （continued）

No.	Compound Name	Molecular formula	CAS Number
166	dimethomorph	$C_{21}H_{22}ClNO_4$	110488–70–5
167	epoxiconazole	$C_{17}H_{13}ClFN_3O$	133855–98–8
168	etaconazole	$C_{14}H_{15}Cl_2N_3O_2$	60207–93–4
169	ethofumesate	$C_{13}H_{18}O_5S$	26225–79–6
170	ethoxyquin	$C_{14}H_{19}NO$	91–53–2
171	etofenprox	$C_{25}H_{28}O_3$	80844–07–1
172	etoxazole	$C_{21}H_{23}F_2NO_2$	153233–91–1
173	fenamidone	$C_{17}H_{17}N_3OS$	161326–34–7
174	fenazaquin	$C_{20}H_{22}N_2O$	120928–09–8
175	fenpiclonil	$C_{11}H_6Cl_2N_2$	74738–17–3
176	fenpropidin	$C_{19}H_{31}N$	67306–00–7
177	fenpropimorph	$C_{20}H_{33}NO$	67564–91–4
178	fenuron	$C_9H_{12}N_2O$	101–42–8
179	flamprop–isopropyl	$C_{19}H_{19}ClFNO_3$	52756–22–6
180	fluazifop–p–butyl	$C_{15}H_{12}F_3NO_4$	69335–91–7
181	fluazifop–butyl	$C_{19}H_{20}F_3NO_4$	69806–50–4
182	flufenacet	$C_{14}H_{13}F_4N_3O_2S$	142459–58–3
183	flufenoxuron	$C_{21}H_{11}ClF_6N_2O_3$	101463–69–8
184	flumioxazin	$C_{19}H_{15}FN_2O_4$	103361–09–7
185	fluopyram	$C_{16}H_{11}ClF_6N_2O$	658066–35–4
186	fluoroglycofen–ethyl	$C_{18}H_{13}ClF_3NO_7$	77501–90–7
187	fluquinconazole	$C_{16}H_8Cl_2FN_5O$	136426–54–5
188	flurochloridone	$C_{12}H_{10}Cl_2F_3NO$	61213–25–0
189	fluxapyroxad	$C_{18}H_{12}F_5N_3O$	907204–31–3
190	furalaxyl	$C_{17}H_{19}NO_4$	57646–30–7
191	hexazinone	$C_{12}H_{20}N_4O_2$	51235–04–2
192	imazamethabenz–methyl	$C_{16}H_{20}N_2O_3$	81405–85–8
193	isocarbamide	$C_8H_{15}N_3O_2$	30979–48–7
194	isomethiozin	$C_{12}H_{20}N_4OS$	57052–04–7
195	isoprocarb	$C_{11}H_{15}NO_2$	2631–40–5
196	isopropalin	$C_{15}H_{23}N_3O_4$	33820–53–0
197	isoprothiolane	$C_{12}H_{18}O_4S_2$	50512–35–1
198	isoproturon	$C_{12}H_{18}N_2O$	34123–59–6
199	isoxadifen–ethyl	$C_{18}H_{17}NO_3$	163520–33–0
200	mefenacet	$C_{16}H_{14}N_2O_2S$	73250–68–7
201	mefenpyr–diethyl	$C_{16}H_{18}Cl_2N_2O_4$	135590–91–9
202	mepanipyrim	$C_{14}H_{13}N_3$	110235–47–7
203	mepronil	$C_{17}H_{19}NO_2$	55814–41–0
204	metalaxyl	$C_{15}H_{21}NO_4$	57837–19–1
205	metamitron	$C_{10}H_{10}N_4O$	41394–05–2
206	metazachlor	$C_{14}H_{16}ClN_3O$	67129–08–2
207	metconazole	$C_{17}H_{22}ClN_3O$	125116–23–6

Table A.1 （continued）

No.	Compound Name	Molecular formula	CAS Number
208	fipronil	$C_{12}H_4Cl_2F_6N_4OS$	120068–37–3
209	fipronil sulfone	$C_{12}H_4Cl_2F_6N_4O_2S$	120068–36–2
210	fipronil sulfoxide	$C_{12}H_4Cl_2F_6N_4S$	120067–83–6
211	fipronil desulfinyl	$C_{12}H_4Cl_2F_6N_4$	205650–65–3
212	flonicamid	$C_9H_6F_3N_3O$	158062–67–0
213	hexaflumuron	$C_{16}H_8Cl_2F_6N_2O_3$	86479–06–3
214	isoxaflutole	$C_{15}H_{12}F_3NO_4S$	141112–29–0
215	methabenzthiazuron	$C_{10}H_{11}N_3OS$	18691–97–9
216	methfuroxam	$C_{14}H_{15}NO_2$	28730–17–8
217	methoprotryne	$C_{11}H_{21}N_5OS$	841–06–5
218	metribuzin	$C_8H_{14}N_4OS$	21087–64–9
219	molinate	$C_9H_{17}NOS$	2212–67–1
220	monalide	$C_{13}H_{18}ClNO$	7287–36–7
221	monolinuron	$C_9H_{11}ClN_2O_2$	1746–81–2
222	myclobutanil	$C_{15}H_{17}ClN_4$	88671–89–0
223	norflurazon	$C_{12}H_9ClF_3N_3O$	27314–13–2
224	novaluron	$C_{17}H_9ClF_8N_2O_4$	116714–46–6
225	nuarimol	$C_{17}H_{12}ClFN_2O$	63284–71–9
226	ofurace	$C_{14}H_{16}ClNO_3$	58810–48–3
227	orbencarb	$C_{12}H_{16}ClNOS$	34622–58–7
228	oxabetrinil	$C_{12}H_{12}N_2O_3$	74782–23–3
229	oxadiazon	$C_{15}H_{18}Cl_2N_2O_3$	19666–30–9
230	oxadixyl	$C_{14}H_{18}N_2O_4$	77732–09–3
231	oxycarboxin	$C_{12}H_{13}NO_4S$	5259–88–1
232	propisochlor	$C_{15}H_{22}ClNO_2$	86763–47–5
233	propyzamide	$C_{12}H_{11}Cl_2NO$	23950–58–5
234	prosulfocarb	$C_{14}H_{21}NOS$	52888–80–9
235	pyroquilon	$C_{11}H_{11}NO$	57369–32–1
236	quizalofop	$C_{17}H_{13}ClN_2O_4$	76578–12–6
237	quizalofop–ethyl	$C_{19}H_{17}ClN_2O_4$	76578–14–8
238	rabenzazole	$C_{12}H_{12}N_4$	40341–04–6
239	resmethrin	$C_{22}H_{26}O_3$	10453–86–8
240	spirodiclofen	$C_{21}H_{24}Cl_2O_4$	148477–71–8
241	spiromesifen	$C_{23}H_{30}O_4$	283594–90–1
242	spirotetramat	$C_{21}H_{27}NO_5$	203313–25–1
243	spirotetramate–enol–glukosid	$C_{24}H_{33}NO_8$	1172614–86–6
244	spirotetramate–keto–hydroxy	$C_{18}H_{23}NO_4$	1172134–11–0
245	spirotetramate–mono–hydroxy	$C_{18}H_{25}NO_3$	1172134–12–1
246	spiroxamine	$C_{18}H_{35}NO_2$	118134–30–8
247	tebufenpyrad	$C_{18}H_{24}ClN_3O$	119168–77–3
248	tebupirimfos	$C_{13}H_{23}N_2O_3PS$	96182–53–5
249	tebutam	$C_{15}H_{23}NO$	35256–85–0

Table A.1 （continued）

No.	Compound Name	Molecular formula	CAS Number
250	tebuthiuron	$C_9H_{16}N_4OS$	34014–18–1
251	terbumeton	$C_{10}H_{19}N_5O$	33693–04–8
252	terbucarb	$C_{17}H_{27}NO_2$	1918–11–2
253	terbutryn	$C_{10}H_{19}N_5S$	886–50–0
254	tetraconazole	$C_{13}H_{11}Cl_2F_4N_3O$	112281–77–3
255	trietazine	$C_9H_{16}ClN_5$	1912–26–1
256	trifloxystrobin	$C_{20}H_{19}F_3N_2O_4$	141517–21–7
257	triflumizole	$C_{15}H_{15}ClF_3N_3O$	68694–11–1
258	triticonazole	$C_{17}H_{20}ClN_3O$	131983–72–7
259	uniconazole	$C_{15}H_{18}ClN_3O$	83657–22–1
260	vernolate	$C_{10}H_{21}NOS$	1929–77–7
261	zoxamide	$C_{14}H_{16}Cl_3NO_2$	156052–68–5
262	teflubenzuron	$C_{14}H_6Cl_2F_4N_2O_2$	83121–18–0
263	dioxacarb	$C_{11}H_{13}NO_4$	6988–21–2
264	diphenamid	$C_{16}H_{17}NO$	957–51–7
265	dipropetryn	$C_{11}H_{21}N_5S$	4147–51–7
266	dithiopyr	$C_{15}H_{16}F_5NO_2S_2$	97886–45–8
267	dodemorph	$C_{18}H_{35}NO$	1593–77–7
268	fenhexamid	$C_{14}H_{17}Cl_2NO_2$	126833–17–8
269	fenothiocarb	$C_{13}H_{19}NO_2S$	62850–32–2
270	fenoxaprop–ethyl	$C_{18}H_{16}ClNO_5$	66441–23–4
271	fenoxycarb	$C_{17}H_{19}NO_4$	79127–80–3
272	fluroxypyr	$C_7H_5Cl_2FN_2O_3$	69377–81–7
273	fluroxypyr–meptyl	$C_{15}H_{21}Cl_2FN_2O_3$	81406–37–3
274	flusilazole	$C_{16}H_{15}F_2N_3Si$	85509–19–9
275	flutolanil	$C_{17}H_{16}F_3NO_2$	66332–96–5
276	flutriafol	$C_{16}H_{13}F_2N_3O$	76674–21–0
277	fuberidazole	$C_{11}H_8N_2O$	3878–19–1
278	furathiocarb	$C_{18}H_{26}N_2O_5S$	65907–30–4
279	furmecyclox	$C_{14}H_{21}NO_3$	60568–05–0
280	haloxyfop	$C_{15}H_{11}ClF_3NO_4$	69806–34–4
281	haloxyfop–P–methyl	$C_{19}H_{19}ClF_3NO_5$	87237–48–7
282	haloxyfop–methyl	$C_{16}H_{13}ClF_3NO_4$	69806–40–2
283	pebulate	$C_{10}H_{21}NOS$	1114–71–2
284	penconazole	$C_{13}H_{15}Cl_2N_3$	66246–88–6
285	picolinafen	$C_{19}H_{12}F_4N_2O_2$	137641–05–5
286	prometryn	$C_{10}H_{19}N_5S$	7287–19–6
287	propachlor	$C_{11}H_{14}ClNO$	1918–16–7
288	propazine	$C_9H_{16}ClN_5$	139–40–2
289	pyriftalid	$C_{15}H_{14}N_2O_4S$	135186–78–6
290	pyrimethanil	$C_{12}H_{13}N_3$	53112–28–0
291	pyriproxyfen	$C_{20}H_{19}NO_3$	95737–68–1

Table A.1 （continued）

No.	Compound Name	Molecular formula	CAS Number
292	quinoclamine	$C_{10}H_6ClNO_2$	2797–51–5
293	quinoxyfen	$C_{15}H_8Cl_2FNO$	124495–18–7
294	secbumeton	$C_{10}H_{19}N_5O$	26259–45–0
295	simazine	$C_7H_{12}ClN_5$	122–34–9
296	simetryn	$C_8H_{15}N_5S$	1014–70–6
297	thiobencarb	$C_{12}H_{16}ClNOS$	28249–77–6
298	tolclofos–methyl	$C_9H_{11}Cl_2O_3PS$	57018–04–9
299	tolfenpyrad	$C_{21}H_{22}ClN_3O_2$	129558–76–5
300	triallate	$C_{10}H_{16}Cl_3NOS$	2303–17–5
301	dinitramine	$C_{11}H_{13}F_3N_4O_4$	29091–05–2
302	albendazole	$C_{12}H_{15}N_3O_2S$	54965–21–8
303	carbendazim	$C_9H_9N_3O_2$	10605–21–7
304	carbetamide	$C_{12}H_{16}N_2O_3$	16118–49–3
305	dimethirimol	$C_{11}H_{19}N_3O$	5221–53–4
306	ethidimuron	$C_7H_{12}N_4O_3S_2$	30043–49–3
307	fenoxanil	$C_{15}H_{18}Cl_2N_2O_2$	115852–48–7
308	fenpyroximate	$C_{24}H_{27}N_3O_4$	134098–61–6
309	flumorph	$C_{21}H_{22}FNO_4$	211867–47–9
310	flurtamone	$C_{18}H_{14}F_3NO_2$	96525–23–4
311	hydramethylnon	$C_{25}H_{24}F_6N_4$	67485–29–4
312	hymexazol	$C_4H_5NO_2$	10004–44–1
313	imazamox	$C_{15}H_{19}N_3O_4$	114311–32–9
314	isoxaben	$C_{18}H_{24}N_2O_4$	82558–50–7
315	methoxyfenozide	$C_{22}H_{28}N_2O_3$	161050–58–4
316	nitenpyram	$C_{11}H_{15}ClN_4O_2$	150824–47–8
317	pyriminobac–methyl	$C_{17}H_{19}N_3O_6$	147411–69–6
318	rotenone	$C_{23}H_{22}O_6$	83–79–4
319	saflufenacil	$C_{17}H_{17}ClF_4N_4O_5S$	372137–35–4
320	sethoxydim	$C_{17}H_{29}NO_3S$	74051–80–2
321	thiabendazole	$C_{10}H_7N_3S$	148–79–8
322	thiamethoxam	$C_8H_{10}ClN_5O_3S$	153719–23–4
323	thiofanox sulfoxide	$C_9H_{18}N_2O_3S$	39184–27–5
324	thiophanate	$C_{14}H_{18}N_4O_4S_2$	23564–06–9
325	trichlorfon	$C_4H_8Cl_3O_4P$	52–68–6
326	daminozide	$C_6H_{12}N_2O_3$	1596–84–5
327	3–hydroxy–carbofuran	$C_{12}H_{15}NO_4$	16655–82–6
328	acetamiprid	$C_{10}H_{11}ClN_4$	135410–20–7
329	aldicarb	$C_7H_{14}N_2O_2S$	116–06–3
330	aldicarb–sulfoxide	$C_7H_{14}N_2O_3S$	1646–87–3
331	aldicarb–sulfone	$C_7H_{14}N_2O_4S$	1646–88–4
332	ametoctradin	$C_{15}H_{25}N_5$	865318–97–4
333	amicarbazone	$C_{10}H_{19}N_5O_2$	129909–90–6

Table A.1 (continued)

No.	Compound Name	Molecular formula	CAS Number
334	amitraz	$C_{19}H_{23}N_3$	33089–61–1
335	abamectin B1a	$C_{48}H_{72}O_{14}$	65195–55–3
336	bensulfuron–methyl	$C_{16}H_{18}N_4O_7S$	83055–99–6
337	carbofuran	$C_{12}H_{15}NO_3$	1563–66–2
338	chlorantraniliprole	$C_{18}H_{14}BrCl_2N_5O_2$	500008–45–7
339	chromafenozide	$C_{24}H_{30}N_2O_3$	143807–66–3
340	clofentezine	$C_{14}H_8Cl_2N_4$	74115–24–5
341	clothianidin	$C_6H_8ClN_5O_2S$	210880–92–5
342	diafenthiuron	$C_{23}H_{32}N_2OS$	80060–09–9
343	diflubenzuron	$C_{14}H_9ClF_2N_2O_2$	35367–38–5
344	dimefox	$C_4H_{12}FN_2OP$	115–26–4
345	dimefuron	$C_{15}H_{19}ClN_4O_3$	34205–21–5
346	dimoxystrobin	$C_{19}H_{22}N_2O_3$	149961–52–4
347	dinotefuran	$C_7H_{14}N_4O_3$	165252–70–0
348	diuron	$C_9H_{10}Cl_2N_2O$	330–54–1
349	emamectin benzoate B1a	$C_{49}H_{75}NO_{13}$	121124–29–6
350	ethametsulfuron–methyl	$C_{15}H_{18}N_6O_6S$	97780–06–8
351	ethiprole	$C_{13}H_9Cl_2F_3N_4OS$	181587–01–9
352	fluometuron	$C_{10}H_{11}F_3N_2O$	2164–17–2
353	fluopicolide	$C_{14}H_8Cl_3F_3N_2O$	239110–15–7
354	fluoxastrobin	$C_{21}H_{16}ClFN_4O_5$	193740–76–0
355	fluthiacet–methyl	$C_{15}H_{15}ClFN_3O_3S_2$	117337–19–6
356	forchlorfenuron	$C_{12}H_{10}ClN_3O$	68157–60–8
357	hexythiazox	$C_{17}H_{21}ClN_2O_2S$	78587–05–0
358	imazapic	$C_{14}H_{17}N_3O_3$	104098–48–8
359	imazapyr	$C_{13}H_{15}N_3O_3$	81334–34–1
360	imazaquin	$C_{17}H_{17}N_3O_3$	81335–37–7
361	imazethapyr	$C_{15}H_{19}N_3O_3$	81335–77–5
362	imidacloprid	$C_9H_{10}ClN_5O_2$	138261–41–3
363	isouron	$C_{10}H_{17}N_3O_2$	55861–78–4
364	mandipropamid	$C_{23}H_{22}ClNO_4$	374726–62–2
365	metosulam	$C_{14}H_{13}Cl_2N_5O_4S$	139528–85–1
366	metoxuron	$C_{10}H_{13}ClN_2O_2$	19937–59–8
367	metrafenone	$C_{19}H_{21}BrO_5$	220899–03–6
368	oxamyl	$C_7H_{13}N_3O_3S$	23135–22–0
369	oxamyl–oxime	$C_5H_{10}N_2O_2S$	30558–43–1
370	phosfolan–methyl	$C_5H_{10}NO_3PS_2$	5120–23–0
371	pinoxaden	$C_{23}H_{32}N_2O_4$	243973–20–8
372	pymetrozine	$C_{10}H_{11}N_5O$	123312–89–0
373	pyrimidifen	$C_{20}H_{28}ClN_3O_2$	105779–78–0
374	sulfentrazone	$C_{11}H_{10}Cl_2F_2N_4O_3S$	122836–35–5
375	tebufenozide	$C_{22}H_{28}N_2O_2$	112410–23–8

Table A.1 (continued)

No.	Compound Name	Molecular formula	CAS Number
376	thiacloprid	$C_{10}H_9ClN_4S$	111988-49-9
377	thifensulfuron-methyl	$C_{12}H_{13}N_5O_6S_2$	79277-27-3
378	thiophanate-methyl	$C_{12}H_{14}N_4O_4S_2$	23564-05-8
379	triflumuron	$C_{15}H_{10}ClF_3N_2O_3$	64628-44-0
380	amisulbrom	$C_{13}H_{13}BrFN_5O_4S_2$	348635-87-0
381	azinphos-methyl	$C_{10}H_{12}N_3O_3PS_2$	86-50-0
382	benazolin-ethyl ester	$C_{11}H_{10}ClNO_3S$	25059-80-7
383	benzofenap	$C_{22}H_{20}Cl_2N_2O_3$	82692-44-2
384	bispyribac-sodium	$C_{19}H_{18}N_4O_8$	125401-75-4
385	bixafen	$C_{18}H_{12}Cl_2F_3N_3O$	581809-46-3
386	bromfenvinphos	$C_{12}H_{14}BrCl_2O_4P$	33399-00-7
387	brompyrazon	$C_{10}H_8BrN_3O$	3042-84-0
388	butoxycarboxim	$C_7H_{14}N_2O_4S$	34681-23-7
389	chlorbromuron	$C_9H_{10}BrClN_2O_2$	13360-45-7
390	chloroxuron	$C_{15}H_{15}ClN_2O_2$	1982-47-4
391	coumatetralyl	$C_{19}H_{16}O_3$	5836-29-3
392	crimidine	$C_7H_{10}ClN_3$	535-89-7
393	fensulfothion	$C_{11}H_{17}O_4PS_2$	115-90-2
394	flamprop-methyl	$C_{17}H_{15}ClFNO_3$	52756-25-9
395	ivermectin	$C_{48}H_{74}O_{14}$	70288-86-7
396	mefluidide	$C_{11}H_{13}F_3N_2O_3S$	53780-34-0
397	metamitron-desamino	$C_{10}H_9N_3O$	36993-94-9
398	nitralin	$C_{13}H_{19}N_3O_6S$	4726-14-1
399	oryzalin	$C_{12}H_{18}N_4O_6S$	19044-88-3
400	oxaziclomefone	$C_{20}H_{19}Cl_2NO_2$	153197-14-9
401	spinosad A	$C_{41}H_{65}NO_{10}$	131929-60-7
402	spinosad D	$C_{42}H_{67}NO_{10}$	131929-63-0
403	sulcotrione	$C_{14}H_{13}ClO_5S$	99105-77-8
404	sulfoxaflor	$C_{10}H_{10}F_3N_3OS$	946578-00-3
405	thidiazuron	$C_9H_8N_4OS$	51707-55-2
406	triazoxide	$C_{10}H_6ClN_5O$	72459-58-6
407	flubendiamide	$C_{23}H_{22}F_7IN_2O_4S$	272451-65-7
408	lufenuron	$C_{17}H_8Cl_2F_8N_2O_3$	103055-07-8
409	warfarin	$C_{19}H_{16}O_4$	81-81-2
410	amidithion	$C_7H_{16}NO_4PS_2$	919-76-6
411	benzoximate	$C_{18}H_{18}ClNO_5$	29104-30-1
412	buturon	$C_{12}H_{13}ClN_2O$	3766-60-7
413	butylate	$C_{11}H_{23}NOS$	2008-41-5
414	cinosulfuron	$C_{15}H_{19}N_5O_7S$	94593-91-6
415	cloquintocet-mexyl	$C_{18}H_{22}ClNO_3$	99607-70-2
416	coumoxystrobin	$C_{26}H_{28}O_6$	850881-70-8
417	cumyluron	$C_{17}H_{19}ClN_2O$	99485-76-4

Table A.1 （continued）

No.	Compound Name	Molecular formula	CAS Number
418	cyantraniliprole	$C_{19}H_{14}BrClN_6O_2$	736994-63-1
419	cyclosulfamuron	$C_{17}H_{19}N_5O_6S$	136849-15-5
420	cythioate	$C_8H_{12}NO_5PS_2$	115-93-5
421	prothioconazole- desthio	$C_{14}H_{15}Cl_2N_3O$	120983-64-4
422	dialifos	$C_{14}H_{17}ClNO_4PS_2$	10311-84-9
423	dimepiperate	$C_{15}H_{21}NOS$	61432-55-1
424	doramectin	$C_{50}H_{74}O_{14}$	117704-25-3
425	ethaboxam	$C_{14}H_{16}N_4OS_2$	162650-77-3
426	ethiolate	$C_7H_{15}NOS$	2941-55-1
427	ethoxysulfuron	$C_{15}H_{18}N_4O_7S$	126801-58-9
428	etobenzanid	$C_{16}H_{15}Cl_2NO_3$	79540-50-4
429	fenaminstrobin	$C_{21}H_{21}Cl_2N_3O_3$	366815-39-6
430	fluridone	$C_{19}H_{14}F_3NO$	59756-60-4
431	isopyrazam	$C_{20}H_{23}F_2N_3O$	881685-58-1
432	kadethrin	$C_{23}H_{24}O_4S$	58769-20-3
433	lactofen	$C_{19}H_{15}ClF_3NO_7$	77501-63-4
434	lenacil	$C_{13}H_{18}N_2O_2$	2164-08-1
435	mecarbam	$C_{10}H_{20}NO_5PS_2$	2595-54-2
436	mesosulfuron-methyl	$C_{17}H_{21}N_5O_9S_2$	208465-21-8
437	penthiopyrad	$C_{16}H_{20}F_3N_3OS$	183675-82-3
438	phenothrin	$C_{23}H_{26}O_3$	26002-80-2
439	pyraclonil	$C_{15}H_{15}ClN_6$	158353-15-2
440	pyroxsulam	$C_{14}H_{13}F_3N_6O_5S$	422556-08-9
441	yishijing	$C_{18}H_{20}N_2O_2$	112225-87-3
442	simeconazole	$C_{14}H_{20}FN_3OSi$	149508-90-7
443	amidosulfuron	$C_9H_{15}N_5O_7S_2$	120923-37-7
444	bensulide	$C_{14}H_{24}NO_4PS_3$	741-58-2
445	bromfenvinphos-methyl	$C_{10}H_{10}BrCl_2O_4P$	13104-21-7
446	carpropamid	$C_{15}H_{18}Cl_3NO$	104030-54-8
447	chlorfenvinphos	$C_{12}H_{14}Cl_3O_4P$	470-90-6
448	chlorobenzuron	$C_{14}H_{10}Cl_2N_2O_2$	57160-47-1
449	cinidon-ethyl	$C_{19}H_{17}Cl_2NO_4$	142891-20-1
450	crufomate	$C_{12}H_{19}ClNO_3P$	299-86-5
451	dazomet	$C_5H_{10}N_2S_2$	533-74-4
452	demeton-methyl	$C_6H_{15}O_3PS_2$	919-86-8
453	desmetryn	$C_8H_{15}N_5S$	1014-69-3
454	diethyl aminoethyl hexanoate	$C_{12}H_{25}NO_2$	10369-83-2
455	enestroburin	$C_{22}H_{22}ClNO_4$	238410-11-2
456	fenpyrazamine	$C_{17}H_{21}N_3O_2S$	473798-59-3
457	hydroprene	$C_{17}H_{30}O_2$	36557-30-9
458	iprodione	$C_{13}H_{13}Cl_2N_3O_3$	36734-19-7
459	mesotrione	$C_{14}H_{13}NO_7S$	104206-82-8

Table A.1 （continued）

No.	Compound Name	Molecular formula	CAS Number
460	metobromuron	$C_9H_{11}BrN_2O_2$	3060–89–7
461	metsulfuron–methyl	$C_{14}H_{15}N_5O_6S$	74223–64–6
462	oxasulfuron	$C_{17}H_{18}N_4O_6S$	144651–06–9
463	pentanochlor	$C_{13}H_{18}ClNO$	2307–68–8
464	pethoxamid	$C_{16}H_{22}ClNO_2$	106700–29–2
465	prothioconazole	$C_{14}H_{15}Cl_2N_3OS$	178928–70–6
466	pyraflufen–ethyl	$C_{15}H_{13}Cl_2F_3N_2O_4$	129630–19–9
467	pyrametostrobin	$C_{21}H_{23}N_3O_4$	915410–70–7
468	sebuthylazine	$C_9H_{16}ClN_5$	7286–69–3
469	sulprofos	$C_{12}H_{19}O_2PS_3$	35400–43–2
470	thiofanox sulfone	$C_9H_{18}N_2O_4S$	39184–59–3
471	topramezone	$C_{16}H_{17}N_3O_5S$	210631–68–8
472	triamiphos	$C_{12}H_{19}N_6OP$	1031–47–6
473	triflusulfuron–methyl	$C_{17}H_{19}F_3N_6O_6S$	126535–15–7
474	tritosulfuron	$C_{13}H_9F_6N_5O_4S$	142469–14–5
475	flufiprole	$C_{16}H_{10}Cl_2F_6N_4OS$	704886–18–0
476	metaflumizone	$C_{24}H_{16}F_6N_4O_2$	139968–49–3
477	bensultap	$C_{17}H_{21}NO_4S_4$	17606–31–4
478	benzovindiflupyr	$C_{18}H_{15}Cl_2F_2N_3O$	1072957–71–1
479	chlorimuron–ethyl	$C_{15}H_{15}ClN_4O_6S$	90982–32–4
480	clodinafop–propargyl	$C_{17}H_{13}ClFNO_4$	105512–06–9
481	cloransulam–methyl	$C_{15}H_{13}ClFN_5O_5S$	147150–35–4
482	cyazofamid	$C_{13}H_{13}ClN_4O_2S$	120116–88–3
483	diclosulam	$C_{13}H_{10}Cl_2FN_5O_3S$	145701–21–9
484	DMST	$C_9H_{14}N_2O_2S$	66840–71–9
485	drazoxolon	$C_{10}H_8ClN_3O_2$	5707–69–7
486	florasulam	$C_{12}H_8F_3N_5O_3S$	145701–23–1
487	flucarbazone–sodium	$C_{12}H_{10}F_3N_4NaO_6S$	181274–17–9
488	flucetosulfuron	$C_{18}H_{22}FN_5O_8S$	412928–75–7
489	flumetsulam	$C_{12}H_9F_2N_5O_2S$	98967–40–9
490	foramsulfuron	$C_{17}H_{20}N_6O_7S$	173159–57–4
491	halofenozide	$C_{18}H_{19}ClN_2O_2$	112226–61–6
492	imibenconazole	$C_{17}H_{13}Cl_3N_4S$	86598–92–7
493	ipconazole	$C_{18}H_{24}ClN_3O$	125225–28–7
494	monuron	$C_9H_{11}ClN_2O$	150–68–5
495	oxadiargyl	$C_{15}H_{14}Cl_2N_2O_3$	39807–15–3
496	propaquizafop	$C_{22}H_{22}ClN_3O_5$	111479–05–1
497	pyraoxystrobin	$C_{22}H_{21}ClN_2O_4$	862588–11–2
498	pyrazoxyfen	$C_{20}H_{16}Cl_2N_2O_3$	71561–11–0
499	quinmerac	$C_{11}H_8ClNO_2$	90717–03–6
500	sedaxane	$C_{18}H_{19}F_2N_3O$	874967–67–6
501	siduron	$C_{14}H_{20}N_2O$	1982–49–6

Table A.1 (continued)

No.	Compound Name	Molecular formula	CAS Number
502	silthiofam	$C_{13}H_{21}NOSSi$	175217-20-6
503	sulfosulfuron	$C_{16}H_{18}N_6O_7S_2$	141776-32-1
504	temephos	$C_{16}H_{20}O_6P_2S_3$	3383-96-8
505	thenylchlor	$C_{16}H_{18}ClNO_2S$	96491-05-3
506	thiodicarb	$C_{10}H_{18}N_4O_4S_3$	59669-26-0
507	triasulfuron	$C_{14}H_{16}ClN_5O_5S$	82097-50-5
508	triforine	$C_{10}H_{14}Cl_6N_4O_2$	26644-46-2
509	halosulfuron-methyl	$C_{13}H_{15}ClN_6O_7S$	100784-20-1
510	prohexadione	$C_{10}H_{12}O_5$	88805-35-0
511	cymoxanil	$C_7H_{10}N_4O_3$	57966-95-7
512	diflufenican	$C_{19}H_{11}F_5N_2O_2$	83164-33-4
513	famoxadone	$C_{22}H_{18}N_2O_4$	131807-57-3
514	fentrazamide	$C_{16}H_{20}ClN_5O_2$	158237-07-1
515	fluacrypyrim	$C_{20}H_{21}F_3N_2O_5$	229977-93-9
516	fluazuron	$C_{20}H_{10}Cl_2F_5N_3O_3$	86811-58-7
517	flubenzimine	$C_{17}H_{10}F_6N_4S$	37893-02-0
518	flumetralin	$C_{16}H_{12}ClF_4N_3O_4$	62924-70-3
519	flumiclorac-pentyl	$C_{21}H_{23}ClFNO_5$	87546-18-7
520	imidaclothiz	$C_7H_8ClN_5O_2S$	105843-36-5
521	iodosulfuron-methyl	$C_{14}H_{14}IN_5O_6S$	144550-36-7
522	metamifop	$C_{23}H_{18}ClFN_2O_4$	256412-89-2
523	penflufen	$C_{18}H_{24}FN_3O$	494793-67-8
524	penoxsulam	$C_{16}H_{14}F_5N_5O_5S$	219714-96-2
525	primisulfuron-methyl	$C_{15}H_{12}F_4N_4O_7S$	86209-51-0
526	proquinazid	$C_{14}H_{17}IN_2O_2$	189278-12-4
527	pyraclofos	$C_{14}H_{18}ClN_2O_3PS$	89784-60-1
528	pyrazosulfuron-ethyl	$C_{14}H_{18}N_6O_7S$	93697-74-6
529	pyribenzoxim	$C_{32}H_{27}N_5O_8$	168088-61-7
530	pyributicarb	$C_{18}H_{22}N_2O_2S$	88678-67-5
531	pyridaphenthion	$C_{14}H_{17}N_2O_4PS$	119-12-0
532	pyrisoxazole	$C_{16}H_{17}ClN_2O$	847749-37-5
533	quinclorac	$C_{10}H_5Cl_2NO_2$	84087-01-4
534	thifluzamide	$C_{13}H_6Br_2F_6N_2O_2S$	130000-40-7
535	thionazin	$C_8H_{13}N_2O_3PS$	297-97-2
536	tifatol	$C_{12}H_{14}N_2S$	61676-87-7
537	trinexapac-ethyl	$C_{13}H_{16}O_5$	95266-40-3
538	6-hydroxy-bentazone	$C_{10}H_{12}N_2O_4S$	60374-42-7
539	bentazone	$C_{10}H_{12}N_2O_3S$	25057-89-0
540	fomesafen	$C_{15}H_{10}ClF_3N_2O_6S$	72178-02-0

Appendix B
(Informative reference)
conditions of mass spectrometry[1)]

B.1 Reference conditions of mass spectrometry:

a) Ion source: electrospray ion source (ESI);

b) Scanning polarity: positive and negative;

c) Nebulizer gas, Dry gas and Seath Gas: nitrogen;

d) Dry Gas Temperature: 280 ℃;

e) Dry Gas Flow rate: 9 L/min;

f) Nebulizer pressure: 40 psi;

g) Nozzle Voltage: 500 V (positive mode), −1500 V (negative mode);

h) Capillary Voltage: 4000 V;

i) MS scan mode: 100–1000 m/z;

j) Target MS/MS mode: 50–1000 m/z, collision energy (CE): 10, 20, 40 V;

k) Reference retention time, scanning mode, parent ion and typical product ions of 540 pesticides are listed in Table B.1.

1) Non-commercial statement: Referenced conditions in Appendix B were obtained from Agilent 6545 LC-QTOF. The equipment and the type involved in this standard method are not related to commercial purposes. .Standard users are encouraged to try instruments produced by different mansufacturers.

Table B.1 Reference retention time, scanning mode, parent ion and typical product ions of 540 pesticides

No.	Compound Name	Rention Time (min)	Polarity	Molecular Ion Adduct Form	Parent Ion (m/z)	Typical Product Ions (m/z)		
1	acephate	4.30	Positive	$[M+H]^+$	184.0192	142.9926	128.9770	112.0158
2	acetochlor	10.47	Positive	$[M+H]^+$	270.1255	238.0993	224.0837	148.1121
3	allethrin	12.81, 13.05	Positive	$[M+H]^+$	303.1955	123.1168	135.0804	107.0855
4	atrazine	8.20	Positive	$[M+H]^+$	216.1010	174.0541	96.0556	104.0010
5	azamethiphos	6.88	Positive	$[M+H]^+$	324.9809	182.9956	127.9898	139.0058
6	azinphos-ethyl	10.14	Positive	$[M+H]^+$	346.0443	114.9613	137.0059	142.9385
7	azoxystrobin	8.73	Positive	$[M+H]^+$	404.1241	372.0979	344.1030	329.0795
8	benfuracarb	12.55	Positive	$[M+H]^+$	411.1948	158.1176	195.0472	252.0691
9	bifenazate	9.85	Positive	$[M+H]^+$	301.1547	170.0965	198.0913	148.0757
10	buprofezin	12.95	Positive	$[M+H]^+$	306.1635	201.1056	116.0528	145.0430
11	butachlor	13.07	Positive	$[M+H]^+$	312.1725	252.1150	176.1434	147.1043
12	butralin	13.89	Positive	$[M+H]^+$	296.1605	240.0979	222.0873	208.0717
13	cadusafos	12.03	Positive	$[M+H]^+$	271.0950	158.9698	215.0324	130.9385
14	carbaryl	7.41	Positive	$[M+H]^+$	202.0863	145.0648	117.0699	103.0542
15	carbophenothion	13.81	Positive	$[M+H]^+$	342.9811	156.9873	170.9698	142.9385
16	carbosulfan	14.91	Positive	$[M+H]^+$	381.2206	160.1155	118.0685	222.1125
17	chlorfluazuron	13.96	Positive	$[M+H]^+$	539.9702	382.9363	141.0147	186.9586
18	chlorpyrifos	13.43	Positive	$[M+H]^+$	349.9336	197.9275	114.9614	293.8710
19	chlorpyrifos-methyl	12.07	Positive	$[M+H]^+$	321.9023	142.9926	289.8760	127.0156
20	chlorotoluron	7.94	Positive	$[M+H]^+$	213.0789	72.0444	140.0262	168.0211
21	crotoxyphos	9.35	Positive	$[M+H]^+$	315.0992	105.0103	123.2165	
22	coumaphos	11.24	Positive	$[M+H]^+$	363.0217	226.9926	306.9591	334.9904
23	disulfoton	10.98	Positive	$[M+H]^+$	275.0358	89.0419	132.0240	

Table B.1 （continued）

No.	Compound Name	Rention Time(min)	Polarity	Molecular Ion Adduct Form	Parent Ion(m/z)	Typical Product Ions（m/z）		
24	cyprodinil	11.13	Positive	$[M+H]^+$	226.1339	93.0573	91.0542	118.0525
25	deltamethrin	14.11	Positive	$[M+NH_4]^+$	521.0070	503.9804	278.9015	199.0754
26	dementon	8.90	Positive	$[M+H]^+$	259.0586	259.0586	89.0420	61.0107
27	demeton-methyl sulfone	5.15	Positive	$[M+H]^+$	263.0171	127.0155	142.9926	169.0083
28	demeton-methyl sulfoxide	4.97	Positive	$[M+H]^+$	247.0222	169.0083	105.0369	142.9926
29	dichlofenthion	13.25	Positive	$[M+H]^+$	314.9773	258.9147	286.9460	114.9614
30	dichlorvos	7.05	Positive	$[M+H]^+$	220.9532	127.0155	78.9945	144.9816
31	dicrotophos	5.43	Positive	$[M+H]^+$	238.0839	112.0756	127.0154	72.0443
32	diethofencarb	9.01	Positive	$[M+H]^+$	268.1543	180.1019	226.1074	152.0706
33	dimethoate	5.93	Positive	$[M+H]^+$	230.0069	198.9647	170.9698	88.0215
34	diniconazole	11.91	Positive	$[M+H]^+$	326.0821	70.0400	158.9763	172.9555
35	disulfoton-sulfone	7.88	Positive	$[M+H]^+$	307.0256	307.0256	171.0239	260.9837
36	disulfoton-sulfoxide	7.77	Positive	$[M+H]^+$	291.0307	184.9854	213.0167	171.0239
37	ditalimfos	10.18	Positive	$[M+H]^+$	300.0454	148.0393	243.9828	272.0141
38	edifenphos	11.07	Positive	$[M+H]^+$	311.0324	111.0263	172.9821	283.0011
39	ethion	13.10	Positive	$[M+H]^+$	384.9949	199.0011	170.9698	215.0324
40	ethoprophos	10.35	Positive	$[M+H]^+$	243.0637	172.9854	130.9385	138.9977
41	fenamiphos	10.61	Positive	$[M+H]^+$	304.1131	217.0083	234.0348	276.0818
42	fenamiphos sulfone	7.09	Positive	$[M+H]^+$	336.1029	266.0247	308.0716	188.0471
43	fenamiphos sulfoxide	6.95	Positive	$[M+H]^+$	320.1080	292.0767	171.0474	250.0297
44	fenarimol	9.53	Positive	$[M+H]^+$	331.0399	81.0447	268.0524	138.9945
45	fenbuconazole	10.42	Positive	$[M+H]^+$	337.1215	125.0153	194.0480	91.0542
46	fenobucarb	9.01	Positive	$[M+H]^+$	208.1332	95.0491	152.0706	151.1117
47	fenpropathrin	13.76	Positive	$[M+NH_4]^+$	367.2016	125.0961	208.0757	350.1751

Table B.1 （continued）

No.	Compound Name	Rention Time(min)	Polarity	Molecular Ion Adduct Form	Parent Ion(m/z)	Typical Product Ions（m/z）		
48	fenthion	11.17	Positive	$[M+H]^+$	279.0273	149.0233	169.0140	105.0699
49	fenthion oxon	8.63	Positive	$[M+H]^+$	263.0501	185.9865	137.0420	231.0293
50	fenthion oxon sulfone	5.85	Positive	$[M+H]^+$	295.0400	252.8010	175.2300	
51	fenthion oxon sulfoxide	5.75	Positive	$[M+H]^+$	279.0451	104.0621	149.0185	217.0624
52	fenthion sulfone	7.34	Positive	$[M+H]^+$	311.0171	142.9926	128.0233	200.0055
53	fenthion sulfoxide	7.15	Positive	$[M+H]^+$	295.0222	279.9987	278.0195	127.0155
54	fonofos	11.35	Positive	$[M+H]^+$	247.0375	137.0184	108.9871	126.9977
55	fosthiazate	7.71	Positive	$[M+H]^+$	284.0538	227.9912	104.0165	199.9599
56	heptenophos	8.33	Positive	$[M+H]^+$	251.0234	127.0155	125.0153	89.0386
57	hexaconazole	11.54	Positive	$[M+H]^+$	314.0821	70.0413	158.9763	184.9919
58	imazalil	8.09	Positive	$[M+H]^+$	297.0556	158.9763	69.0447	172.9919
59	indoxacarb	11.94	Positive	$[M+H]^+$	528.0780	218.0423	249.0425	150.0105
60	iprobenfos	10.85	Positive	$[M+H]^+$	289.1022	91.0542	205.0083	65.0386
61	iprovalicarb	9.93，10.03	Positive	$[M+H]^+$	321.2173	119.0855	203.1390	186.1125
62	isazofos	9.91	Positive	$[M+H]^+$	314.0490	162.0662	114.9615	119.0607
63	isocarbophos	8.21	Positive	$[M+Na]^+$	312.0430	270.1580	236.0114	
64	isofenphos	11.64	Positive	$[M+H]^+$	346.1236	216.9719	245.0032	198.9977
65	isofenphos-methyl	10.94	Positive	$[M+H]^+$	332.1080	121.0284	230.9875	216.9719
66	isofenphos oxon	9.88	Positive	$[M+H]^+$	330.1465	200.9947	121.0284	
67	isoxathion	11.48	Positive	$[M+H]^+$	314.0610	105.0334	96.9507	77.0388
68	kresoxim-methyl	10.98	Positive	$[M+H]^+$	314.1387	222.0913	267.1016	235.0754
69	linuron	9.17	Positive	$[M+H]^+$	249.0192	159.9715	182.0241	160.9794
70	malaoxon	7.06	Positive	$[M+H]^+$	315.0662	127.0390	99.0077	142.9926
71	malathion	9.53	Positive	$[M+H]^+$	331.0433	285.0015	127.0390	331.0433
72	mephosfolan	6.90	Positive	$[M+H]^+$	270.0382	167.9879	139.9566	75.0263

Table B.1 （continued）

No.	Compound Name	Rention Time（min）	Polarity	Molecular Ion Adduct Form	Parent Ion（m/z）	Typical Product Ions（m/z）		
73	methamidophos	3.91	Positive	$[M+H]^+$	142.0086	124.9821	78.9943	109.9824
74	methidathion	8.49	Positive	$[M+H]^+$	302.9691	145.0066	85.0396	71.0240
75	metolachlor	10.57	Positive	$[M+H]^+$	284.1412	252.1150	176.1434	212.0837
76	metolcarb	6.81	Positive	$[M+H]^+$	166.0863	109.0648	94.0410	91.0542
77	mevinphos	5.69	Positive	$[M+H]^+$	225.0523	193.0260	127.0155	99.0441
78	monocrotophos	5.20	Positive	$[M+H]^+$	224.0682	127.0155	98.0600	193.0260
79	napropamide	10.23	Positive	$[M+H]^+$	272.1645	129.1148	171.0804	199.0754
80	omethoate	4.31	Positive	$[M+H]^+$	214.0297	182.9875	142.9926	154.9926
81	paclobutrazol	9.50	Positive	$[M+H]^+$	294.1368	70.0400	125.0153	139.0309
82	paraoxon	7.87	Positive	$[M+H]^+$	276.0632	220.0002	174.0076	94.0413
83	paraoxon–methyl	6.51	Positive	$[M+H]^+$	248.0319	202.0389	109.0049	90.0467
84	pendimethalin	13.53	Positive	$[M+H]^+$	282.1448	212.0666	194.0560	195.0638
85	phenthoate	10.81	Positive	$[M+H]^+$	321.0379	163.0754	247.0011	135.0804
86	phorate	11.73	Positive	$[M+H]^+$	261.0201	75.0263	46.9950	199.0889
87	phorate sulfone	7.95	Positive	$[M+H]^+$	293.0099	171.0239	247.0222	199.0011
88	phorate sulfoxide	7.81	Positive	$[M+H]^+$	277.0150	199.0011	170.9698	142.9385
89	desmethyl–pirimicarb	6.00	Positive	$[M+H]^+$	225.1346	72.0443	168.1131	
90	phosalone	11.63	Positive	$[M+H]^+$	367.9941	367.9941	182.0003	322.0064
91	phosfolan	6.36	Positive	$[M+H]^+$	256.0225	139.9563	167.9876	196.0192
92	phosmet	8.70	Positive	$[M+H]^+$	318.0018	160.0393	133.0284	105.0335
93	phosphamidon	6.51，6.67	Positive	$[M+H]^+$	300.0762	174.0680	226.9871	127.0155
94	picoxystrobin	10.57	Positive	$[M+H]^+$	368.1104	205.0859	145.0648	173.0597
95	piperonyl butoxide	13.14	Positive	$[M+NH_4]^+$	356.2431	119.0855	177.0910	147.0804
96	piperophos	12.07	Positive	$[M+H]^+$	354.1321	255.0273	170.9334	142.9385
97	pirimicarb	7.56	Positive	$[M+H]^+$	239.1503	72.0444	182.1288	85.0760
98	pirimiphos–ethyl	13.05	Positive	$[M+H]^+$	334.1349	198.1059	182.1288	170.0746

Table B.1 (continued)

No.	Compound Name	Rention Time(min)	Polarity	Molecular Ion Adduct Form	Parent Ion(m/z)	Typical Product Ions (m/z)		
99	pirimiphos-methyl	11.76	Positive	$[M+H]^+$	306.1036	164.1182	108.0556	136.0869
100	pretilachlor	12.43	Positive	$[M+H]^+$	312.1725	252.1150	176.1434	
101	prochloraz	11.58	Positive	$[M+H]^+$	376.0381	308.0006	265.9537	280.0057
102	profenofos	12.63	Positive	$[M+H]^+$	372.9424	302.8642	222.8977	
103	propamocarb	4.49	Positive	$[M+H]^+$	189.1598	102.0550	144.1019	74.0237
104	propanil	9.29	Negative	$[M-H]^-$	215.9988	161.9872	127.0183	
105	propaphos	11.00	Positive	$[M+H]^+$	305.0971	221.0031	141.0368	79.0542
106	propargite	13.65	Positive	$[M+NH_4]^+$	368.1890	231.1743	175.1117	107.0491
107	propetamphos	9.75	Positive	$[M+H]^+$	282.0923	138.0137	156.0243	194.9875
108	propiconazole	11.28, 11.30	Positive	$[M+H]^+$	342.0771	158.9763	69.0699	
109	propoxur	7.07	Positive	$[M+H]^+$	210.1125	111.0441	168.0655	153.0910
110	pyraclostrobin	11.43	Positive	$[M+H]^+$	388.1059	194.0812	296.0585	164.0706
111	pyrazophos	11.70	Positive	$[M+H]^+$	374.0934	222.0873	194.0560	238.0645
112	pyridaben	14.41	Positive	$[M+H]^+$	365.1449	309.0823	147.1168	
113	pyrifenox	10.02	Positive	$[M+H]^+$	295.0399	93.0573	263.0137	92.0495
114	quinalphos	10.94	Positive	$[M+H]^+$	299.0614	147.0553	163.0324	114.9613
115	sulfotep	10.98	Positive	$[M+H]^+$	323.0300	114.9613	142.9926	171.0239
116	tau-fluvalinate	14.44	Positive	$[M+H]^+$	503.1344	181.0648	133.0859	89.0597
117	tebuconazole	11.15	Positive	$[M+H]^+$	308.1524	70.0400	125.0153	
118	terbufos	12.92	Positive	$[M+H]^+$	289.0514	103.0576	57.0699	187.0011
119	terbufos sulfone	8.93	Positive	$[M+H]^+$	321.0412	171.0239	264.9786	275.0535
120	terbufos sulfoxide	8.94	Positive	$[M+H]^+$	305.0463	130.9385	158.9698	187.0011
121	Tetrachlorvinphos	10.80	Positive	$[M+H]^+$	364.9065	127.0156	238.8983	203.9295
122	tetramethrin	12.79	Positive	$[M+H]^+$	332.1856	286.1802	314.1751	164.0706
123	triadimefon	9.70	Positive	$[M+H]^+$	294.1004	197.0728	115.0754	225.0677

Table B.1 （continued）

No.	Compound Name	Rention Time（min）	Polarity	Molecular Ion Adduct Form	Parent Ion（m/z）	Typical Product Ions （m/z）		
124	triadimenol	9.90	Positive	$[M+H]^+$	296.1160	70.0413	99.0804	227.0833
125	triazophos	9.84	Positive	$[M+H]^+$	314.0723	162.0662	119.0604	114.9613
126	tricyclazole	6.33	Positive	$[M+H]^+$	190.0433	136.0215	163.0324	109.0106
127	vamidothion	5.80	Positive	$[M+H]^+$	288.0488	146.0634	118.0321	86.0600
128	aclonifen	11.00	Positive	$[M+H]^+$	265.0374	248.0347	182.0600	218.0367
129	allidochlor	6.74	Positive	$[M+H]^+$	174.0680	98.0964	106.0054	81.0699
130	ametryn	9.02	Positive	$[M+H]^+$	228.1277	186.0808	96.0556	91.0324
131	aminocarb	4.49	Positive	$[M+H]^+$	209.1285	152.1070	137.0835	
132	anilofos	11.08	Positive	$[M+H]^+$	368.0305	170.9698	198.9647	124.9821
133	atrazine-desethyl	6.28	Positive	$[M+H]^+$	188.0697	146.0228	104.0010	110.0461
134	aziprotryne	9.83	Positive	$[M+H]^+$	226.0869	156.0338	125.0822	114.0120
135	benalaxyl	11.24	Positive	$[M+H]^+$	326.1751	208.1332	148.1121	294.1489
136	bendiocarb	7.08	Positive	$[M+H]^+$	224.0917	167.0703	109.0284	59.0491
137	benodanil	7.98	Positive	$[M+H]^+$	323.9880	230.9301	94.0413	76.0308
138	benoxacor	8.87	Positive	$[M+H]^+$	260.0240	149.0835	120.0444	134.0600
139	benzoylprop-ethyl	11.31	Positive	$[M+H]^+$	366.0658	105.0335	95.0492	77.0386
140	bitertanol	11.60	Positive	$[M+H]^+$	338.1863	70.0400	269.1536	99.0804
141	boscalid	9.31	Positive	$[M+H]^+$	343.0399	307.0633	271.0866	272.0944
142	bromacil	7.22	Positive	$[M+H]^+$	261.0233	78.9189	202.9462	159.9403
143	bromuconazole	9.93，10.92	Positive	$[M+H]^+$	375.9614	158.9763	70.0413	172.9555
144	bupirimate	10.59	Positive	$[M+H]^+$	317.1642	166.0975	108.0114	210.1601
145	butafenacil	9.93	Positive	$[M+H]^+$	473.0733	179.9847	331.0092	123.9949
146	carboxin	7.44	Positive	$[M+H]^+$	236.0740	143.0161	124.0215	208.0427
147	chlordimeform	5.51	Positive	$[M+H]^+$	197.0840	117.0573	125.0153	152.0262
148	chloridazon	6.01	Positive	$[M+H]^+$	222.0429	92.0495	104.0495	65.0386
149	chlorsulfuron	7.12	Positive	$[M+H]^+$	358.0371	141.0771	167.0564	56.0495

Table B.1 （continued）

No.	Compound Name	Rention Time（min）	Polarity	Molecular Ion Adduct Form	Parent Ion（m/z）	Typical Product Ions （m/z）		
150	clomazone	8.84	Positive	$[M+H]^+$	240.0786	125.0153	89.0386	98.9996
151	cyanazine	6.75	Positive	$[M+H]^+$	241.0963	214.0854	132.0323	96.0556
152	cycloate	12.21	Positive	$[M+H]^+$	216.1417	83.0855	154.1226	134.0634
153	cycluron	8.53	Positive	$[M+H]^+$	199.1805	72.0444	89.0709	69.0699
154	cyflufenamid	11.46	Positive	$[M+H]^+$	413.1283	241.0383	295.0864	91.0542
155	cyproconazole	9.85	Positive	$[M+H]^+$	292.1211	70.0413	125.0153	138.9945
156	cyromazine	3.87	Positive	$[M+H]^+$	167.1040	85.0509	125.0822	108.0556
157	diethyltoluamide	8.22	Positive	$[M+H]^+$	192.1383	119.0491	91.0542	109.0648
158	diazinon	11.33	Positive	$[M+H]^+$	305.1083	169.0794	153.1022	114.9613
159	dichlormid	7.27	Positive	$[M+H]^+$	208.0290	139.9664	81.0699	98.0964
160	diclofop–methyl	12.90	Positive	$[M+NH_4]^+$	358.0607	281.0131	341.0342	
161	difenoconazole	11.90	Positive	$[M+H]^+$	406.0720	251.0025	337.0393	291.0338
162	difenoxuron	8.17	Positive	$[M+H]^+$	287.1390	123.0041	72.0444	46.0651
163	dimethachlor	8.62	Positive	$[M+H]^+$	256.1099	224.0837	148.1121	
164	dimethametryn	10.93	Positive	$[M+H]^+$	256.1590	186.0808	96.0556	71.0604
165	dimethenamid	9.38	Positive	$[M+H]^+$	276.0820	168.0842	244.0557	126.0372
166	dimethomorph	9.04，9.50	Positive	$[M+H]^+$	388.1310	165.0546	301.0626	138.9945
167	epoxiconazole	10.32	Positive	$[M+H]^+$	330.0804	121.0448	123.0241	141.0102
168	etaconazole	10.31	Positive	$[M+H]^+$	328.0614	158.9763	204.9818	186.9712
169	ethofumesate	9.04	Positive	$[M+H]^+$	287.0948	287.0948	241.0529	259.0635
170	ethoxyquin	10.07	Positive	$[M+H]^+$	218.1539	148.0757	176.1070	190.1226
171	etofenprox	15.24	Positive	$[M+NH_4]^+$	394.2377	177.1274	135.0804	189.1274
172	etoxazole	13.64	Positive	$[M+H]^+$	360.1770	141.0147	304.1132	177.1274
173	fenamidone	9.17	Positive	$[M+H]^+$	312.1165	92.0495	236.1182	103.0542
174	fenazaquin	14.51	Positive	$[M+H]^+$	307.1805	57.0699	161.1325	147.0553

Table B.1 （continued）

No.	Compound Name	Rention Time（min）	Polarity	Molecular Ion Adduct Form	Parent Ion（m/z）	Typical Product Ions （m/z）		
175	fenpiclonil	8.59	Positive	$[M+H]^+$	236.9981	202.0292	166.0526	140.0495
176	fenpropidin	8.38	Positive	$[M+H]^+$	274.2529	147.1168	86.0964	119.0855
177	fenpropimorph	10.08	Positive	$[M+H]^+$	304.2635	147.1168	98.0964	119.0855
178	fenuron	5.91	Positive	$[M+H]^+$	165.1022	72.0444	120.0444	92.0495
179	flamprop–isopropyl	11.13	Positive	$[M+H]^+$	364.1110	105.0335	172.0319	276.0581
180	fluazifop–p–butyl	8.59	Positive	$[M+H]^+$	328.0791	282.0736	91.0542	
181	fluazifop–butyl	12.62	Positive	$[M+H]^+$	384.1417	282.0725	328.0780	238.0463
182	flufenacet	10.19	Positive	$[M+H]^+$	364.0737	194.0976	152.0506	166.1027
183	flufenoxuron	13.53	Positive	$[M+H]^+$	489.0435	304.0158	329.0110	284.0095
184	flumioxazin	8.52	Positive	$[M+H]^+$	355.1089	327.1139	353.0943	
185	fluopyram	9.92	Positive	$[M+H]^+$	397.0537	208.0135	173.0209	170.0412
186	fluoroglycofen–ethyl	12.11	Positive	$[M+NH_4]^+$	465.0671	343.9932	222.9768	
187	fluquinconazole	10.06	Positive	$[M+H]^+$	376.0163	306.9836	349.0054	163.0302
188	flurochloridone	9.82	Positive	$[M+H]^+$	312.0164	212.0682	89.0153	172.0369
189	fluxapyroxad	9.46	Positive	$[M+H]^+$	382.0973	103.0302	248.0329	131.0426
190	furalaxyl	8.92	Positive	$[M+H]^+$	302.1387	242.1176	95.0128	270.1125
191	hexazinone	7.21	Positive	$[M+H]^+$	253.1659	171.0877	71.0604	85.0760
192	imazamethabenz–methyl	7.17	Positive	$[M+H]^+$	289.1547	86.0964	161.0709	144.0444
193	isocarbamide	6.24	Positive	$[M+H]^+$	186.1237	87.0553	130.0611	
194	isomethiozin	11.42	Positive	$[M+H]^+$	269.1431	200.0852	172.0903	116.0277
195	isoprocarb	8.07	Positive	$[M+H]^+$	194.1176	95.0491	137.0961	152.0706
196	isopropalin	14.16	Positive	$[M+H]^+$	310.1761	226.0822	268.1292	250.1186
197	isoprothiolane	9.55	Positive	$[M+H]^+$	291.0719	231.0144	188.9675	249.0250
198	isoproturon	8.28	Positive	$[M+H]^+$	207.1492	72.0444	165.1022	134.0964
199	isoxadifen–ethyl	10.86	Positive	$[M+H]^+$	296.1281	232.0757	203.0729	105.0335
200	mefenacet	9.86	Positive	$[M+H]^+$	299.0849	148.0757	120.0808	192.0114

Table B.1 (continued)

No.	Compound Name	Rention Time (min)	Polarity	Molecular Ion Adduct Form	Parent Ion (m/z)	Typical Product Ions (m/z)		
201	mefenpyr-diethyl	11.46	Positive	$[M+H]^+$	373.0716	327.0298	159.9715	298.9985
202	mepanipyrim	10.15	Positive	$[M+H]^+$	224.1182	106.0651	77.0386	182.0389
203	mepronil	9.63	Positive	$[M+H]^+$	270.1489	228.1019	119.0491	91.0542
204	metalaxyl	8.22	Positive	$[M+H]^+$	280.1543	192.1383	220.1332	160.1121
205	metamitron	5.99	Positive	$[M+H]^+$	203.0927	175.0978	104.0495	174.0788
206	metazachlor	8.10	Positive	$[M+H]^+$	278.1055	210.0680	134.0964	
207	metconazole	11.59	Positive	$[M+H]^+$	320.1524	70.0413	125.0153	177.0466
208	fipronil	10.55	Negative	$[M-H]^-$	434.9314	329.9595	249.9581	317.9692
209	fipronil sulfone	11.03	Negative	$[M-H]^-$	450.9263	414.9497	183.0176	233.9813
210	fipronil sulfoxide	10.71	Negative	$[M-H]^-$	418.9365	261.9581	313.9651	382.9598
211	fipronil desulfinyl	10.24	Negative	$[M-H]^-$	386.9644	350.9878	281.9926	330.9815
212	flonicamid	5.23	Negative	$[M-H]^-$	228.0390	81.0094	146.0223	
213	hexaflumuron	12.07	Negative	$[M-H]^-$	458.9743	438.9681	275.9612	402.9914
214	isoxaflutole	8.10	Positive	$[M+H]^+$	360.0512	358.0366	78.9859	378.0434
215	methabenzthiazuron	8.16	Positive	$[M+H]^+$	222.0696	165.0481	150.0246	124.0216
216	methfuroxam	8.68	Positive	$[M+H]^+$	230.1176	137.0597	111.0804	120.0444
217	methoprotryne	8.95	Positive	$[M+H]^+$	272.1540	198.0808	240.1277	230.1070
218	metribuzin	7.29	Positive	$[M+H]^+$	215.0961	187.1012	58.0413	84.0808
219	molinate	10.01	Positive	$[M+H]^+$	188.1104	126.0913	83.0855	98.0964
220	monalide	10.51	Positive	$[M+H]^+$	240.1150	85.1012	57.0700	128.0257
221	monolinuron	7.70	Positive	$[M+H]^+$	215.0582	126.0105	148.0631	127.0183
222	myclobutanil	9.71	Positive	$[M+H]^+$	289.1215	70.0400	125.0153	151.0309
223	norflurazon	8.35	Positive	$[M+H]^+$	304.0459	284.0397	160.0369	87.9948
224	novaluron	12.16	Positive	$[M+H]^+$	493.0196	158.0412	141.0146	310.0064
225	nuarimol	9.05	Positive	$[M+H]^+$	315.0695	81.0448	252.0889	243.0372

Table B.1 (continued)

No.	Compound Name	Rention Time(min)	Polarity	Molecular Ion Adduct Form	Parent Ion(m/z)	Typical Product Ions (m/z)		
226	ofurace	7.09	Positive	$[M+H]^+$	282.0891	254.0942	236.0837	160.1121
227	orbencarb	11.67	Positive	$[M+H]^+$	258.0714	125.0153	72.0444	100.0757
228	oxabetrinil	9.04	Positive	$[M+H]^+$	233.0921	147.0553	104.0495	77.0386
229	oxadiazon	13.07	Positive	$[M+H]^+$	345.0767	219.9563	303.0298	176.9505
230	oxadixyl	6.55	Positive	$[M+H]^+$	279.1339	219.1128	102.0550	149.0233
231	oxycarboxin	6.12	Positive	$[M+H]^+$	268.0638	175.0060	164.9854	193.0167
232	propisochlor	11.24	Positive	$[M+H]^+$	284.1412	212.0837	176.1434	252.1150
233	propyzamide	9.75	Positive	$[M+H]^+$	256.0290	227.9988	144.9617	186.9723
234	prosulfocarb	12.52	Positive	$[M+H]^+$	252.1417	91.0542	128.1070	86.0600
235	pyroquilon	7.03	Positive	$[M+H]^+$	174.0913	132.0808	117.0573	105.0699
236	quizalofop	10.08	Positive	$[M+H]^+$	345.0637	299.0582	271.0633	272.0347
237	quizalofop-ethyl	12.68	Positive	$[M+H]^+$	373.0950	299.0577	271.0628	255.0315
238	rabenzazole	8.23	Positive	$[M+H]^+$	213.1135	172.0869	118.0526	
239	resmethrin	14.66	Positive	$[M+H]^+$	339.1955	143.0855	171.0804	91.0542
240	spirodiclofen	13.97	Positive	$[M+H]^+$	411.1124	71.0855	313.0393	374.0107
241	spiromesifen	13.52	Positive	$[M+H]^+$	371.2217	273.1485	255.1380	187.0754
242	spirotetramat	10.02	Positive	$[M+H]^+$	374.1962	302.1751	270.1489	330.2064
243	spirotetramate-enol-glukosid	5.47	Positive	$[M+H]^+$	464.2279	216.1019	270.1489	302.1751
244	spirotetramate-keto-hydroxy	8.35	Positive	$[M+H]^+$	318.1700	300.1594	268.1332	214.0863
245	spirotetramate-mono-hydroxy	6.98	Positive	$[M+H]^+$	304.1907	119.0855	203.1390	186.1125
246	spiroxamine	9.15	Positive	$[M+H]^+$	298.2741	144.1383	100.1121	
247	tebufenpyrad	12.84	Positive	$[M+H]^+$	334.1681	117.0214	145.0522	147.1168
248	tebupirimfos	13.05	Positive	$[M+H]^+$	319.1240	277.0770	153.1022	
249	tebutam	10.53	Positive	$[M+H]^+$	234.1852	91.0520	142.1226	192.1380
250	tebuthiuron	7.34	Positive	$[M+H]^+$	229.1118	116.0277	172.0903	157.0668
251	terbumeton	8.78	Positive	$[M+H]^+$	226.1662	170.1036	142.0723	100.0505

Table B.1 （continued）

No.	Compound Name	Rention Time（min）	Polarity	Molecular Ion Adduct Form	Parent Ion（m/z）	Typical Product Ions（m/z）		
252	terbucarb	12.08	Positive	$[M+H]^+$	278.2115	109.0648	166.0863	222.1489
253	terbutryn	10.25	Positive	$[M+H]^+$	242.1434	186.0808	91.0324	158.0495
254	tetraconazole	10.13	Positive	$[M+H]^+$	372.0288	158.9761	70.0413	150.0231
255	trietazine	10.36	Positive	$[M+H]^+$	230.1167	99.0917	132.0323	202.0854
256	trifloxystrobin	12.05	Positive	$[M+H]^+$	409.1370	186.0525	116.0495	131.0730
257	triflumizole	12.28	Positive	$[M+H]^+$	346.0929	278.0543	73.0648	
258	triticonazole	10.25	Positive	$[M+H]^+$	318.1368	70.0413	125.0153	191.0622
259	uniconazole	10.58	Positive	$[M+H]^+$	292.1211	70.0408	125.0153	
260	vernolate	12.01	Positive	$[M+H]^+$	204.1417	128.1070	86.0600	
261	zoxamide	11.43	Positive	$[M+H]^+$	336.0319	186.9712	203.9977	132.0575
262	teflubenzuron	13.04	Negative	$[M-H]^-$	378.9670	195.9538	41.9985	294.9647
263	dioxacarb	5.92	Positive	$[M+H]^+$	224.0917	123.0441	95.0491	167.0703
264	diphenamid	8.53	Positive	$[M+H]^+$	240.1383	134.0964	167.0855	165.0699
265	dipropetryn	11.03	Positive	$[M+H]^+$	256.1590	214.1121	144.0338	172.0651
266	dithiopyr	12.19	Positive	$[M+H]^+$	402.0615	354.0582	271.9992	296.0355
267	dodemorph	15.26	Positive	$[M+H]^+$	282.2791	116.1070	98.0964	97.1012
268	fenhexamid	10.15	Positive	$[M+H]^+$	302.0709	97.1012	177.9821	142.0054
269	fenothiocarb	10.81	Positive	$[M+H]^+$	254.1209	160.3131	72.1141	
270	fenoxaprop-ethyl	12.59	Positive	$[M+H]^+$	362.0790	288.0422	121.0648	119.0491
271	fenoxycarb	10.67	Positive	$[M+H]^+$	302.1387	88.0393	116.0706	211.0754
272	fluroxypyr	13.51	Positive	$[M+H]^+$	254.9734	194.9534	232.9526	
273	fluroxypyr-meptyl	13.51	Positive	$[M+H]^+$	367.0986	254.9734	208.9674	180.9725
274	flusilazole	10.57	Positive	$[M+H]^+$	316.1076	165.0697	166.0775	185.0759
275	flutolanil	9.41	Positive	$[M+H]^+$	324.1206	242.0612	262.0674	173.0209
276	flutriafol	7.95	Positive	$[M+H]^+$	302.1099	70.0400	123.0241	233.0772

Table B.1 （continued）

No.	Compound Name	Rention Time(min)	Polarity	Molecular Ion Adduct Form	Parent Ion(m/z)	Typical Product Ions（m/z）		
277	fuberidazole	6.18	Positive	$[M+H]^+$	185.0709	157.0760	156.0682	92.0495
278	furathiocarb	12.73	Positive	$[M+H]^+$	383.1635	195.0474	167.0525	164.0832
279	furmecyclox	11.25	Positive	$[M+H]^+$	252.1594	170.0812	110.0600	138.0550
280	haloxyfop	10.32	Positive	$[M+H]^+$	362.0401	316.0347	288.0398	91.0542
281	haloxyfop-P-methyl	12.62	Positive	$[M+H]^+$	434.0977	316.0347	73.0648	288.0398
282	haloxyfop-methyl	12.03	Positive	$[M+H]^+$	376.0558	91.0542	316.0347	288.0398
283	pebulate	12.01	Positive	$[M+H]^+$	204.1417	162.0947	128.1070	72.0444
284	penconazole	11.07	Positive	$[M+H]^+$	284.0716	70.0400	158.9763	172.9919
285	picolinafen	12.92	Positive	$[M+H]^+$	377.0908	256.0580	359.0802	284.0529
286	prometryn	10.10	Positive	$[M+H]^+$	242.1434	158.0495	200.0964	116.0277
287	propachlor	8.34	Positive	$[M+H]^+$	212.0837	170.0367	94.0651	106.0651
288	propazine	9.22	Positive	$[M+H]^+$	230.1167	188.0698	146.0228	104.0010
289	pyriftalid	8.78	Positive	$[M+H]^+$	319.0747	139.0502	157.0608	179.0161
290	pyrimethanil	9.28	Positive	$[M+H]^+$	200.1182	82.0651	80.0495	182.0838
291	pyriproxyfen	13.25	Positive	$[M+H]^+$	322.1438	96.0444	185.0597	227.1067
292	quinoclamine	6.90	Positive	$[M+H]^+$	208.0160	105.0335	116.0495	144.0444
293	quinoxyfen	13.41	Positive	$[M+H]^+$	308.0040	213.9821	162.0105	272.0273
294	secbumeton	8.50	Positive	$[M+H]^+$	226.1662	170.1036	100.0505	142.0723
295	simazine	7.23	Positive	$[M+H]^+$	202.0854	132.0323	96.0556	104.0010
296	simetryn	7.91	Positive	$[M+H]^+$	214.1121	172.0651	82.0400	91.0324
297	thiobencarb	11.83	Positive	$[M+H]^+$	258.0714	125.0153	100.0757	
298	tolclofos-methyl	11.71	Positive	$[M+H]^+$	300.9616	286.9460	142.9926	174.9712
299	tolfenpyrad	12.95	Positive	$[M+H]^+$	384.1473	197.0961	145.0527	171.0320
300	triallate	13.41	Positive	$[M+H]^+$	304.0091	142.9217	261.9621	86.0600
301	dinitramine	11.64	Negative	$[M-H]^-$	321.0816	305.0856	247.0437	215.0665
302	albendazole	9.16	Positive	$[M+H]^+$	266.0958	234.0696	191.0148	159.0427

Table B.1 (continued)

No.	Compound Name	Rention Time(min)	Polarity	Molecular Ion Adduct Form	Parent Ion(m/z)	Typical Product Ions (m/z)		
303	carbendazim	5.54	Positive	$[M+H]^+$	192.0768	160.0505	132.0556	105.0447
304	carbetamide	6.78	Positive	$[M+H]^+$	237.1234	118.0863	120.0444	192.0655
305	dimethirimol	7.24	Positive	$[M+H]^+$	210.1601	140.1070	98.0600	150.1026
306	ethidimuron	5.64	Positive	$[M+H]^+$	265.0424	208.0209	161.9790	57.0447
307	fenoxanil	10.69	Positive	$[M+H]^+$	329.0818	302.0709	86.0964	188.9869
308	fenpyroximate	13.92	Positive	$[M+H]^+$	422.2074	138.0662	366.1448	231.1002
309	flumorph	8.25	Positive	$[M+H]^+$	372.1606	285.0169	165.0340	
310	flurtamone	8.96	Positive	$[M+H]^+$	334.1049	247.0729	105.0335	178.0777
311	hydramethylnon	11.61	Positive	$[M+H]^+$	495.1978	323.1478	368.0874	171.0416
312	hymexazol	4.58	Positive	$[M+H]^+$	100.0393	54.1013	31.0568	
313	imazamox	6.00	Positive	$[M+H]^+$	306.1448	193.0608	69.0699	86.0964
314	isoxaben	9.25	Positive	$[M+H]^+$	333.1809	165.0546	122.0364	150.0312
315	methoxyfenozide	9.50	Positive	$[M+H]^+$	369.2173	149.0597	313.1547	133.0648
316	nitenpyram	4.98	Positive	$[M+H]^+$	271.0956	224.0949	196.0636	126.0105
317	pyriminobac-methyl	8.76	Positive	$[M+H]^+$	362.1347	330.0841	284.0471	
318	rotenone	10.57	Positive	$[M+H]^+$	395.1489	213.0910	192.0781	203.0703
319	saflufenacil	8.61	Positive	$[M+H]^+$	501.0617	330.0306	256.1364	
320	sethoxydim	12.84	Positive	$[M+H]^+$	328.1941	178.0863	107.0491	220.1332
321	thiabendazole	5.93	Positive	$[M+H]^+$	202.0433	175.0324	131.0604	92.0495
322	thiamethoxam	5.21	Positive	$[M+H]^+$	292.0266	211.0648	131.9669	210.0570
323	thiofanox sulfoxide	5.63	Positive	$[M+H]^+$	235.1111	104.0165	178.0896	115.0992
324	thiophanate	8.26	Positive	$[M+H]^+$	371.0842	151.0324	325.0424	
325	trichlorfon	5.97	Positive	$[M+H]^+$	256.9299	127.0155	220.9532	144.9816
326	daminozide	2.06	Positive	$[M+H]^+$	161.0921	143.0815	61.0760	44.0495
327	3-hydroxy-carbofuran	5.61	Positive	$[M+H]^+$	238.1074	220.0968	181.0859	163.0754

Table B.1 (continued)

No.	Compound Name	Rention Time (min)	Polarity	Molecular Ion Adduct Form	Parent Ion (m/z)	Typical Product Ions (m/z)		
328	acetamiprid	5.86	Positive	$[M+H]^+$	223.0745	126.0105	56.0495	187.0978
329	aldicarb	6.55	Positive	$[M+NH_4]^+$	208.1114	89.0419	116.0528	70.0651
330	aldicarb-sulfoxide	4.62	Positive	$[M+H]^+$	207.0798	132.0478	89.0419	105.0369
331	aldicarb-sulfone	4.82	Positive	$[M+H]^+$	223.0747	148.0426	76.0393	
332	ametoctradin	12.10	Positive	$[M+H]^+$	276.2183	177.1009	176.0931	149.0822
333	amicarbazone	7.02	Positive	$[M+H]^+$	242.1612	143.1008	43.0154	
334	amitraz	15.39	Positive	$[M+H]^+$	294.1965	163.1230	122.0964	253.1699
335	abamectin B1a	14.70	Positive	$[M+NH_4]^+$	890.5260	751.3310	449.2015	
336	bensulfuron-methyl	8.57	Positive	$[M+H]^+$	411.0969	149.0597	182.0560	213.2092
337	carbofuran	7.13	Positive	$[M+H]^+$	222.1125	165.0910	123.0441	137.0597
338	chlorantraniliprole	8.51	Positive	$[M+H]^+$	483.9760	452.9338	285.9200	283.9221
339	chromafenozide	9.95	Positive	$[M+H]^+$	395.2329	175.0754	133.0648	
340	clofentezine	11.68	Positive	$[M+H]^+$	303.0199	130.0400	78.0338	
341	clothianidin	5.69	Positive	$[M+H]^+$	250.0160	165.0240	150.0006	
342	diafenthiuron	13.82	Positive	$[M+H]^+$	385.2308	278.1539	287.1179	
343	diflubenzuron	10.61	Positive	$[M+H]^+$	311.0393	158.0412	141.0146	
344	dimefox	5.61	Positive	$[M+H]^+$	155.0744	135.0682	92.0260	
345	dimefuron	8.59	Positive	$[M+H]^+$	339.1218	167.0002	72.0444	46.0651
346	dimoxystrobin	10.87	Positive	$[M+H]^+$	327.1703	238.1226	116.0495	
347	dinotefuran	4.68	Positive	$[M+H]^+$	203.1139	114.1026	87.0791	
348	diuron	8.42	Positive	$[M+H]^+$	233.0243	159.9715	132.9606	
349	emamectin benzoate B1a	12.95	Positive	$[M+H]^+$	886.5311	82.0651	126.0913	
350	ethametsulfuron-methyl	7.37	Positive	$[M+H]^+$	411.1081	170.1036	168.0516	
351	ethiprole	9.16	Positive	$[M+H]^+$	396.9899	350.9480	212.9480	
352	fluometuron	7.73	Positive	$[M+H]^+$	233.0896	160.0369	168.0256	
353	fluopicolide	9.53	Positive	$[M+H]^+$	382.9727	364.9621	212.0085	

Table B.1 （continued）

No.	Compound Name	Rention Time（min）	Polarity	Molecular Ion Adduct Form	Parent Ion（m/z）	Typical Product Ions （m/z）		
354	fluoxastrobin	9.90	Positive	$[M+H]^+$	459.0866	188.0380	367.0393	
355	fluthiacet-methyl	10.92	Positive	$[M+H]^+$	404.0300	273.9972	214.9839	
356	forchlorfenuron	8.27	Positive	$[M+H]^+$	248.0585	155.0007	129.0214	93.0466
357	hexythiazox	13.41	Positive	$[M+H]^+$	353.1085	168.0575	194.0367	
358	imazapic	6.11	Positive	$[M+H]^+$	276.1343	216.0768	231.1128	
359	imazapyr	5.64	Positive	$[M+H]^+$	262.1186	220.0717	202.0611	
360	imazaquin	6.89	Positive	$[M+H]^+$	312.1343	86.0964	86.0964	
361	imazethapyr	6.59	Positive	$[M+H]^+$	290.1499	230.0924	86.0964	
362	imidacloprid	5.60	Positive	$[M+H]^+$	256.0596	175.0978	84.0556	
363	isouron	7.35	Positive	$[M+H]^+$	212.1394	128.0818	140.0455	
364	mandipropamid	9.20	Positive	$[M+H]^+$	412.1310	204.1019	356.1048	
365	metosulam	6.99	Positive	$[M+H]^+$	418.0138	140.0262	173.9872	
366	metoxuron	6.49	Positive	$[M+H]^+$	229.0738	156.0211	149.0471	
367	metrafenone	11.76	Positive	$[M+H]^+$	409.0645	226.9702	194.0574	
368	oxamyl	4.87	Positive	$[M+NH_4]^+$	237.1016	72.0444	90.0550	
369	oxamyl-oxime	4.55	Positive	$[M+H]^+$	163.0536	115.0502	145.0430	
370	phosfolan-methyl	5.36	Positive	$[M+H]^+$	227.9912	140.2130	75.0989	
371	pinoxaden	11.54	Positive	$[M+H]^+$	401.2435	289.1547	101.0709	
372	pymetrozine	4.19	Positive	$[M+H]^+$	218.1036	79.0413	78.0334	
373	pyrimidifen	13.11	Positive	$[M+H]^+$	378.1943	150.1026	169.0396	
374	sulfentrazone	7.25	Positive	$[M+H]^+$	386.9892	129.0546	306.9949	
375	tebufenozide	10.61	Positive	$[M+H]^+$	353.2224	297.1598	203.1543	
376	thiacloprid	6.07	Positive	$[M+H]^+$	253.0309	90.0338	98.9996	
377	thifensulfuron-methyl	6.68	Positive	$[M+H]^+$	388.0380	204.9624	141.0771	
378	thiophanate-methyl	6.94	Positive	$[M+H]^+$	343.0529	311.0267	226.0645	

Table B.1 (continued)

No.	Compound Name	Rention Time(min)	Polarity	Molecular Ion Adduct Form	Parent Ion(m/z)	Typical Product Ions (m/z)		
379	triflumuron	11.47	Positive	$[M+H]^+$	359.0405	176.0329	84.9907	
380	amisulbrom	12.40	Positive	$[M+H]^+$	465.9649	108.0114	191.0979	
381	azinphos-methyl	8.60	Positive	$[M+H]^+$	318.0130	132.0444	160.0505	
382	benazolin-ethyl ester	9.03	Positive	$[M+H]^+$	272.0143	169.9821	134.0059	
383	benzofenap	12.43	Positive	$[M+H]^+$	431.0924	157.0608	119.0491	
384	bispyribac-sodium	12.44	Positive	$[M+H]^+$	431.1197	243.0400	119.0128	
385	bixafen	10.72	Positive	$[M+H]^+$	414.0382	91.0302	131.0426	
386	bromfenvinphos	11.49	Positive	$[M+H]^+$	402.9263	248.8867	98.9843	169.9683
387	brompyrazon	6.10	Positive	$[M+H]^+$	265.9924	104.0495	131.9443	
388	butoxycarboxim	4.74	Positive	$[M+H]^+$	223.0747	181.0529	90.0338	
389	chlorbromuron	9.42	Positive	$[M+H]^+$	292.9687	203.9205	182.0241	125.0027
390	chloroxuron	9.93	Positive	$[M+H]^+$	291.0895	72.0449	218.0362	46.0651
391	coumatetralyl	9.73	Positive	$[M+H]^+$	293.1172	131.0855	107.0491	
392	crimidine	6.48	Positive	$[M+H]^+$	172.0636	109.0760	95.0604	
393	fensulfothion	8.06	Positive	$[M+H]^+$	309.0379	281.0066	234.9647	
394	flamprop-methyl	9.70	Positive	$[M+H]^+$	336.0797	95.0496	276.0586	
395	ivermectin	15.66	Positive	$[M+Na]^+$	897.4971	753.4185	329.0041	
396	mefluidide	6.94	Positive	$[M+H]^+$	311.0672	178.1101	269.0567	135.0917
397	metamitron-desamino	5.96	Positive	$[M+H]^+$	188.0818	104.0495	119.0604	
398	nitralin	10.66	Positive	$[M+H]^+$	346.1067	304.0564	262.0182	141.1148
399	oryzalin	10.28	Positive	$[M+H]^+$	347.1020	198.0134	288.0284	
400	oxaziclomefone	12.57	Positive	$[M+H]^+$	376.0866	189.8757	160.7980	
401	spinosad A	11.79	Positive	$[M+H]^+$	732.4681	142.1226	98.0964	
402	spinosad D	12.56	Positive	$[M+H]^+$	746.4838	142.1226	98.0964	
403	sulcotrione	6.30	Positive	$[M+H]^+$	329.0245	111.0441	68.9971	
404	sulfoxaflor	6.03	Positive	$[M+H]^+$	278.0569	173.9547	153.9066	

Table B.1 (continued)

No.	Compound Name	Rention Time (min)	Polarity	Molecular Ion Adduct Form	Parent Ion (m/z)	Typical Product Ions (m/z)		
405	thidiazuron	7.09	Positive	$[M+H]^+$	221.0492	127.9913	77.0386	
406	triazoxide	8.12	Positive	$[M+H]^+$	248.0334	149.9979	98.9996	
407	flubendiamide	10.65	Negative	$[M-H]^-$	681.0160	254.0148	274.1440	
408	lufenuron	12.90	Negative	$[M-H]^-$	508.9711	174.9597	201.9468	
409	warfarin	9.25	Negative	$[M-H]^-$	307.0976	161.0244	250.0635	57.0346
410	amidithion	6.30	Positive	$[M+H]^+$	274.0331	198.9647	124.9821	170.9698
411	benzoximate	11.64	Positive	$[M+H]^+$	364.0946	199.0157	95.0491	
412	buturon	8.22	Positive	$[M+H]^+$	237.0789	84.0808	126.0105	222.0554
413	butylate	12.66	Positive	$[M+H]^+$	218.1573	156.1383	162.0947	100.0757
414	cinosulfuron	6.52	Positive	$[M+H]^+$	414.1078	157.0720	121.0284	
415	cloquintocet-mexyl	13.04	Positive	$[M+H]^+$	336.1361	238.0266	192.0206	179.0128
416	coumoxystrobin	12.96	Positive	$[M+H]^+$	437.1959	145.0510	205.0696	
417	cumyluron	9.78	Positive	$[M+H]^+$	303.1259	119.0855	125.0153	
418	cyantraniliprole	7.39	Positive	$[M+H]^+$	473.0123	285.8974	443.9171	
419	cyclosulfamuron	9.85	Positive	$[M+H]^+$	422.1129	139.0376	279.0387	
420	cythioate	6.33	Positive	$[M+H]^+$	297.9967	217.0083	283.9811	
421	prothioconazole-desthi	10.54	Positive	$[M+H]^+$	312.0665	70.0400	125.0153	189.0466
422	dialifos	11.79	Positive	$[M+H]^+$	394.0098	181.0050	158.9698	
423	dimepiperate	12.27	Positive	$[M+H]^+$	264.1417	119.0855	91.0542	
424	doramectin	15.22	Positive	$[M+Na]^+$	921.4971	777.4185	789.9932	
425	ethaboxam	7.71	Positive	$[M+H]^+$	321.0838	183.0587	237.0805	68.0495
426	ethiolate	8.66	Positive	$[M+H]^+$	162.0947	100.0757	72.0444	
427	ethoxysulfuron	9.45	Positive	$[M+H]^+$	399.0969	236.0329	182.0560	
428	etobenzanid	11.24	Positive	$[M+H]^+$	340.0502	149.0599	121.0284	
429	fenaminstrobin	12.29	Positive	$[M+H]^+$	434.1033	171.0870	136.1147	

Table B.1 （continued）

No.	Compound Name	Rention Time(min)	Polarity	Molecular Ion Adduct Form	Parent Ion(m/z)	Typical Product Ions（m/z）		
430	fluridone	8.59	Positive	$[M+H]^+$	330.1100	310.1038	290.0976	242.0964
431	isopyrazam	11.94	Positive	$[M+H]^+$	360.1882	244.0881	340.1820	
432	kadethrin	12.25	Positive	$[M+H]^+$	397.1468	171.0804	91.0542	143.0855
433	lactofen	12.70	Positive	$[M+NH_4]^+$	479.0827	344.1021	223.1105	
434	lenacil	8.23	Positive	$[M+H]^+$	235.1441	136.0393	135.0553	
435	mecarbam	10.21	Positive	$[M+H]^+$	330.0593	199.0011	116.0342	
436	mesosulfuron-methyl	7.68	Positive	$[M+H]^+$	504.0853	99.0427	306.0067	
437	penthiopyrad	10.91	Positive	$[M+H]^+$	360.1352	276.0413	177.0270	
438	phenothrin	14.93	Positive	$[M+H]^+$	351.1955	183.0804	237.1274	249.1274
439	pyraclonil	7.58	Positive	$[M+H]^+$	315.1119	257.1040	263.1003	
440	pyroxsulam	6.80	Positive	$[M+H]^+$	435.0693	258.0281	195.0738	
441	yishijing	7.65	Negative	$[M-H]^-$	295.1452	105.0224	241.1020	
442	simeconazole	10.20	Positive	$[M+H]^+$	294.1432	70.0400	135.0605	73.0468
443	amidosulfuron	7.32	Positive	$[M+H]^+$	370.0486	261.0288	218.0230	
444	bensulide	10.60	Positive	$[M+H]^+$	398.0678	218.0304	141.0005	200.0199
445	bromfenvinphos-methyl	10.11	Positive	$[M+H]^+$	374.8950	127.0155	248.8868	169.9685
446	carpropamid	11.15	Positive	$[M+H]^+$	334.0527	139.0309	196.0291	160.0524
447	chlorfenvinphos	11.28	Positive	$[M+H]^+$	358.9768	155.0468	127.0155	204.9371
448	chlorobenzuron	11.01	Positive	$[M+H]^+$	309.0192	156.1125	139.2100	
449	cinidon-ethyl	12.92	Positive	$[M+H]^+$	394.0607	348.0189	366.0294	107.0491
450	crufomate	10.66	Positive	$[M+H]^+$	292.0864	126.0315	236.0238	260.0602
451	dazomet	5.01	Positive	$[M+H]^+$	163.0358	119.9936	90.0372	95.0492
452	demeton-methyl	7.25	Positive	$[M+H]^+$	231.0273	114.9613	142.9926	174.9647
453	desmetryn	7.95	Positive	$[M+H]^+$	214.1121	172.0651	82.0400	91.0324
454	diethyl aminoethyl hexanoate	6.03	Positive	$[M+H]^+$	216.1958	143.0414	100.0614	
455	enestroburin	12.69	Positive	$[M+H]^+$	400.1310	178.0415	145.1310	136.9665

Table B.1 (continued)

No.	Compound Name	Rention Time (min)	Polarity	Molecular Ion Adduct Form	Parent Ion (m/z)	Typical Product Ions (m/z)		
456	fenpyrazamine	9.76	Positive	$[M+H]^+$	332.1427	228.8899	272.0014	
457	hydroprene	16.07	Positive	$[M+H]^+$	267.2319	117.1021	151.0432	
458	iprodione	10.66	Positive	$[M+H]^+$	330.0407	242.9734	141.0670	
459	mesotrione	5.93	Positive	$[M+H]^+$	340.0485	227.9979	104.1321	
460	metobromuron	8.03	Positive	$[M+H]^+$	259.0077	169.9600	148.0631	170.9678
461	metsulfuron-methyl	6.79	Positive	$[M+H]^+$	382.0816	167.0564	199.0060	141.0771
462	oxasulfuron	6.64	Positive	$[M+H]^+$	407.1020	150.0662	209.9842	57.0335
463	pentanochlor	10.92	Positive	$[M+H]^+$	240.1150	142.0413	107.0230	71.0855
464	pethoxamid	10.21	Positive	$[M+H]^+$	296.1412	131.0855	250.0993	73.0648
465	prothioconazole	11.46	Positive	$[M+H]^+$	344.0386	326.0280	125.0153	
466	pyraflufen-ethyl	11.08	Positive	$[M+H]^+$	413.0277	338.9898	288.9930	253.0163
467	pyrametostrobin	10.70	Positive	$[M+H]^+$	382.1761	176.0332	215.6519	
468	sebuthylazine	9.14	Positive	$[M+H]^+$	230.1167	174.0541	96.0556	132.0323
469	sulprofos	13.49	Positive	$[M+H]^+$	323.0358	218.9698	139.0212	77.0420
470	thiofanox sulfone	5.77	Positive	$[M+H]^+$	251.1060	57.0700	194.0845	76.0393
471	topramezone	5.29	Positive	$[M+H]^+$	364.0962	334.0856	125.0346	
472	triamiphos	8.02	Positive	$[M+H]^+$	295.1431	135.0679	92.0260	
473	triflusulfuron-methyl	9.11	Positive	$[M+H]^+$	493.1112	264.0698	238.0907	
474	tritosulfuron	7.79	Positive	$[M+H]^+$	446.0352	195.0479	221.0276	110.0212
475	flufiprole	10.99	Negative	$[M-H]^-$	488.9784	422.1031	407.1414	
476	metaflumizone	12.66	Positive	$[M+H]^+$	507.1250	287.0791	178.0472	116.0495
477	bensultap	9.13	Positive	$[M+H]^+$	432.0426	290.3378	213.0039	102.9671
478	benzovindiflupyr	11.06	Positive	$[M+H]^+$	398.0633	368.2911	90.9820	
479	chlorimuron-ethyl	9.31	Positive	$[M+H]^+$	415.0474	186.0060	213.0209	121.0284
480	clodinafop-propargyl	10.84	Positive	$[M+H]^+$	350.0590	266.0374	238.0403	91.0542

Table B.1 (continued)

No.	Compound Name	Rention Time(min)	Polarity	Molecular Ion Adduct Form	Parent Ion(m/z)	Typical Product Ions (m/z)		
481	cloransulam-methyl	7.31	Positive	$[M+H]^+$	430.0383	153.0141	370.2381	397.8793
482	cyazofamid	10.21	Positive	$[M+H]^+$	325.0521	108.0114	261.0902	217.0401
483	diclosulam	7.43	Positive	$[M+H]^+$	405.9938	160.9792	223.9327	314.0006
484	DMST	7.23	Positive	$[M+H]^+$	215.0849	106.0651	79.0542	107.0730
485	drazoxolon	10.27	Positive	$[M+H]^+$	238.0378	177.0214	131.0651	98.9996
486	florasulam	6.22	Positive	$[M+H]^+$	360.0373	129.0385	191.9925	144.0255
487	flucarbazone-sodium	5.95	Positive	$[M+H]^+$	419.0244	130.0611	115.0376	75.0396
488	flucetosulfuron	8.60	Positive	$[M+H]^+$	488.1246	156.0102	273.0164	
489	flumetsulam	5.65	Positive	$[M+H]^+$	326.0518	129.0385	144.0256	191.9925
490	foramsulfuron	7.26	Positive	$[M+H]^+$	453.1187	182.0560	255.0434	272.0700
491	halofenozide	9.18	Positive	$[M+H]^+$	331.1208	105.0335	138.9945	72.0808
492	imibenconazole	13.00	Positive	$[M+H]^+$	410.9999	125.0153	341.9672	171.0031
493	ipconazole	12.39	Positive	$[M+H]^+$	334.1681	70.0400	125.0153	
494	monuron	7.02	Positive	$[M+H]^+$	199.0633	72.0444	126.0105	98.9996
495	oxadiargyl	11.48	Positive	$[M+H]^+$	341.0454	233.0031	257.9746	
496	propaquizafop	12.92	Positive	$[M+H]^+$	444.1321	137.1456	237.1139	
497	pyraoxystrobin	11.44	Positive	$[M+H]^+$	413.1263	205.0578	368.2146	
498	pyrazoxyfen	11.13	Positive	$[M+H]^+$	403.0611	91.0542	105.0335	119.0491
499	quinmerac	5.96	Positive	$[M+H]^+$	222.0316	204.0211	176.0262	141.0573
500	sedaxane	9.78	Positive	$[M+H]^+$	332.1569	158.8198	291.7951	311.7919
501	siduron	9.19	Positive	$[M+H]^+$	233.1649	137.0709	94.0651	55.0542
502	silthiofam	10.80	Positive	$[M+H]^+$	268.1186	252.0873	139.0212	73.0468
503	sulfosulfuron	8.44	Positive	$[M+H]^+$	471.0751	211.0536	279.0394	261.0288
504	temephos	12.81	Positive	$[M+H]^+$	466.9970	142.9928	341.0066	404.9780
505	thenylchlor	10.17	Positive	$[M+H]^+$	324.0820	127.0212	97.0107	65.0386
506	thiodicarb	7.35	Positive	$[M+H]^+$	355.0563	88.0215	107.9936	149.0202

Table B.1 (continued)

No.	Compound Name	Rention Time(min)	Polarity	Molecular Ion Adduct Form	Parent Ion(m/z)	Typical Product Ions (m/z)		
507	triasulfuron	6.67	Positive	$[M+H]^+$	402.0633	167.0564	141.0771	121.0284
508	triforine	8.35	Positive	$[M+H]^+$	432.9321	387.9106	342.8891	214.9904
509	halosulfuron-methyl	9.40	Positive	$[M+H]^+$	435.0484	182.0560	139.0502	83.0245
510	prohexadione	6.48	Negative	$[M-H]^-$	211.0612	123.1045	111.1400	
511	cymoxanil	6.14	Positive	$[M+H]^+$	199.0826	83.0240	129.0295	111.0189
512	diflufenican	12.11	Positive	$[M+H]^+$	395.0813	266.0423	238.0474	246.0361
513	famoxadone	11.21	Positive	$[M+NH_4]^+$	392.1605	331.1441	238.1101	237.1022
514	fentrazamide	11.05	Positive	$[M+H]^+$	350.1378	197.1285	154.1226	115.0502
515	fluacrypyrim	11.90	Positive	$[M+H]^+$	427.1475	205.0859	145.0648	
516	fluazuron	13.27	Positive	$[M+H]^+$	506.0092	158.0412	348.9742	141.0145
517	flubenzimine	12.48	Positive	$[M+H]^+$	417.0603	187.0478	167.0415	136.0214
518	flumetralin	13.66	Positive	$[M+H]^+$	422.0525	143.0087	341.0908	107.0303
519	flumiclorac-pentyl	12.71	Positive	$[M+H]^+$	424.1322	308.0484	326.0590	107.0491
520	imidaclothiz	5.75	Positive	$[M+H]^+$	262.0160	181.1146	122.2094	
521	iodosulfuron-methyl	8.10	Positive	$[M+H]^+$	507.9782	167.0564	141.0771	324.9026
522	metamifop	12.56	Positive	$[M+H]^+$	441.1012	287.9896	188.0607	
523	penflufen	10.91	Positive	$[M+H]^+$	318.1976	141.0459	234.1037	115.0666
524	penoxsulam	7.23	Positive	$[M+H]^+$	484.0709	195.0751	164.0567	444.0584
525	primisulfuron-methyl	9.19	Positive	$[M+H]^+$	469.0436	254.0179	199.0053	135.0427
526	proquinazid	15.34	Positive	$[M+H]^+$	373.0407	288.9468	271.9203	330.9938
527	pyraclofos	11.56	Positive	$[M+H]^+$	361.0537	256.9877	138.0104	140.0265
528	pyrazosulfuron-ethyl	9.84	Positive	$[M+H]^+$	415.1030	182.0560	139.0502	157.0608
529	pyribenzoxim	12.72	Positive	$[M+H]^+$	610.1932	180.1114	413.1572	
530	pyributicarb	13.24	Positive	$[M+H]^+$	331.1475	181.0430	126.0550	190.1226
531	pyridaphenthion	9.69	Positive	$[M+H]^+$	341.0719	189.0659	313.0406	92.0495

Table B.1 （continued）

No.	Compound Name	Rention Time(min)	Polarity	Molecular Ion Adduct Form	Parent Ion(m/z)	Typical Product Ions（m/z）		
532	pyrisoxazole	9.27	Positive	$[M+H]^+$	289.1102	151.0871	120.0444	122.0606
533	quinclorac	6.16	Positive	$[M+H]^+$	241.9770	223.9664	213.9821	161.0027
534	thifluzamide	10.24	Positive	$[M+H]^+$	526.8494	166.0143	358.8793	
535	thionazin	8.20	Positive	$[M+H]^+$	249.0457	113.0168	97.0396	192.9828
536	tifatol	5.95	Positive	$[M+H]^+$	219.0951	171.0917	144.0808	77.0386
537	trinexapac-ethyl	8.47	Positive	$[M+H]^+$	253.1071	69.0335	207.0652	186.0887
538	6-hydroxy-bentazone	6.17	Negative	$[M-H]^-$	255.0445	148.1014	191.1201	
539	Bentazone	6.43	Negative	$[M-H]^-$	239.0496	132.0329	197.0026	133.0407
540	fomesafen	8.62	Negative	$[M-H]^-$	436.9827	194.9830	72.0091	198.0303

Appendix C
(Informative reference)
Extraction ion chromatograms of 540 pesticides

C.1 Extraction ion chromatograms of 540 pesticides see Figure C.1 to Figure C.540.

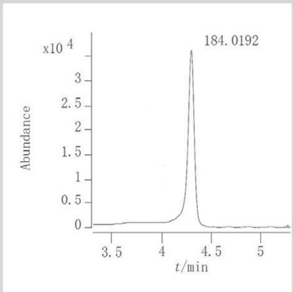

Fig C.1 acephate EIC

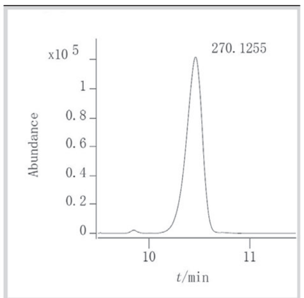

Fig C.2 acetochlor EIC

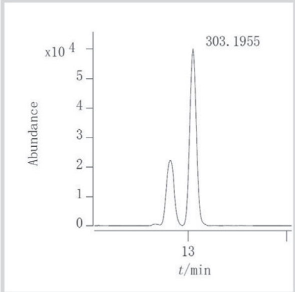

Fig C.3 allethrin EIC

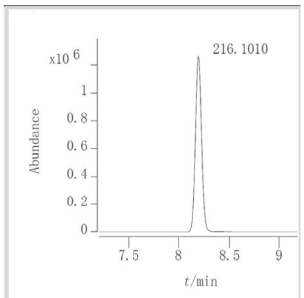

Fig C.4 atrazine EIC

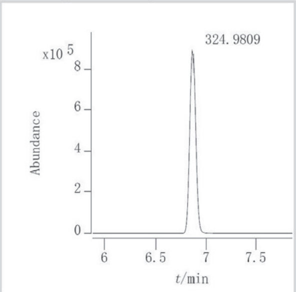

Fig C.5 azamethiphos EIC

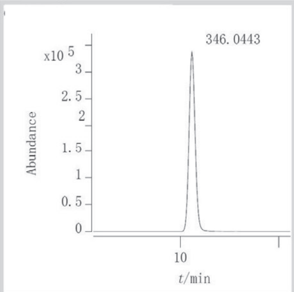

Fig C.6 azinphos-ethyl EIC

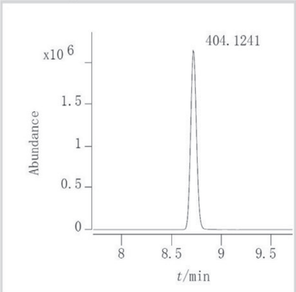

Fig C.7 azoxystrobin EIC

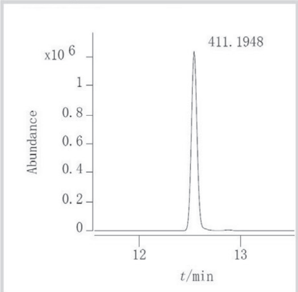

Fig C.8 benfuracarb EIC

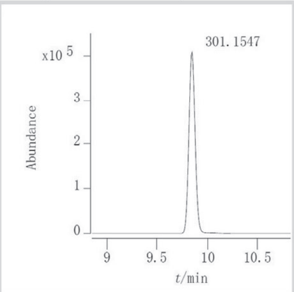

Fig C.9 bifenazate EIC

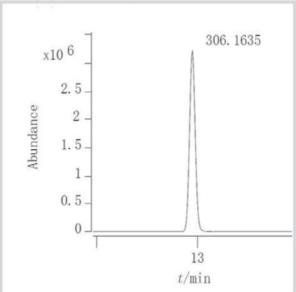

Fig C.10 buprofezin EIC

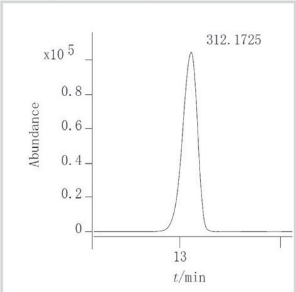

Fig C.11 butachlor EIC

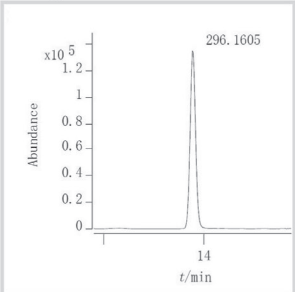

Fig C.12 butralin EIC

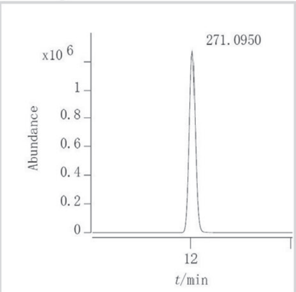

Fig C.13 cadusafos EIC

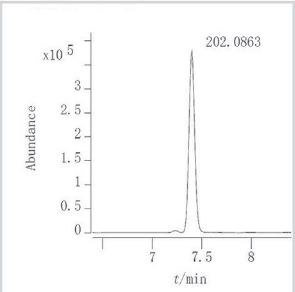

Fig C.14 carbaryl EIC

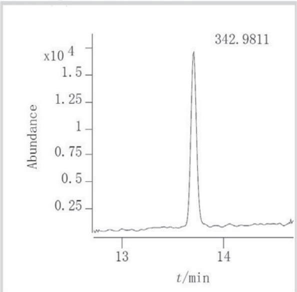

Fig C.15 carbophenothion EIC

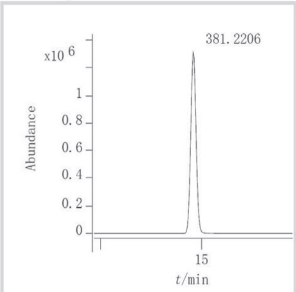

Fig C.16 carbosulfan EIC

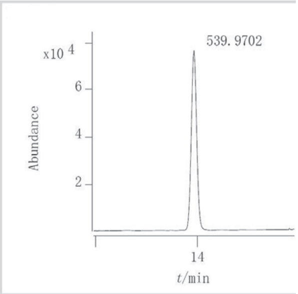

Fig C.17 chlorfluazuron EIC

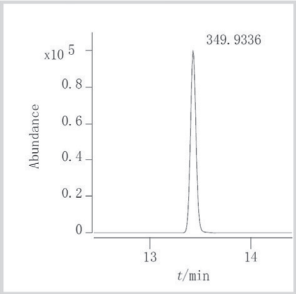

Fig C.18 chlorpyrifos EIC

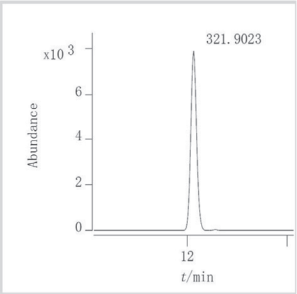

Fig C.19 chlorpyrifos-methyl EIC

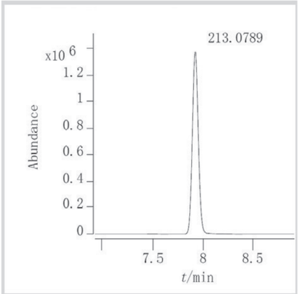

Fig C.20 chlorotoluron EIC

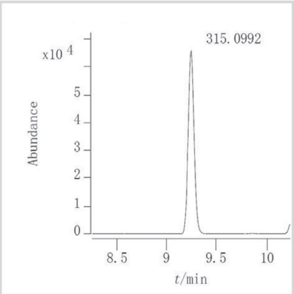

Fig C.21 crotoxyphos EIC

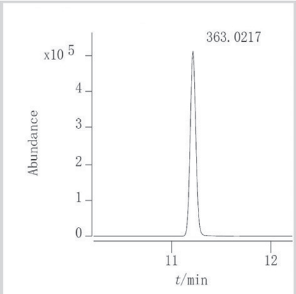

Fig C.22 coumaphos EIC

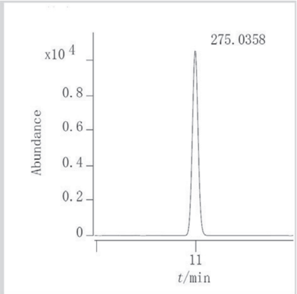

Fig C.23 disulfoton EIC

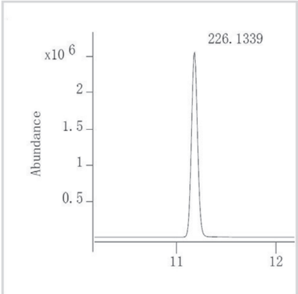

Fig C.24 cyprodinil EIC

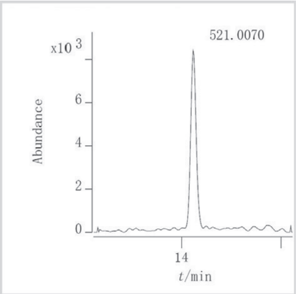

Fig C.25 deltamethrin EIC

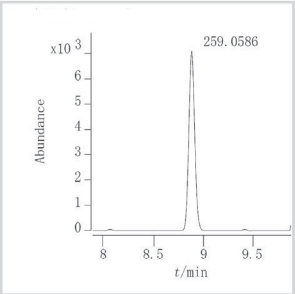

Fig C.26 demeton EIC

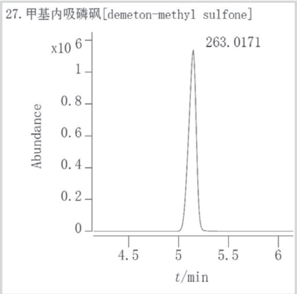

Fig C.27 demeton-methyl sulfone EIC

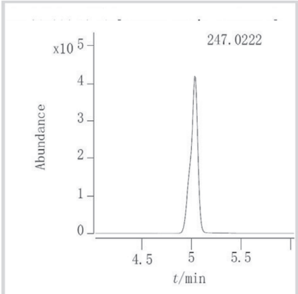

Fig C.28 demeton-methyl sulfoxide EIC

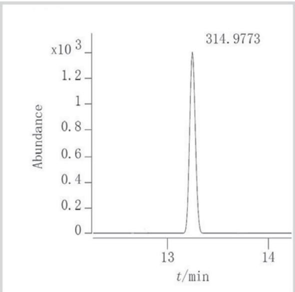

Fig C.29 dichlofenthion EIC

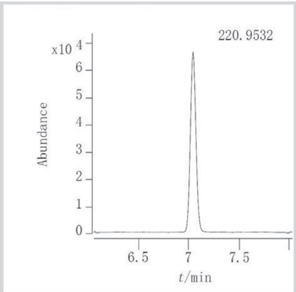

Fig C.30 dichlorvos EIC

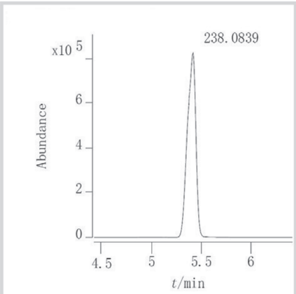

Fig C.31 dicrotophos EIC

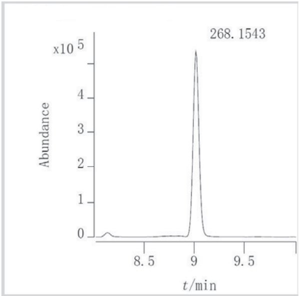

Fig C.32 diethofencarb EIC

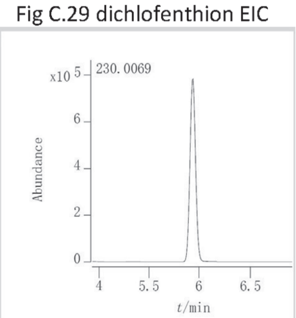

Fig C.33 dimethoate EIC

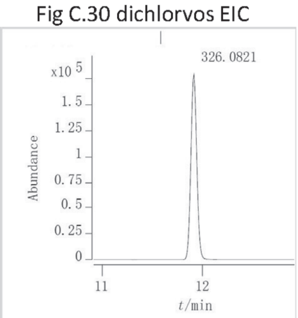

Fig C.34 diniconazole EIC

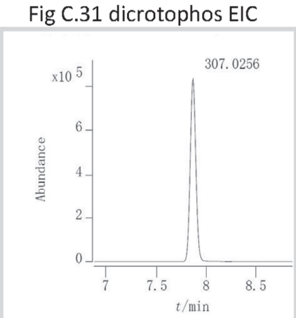

Fig C.35 disulfoton-sulfone EIC

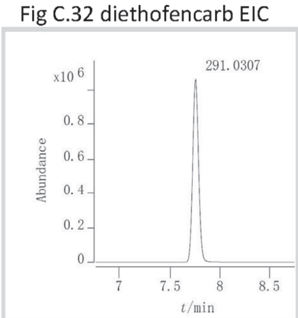

Fig C.36 disulfoton-sulfoxide EIC

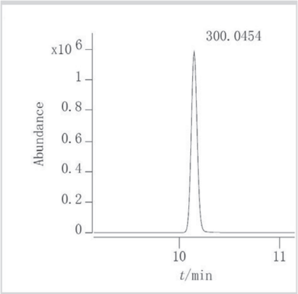

Fig C.37 ditalimfos EIC

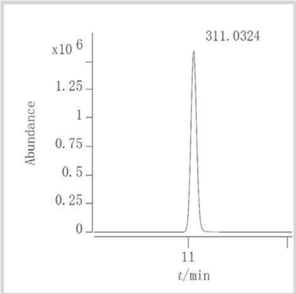

Fig C.38 edifenphos EIC

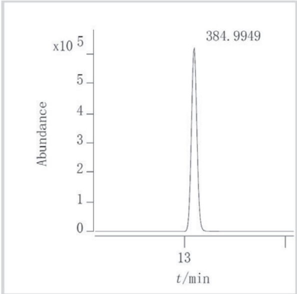

Fig C.39 ethion EIC

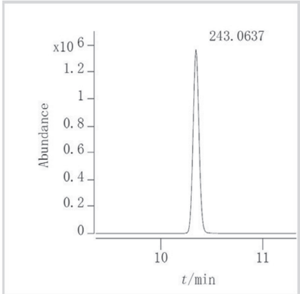

Fig C.40 ethoprophos EIC

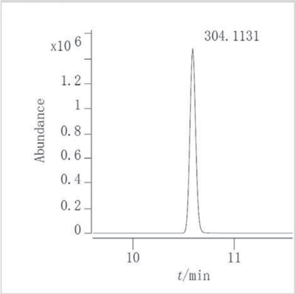

Fig C.41 fenamiphos EIC

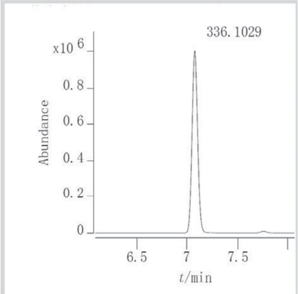

Fig C.42 fenamiphos sulfone EIC

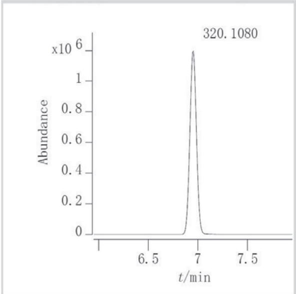

Fig C.43 fenamiphos sulfoxide EIC

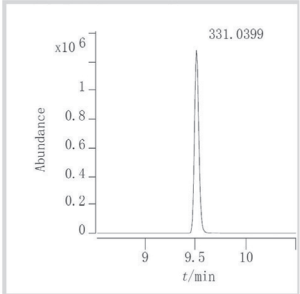

Fig C.44 fenarimol EIC

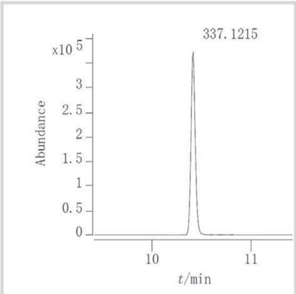

Fig C.45 fenbuconazole EIC

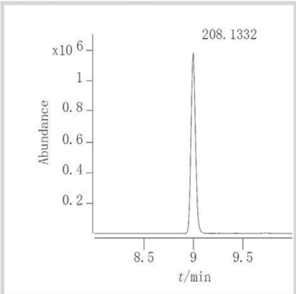

Fig C.46 fenobucarb EIC

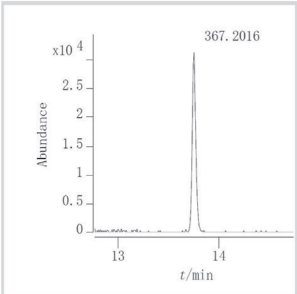

Fig C.47 fenpropathrin EIC

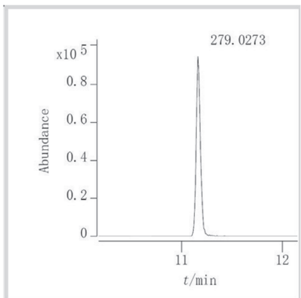

Fig C.48 fenthion EIC

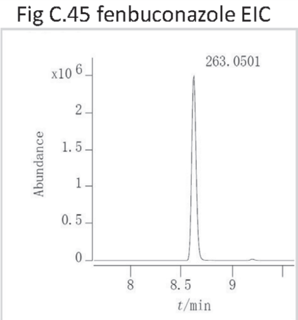

Fig C.49 fenthion oxon EIC

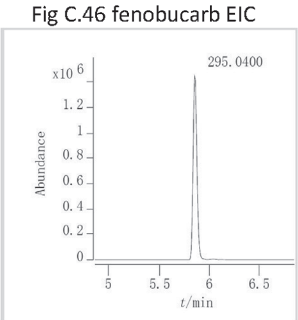

Fig C.50 fenthion oxon sulfone EIC

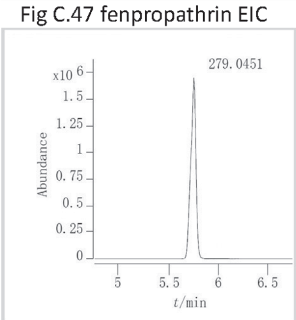

Fig C.51 fenthion oxon sulfoxide EIC

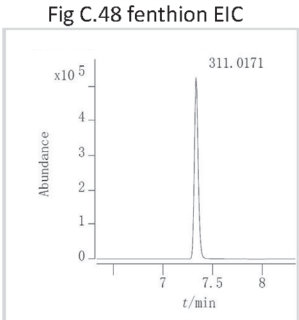

Fig C.52 fenthion sulfone EIC

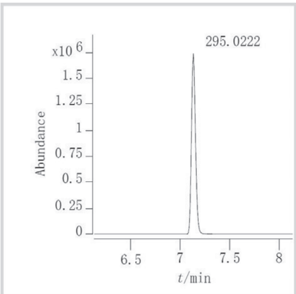

Fig C.53 fenthion sulfoxide EIC

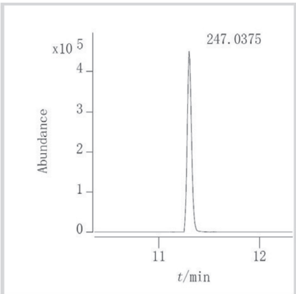

Fig C.54 fonofos EIC

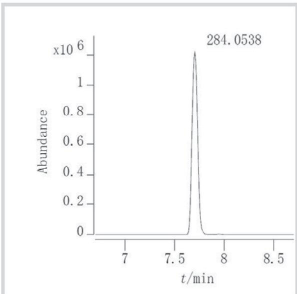

Fig C.55 fosthiazate EIC

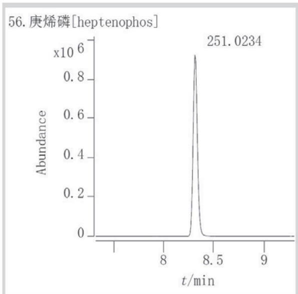

Fig C.56 heptenophos EIC

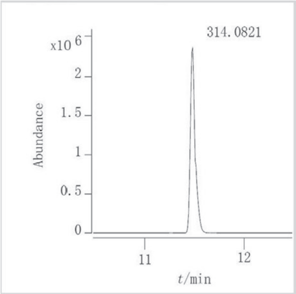

Fig C.57 hexaconazole EIC

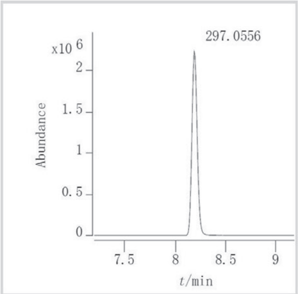

Fig C.58 imazalil EIC

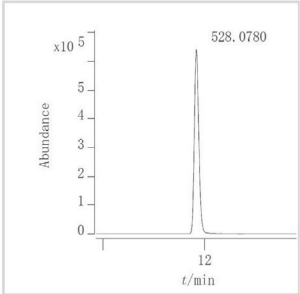

Fig C.59 indoxacarb EIC

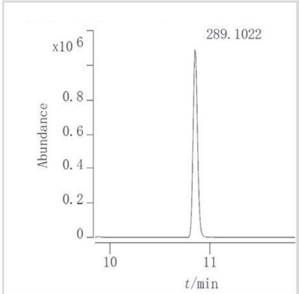

Fig C.60 iprobenfos EIC

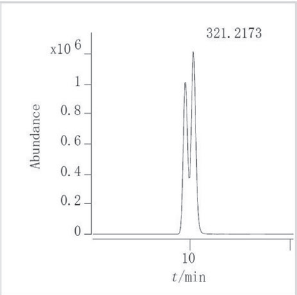

Fig C.61 iprovalicarb EIC

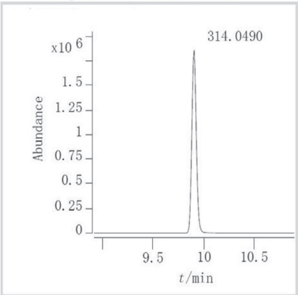

Fig C.62 isazofos EIC

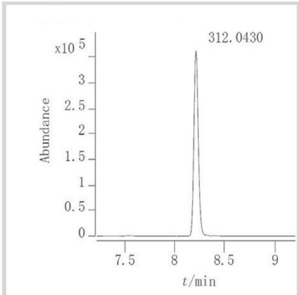

Fig C.63 isocarbophos EIC

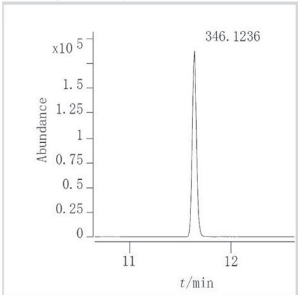

Fig C.64 isofenphos EIC

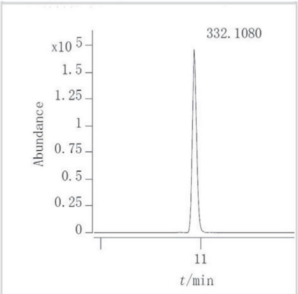

Fig C.65 isofenphos-methyl EIC

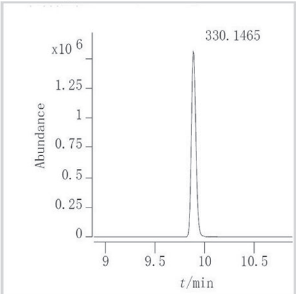

Fig C.66 isofenphos oxon EIC

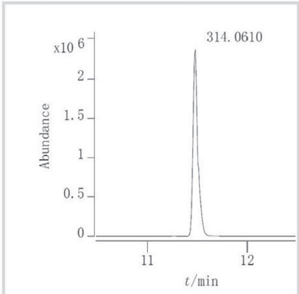

Fig C.67 isoxathion EIC

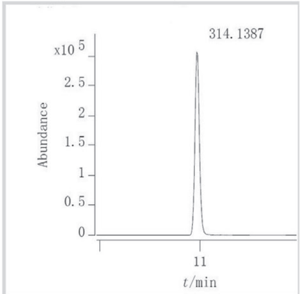

Fig C.68 kresoxim-methyl EIC

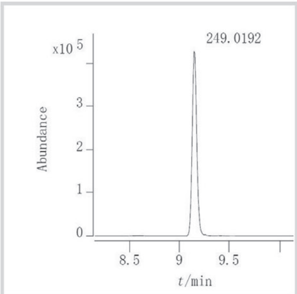

Fig C.69 linuron EIC

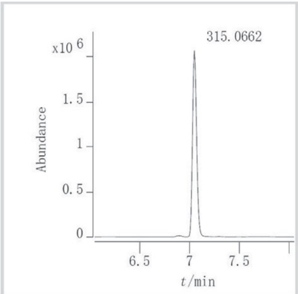

Fig C.70 malaoxon EIC

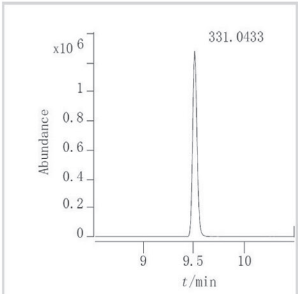

Fig C.71 malathion EIC

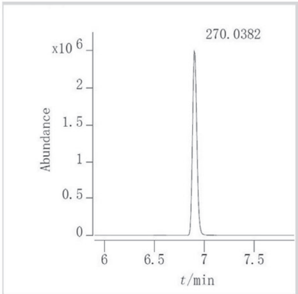

Fig C.72 mephosfolan EIC

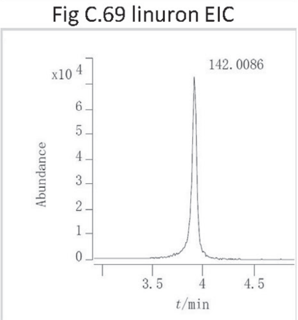

Fig C.73 methamidophos EIC

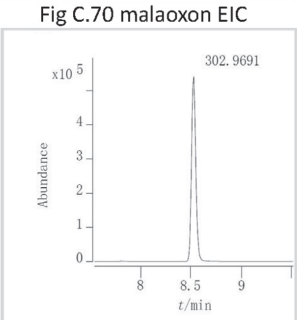

Fig C.74 methidathion EIC

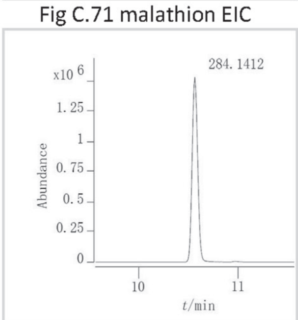

Fig C.75 metolachlor EIC

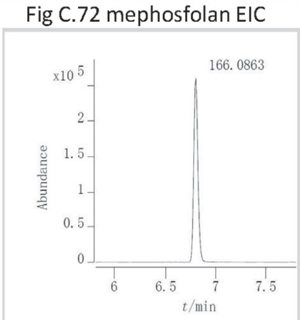

Fig C.76 metolcarb EIC

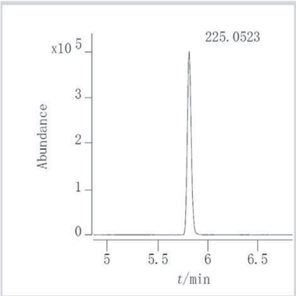

Fig C.77 mevinphos EIC

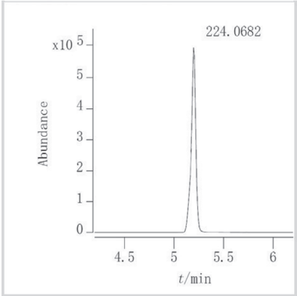

Fig C.78 monocrotophos EIC

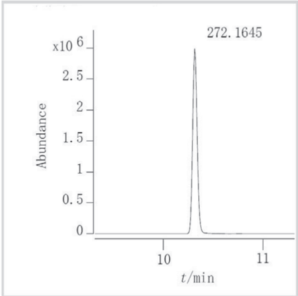

Fig C.79 napropamide EIC

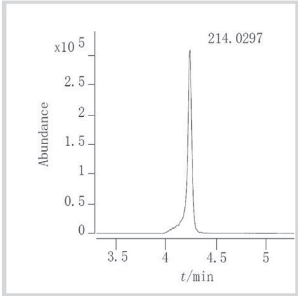

Fig C.80 omethoate EIC

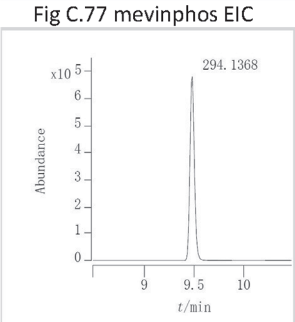

Fig C.81 paclobutrazol EIC

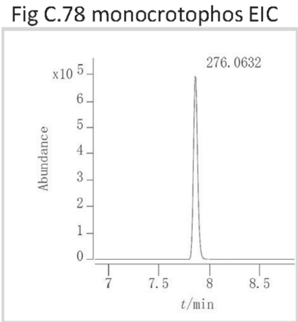

Fig C.82 paraoxon EIC

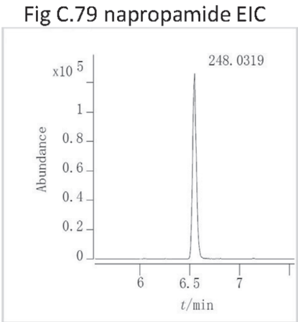

Fig C.83 paraoxon-methyl EIC

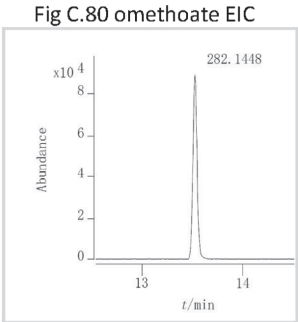

Fig C.84 pendimethalin EIC

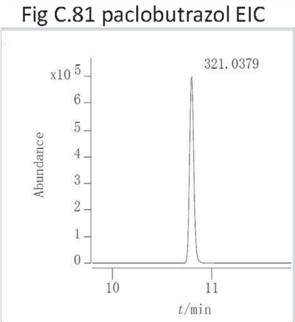

Fig C.85 phenthoate EIC

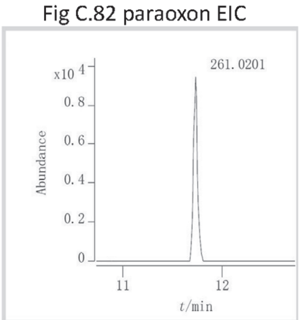

Fig C.86 phorate EIC

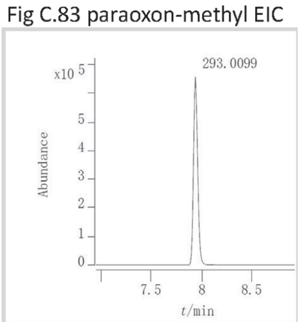

Fig C.87 phorate sulfone EIC

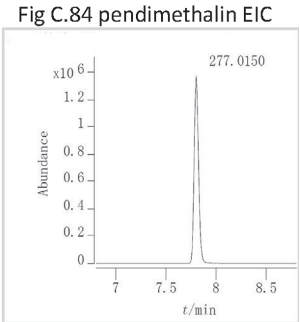

Fig C.88 phorate sulfoxide EIC

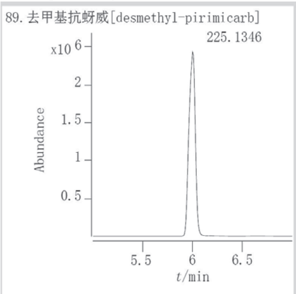

Fig C.89 desmethyl-pirimicarb EIC

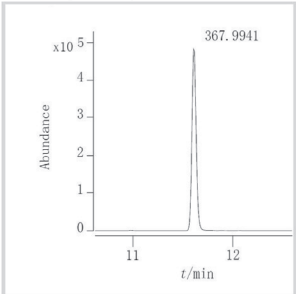

Fig C.90 phosalone EIC

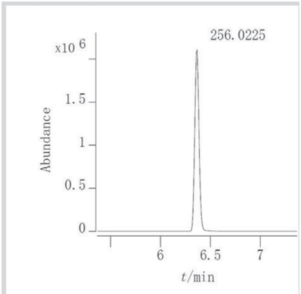

Fig C.91 phosfolan EIC

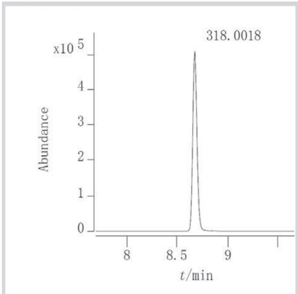

Fig C.92 phosmet EIC

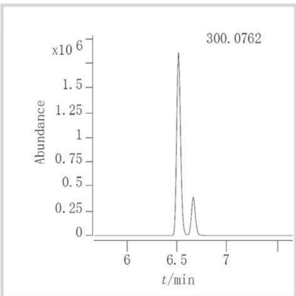

Fig C.93 phosphamidon EIC

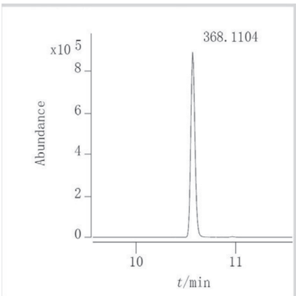

Fig C.94 picoxystrobin EIC

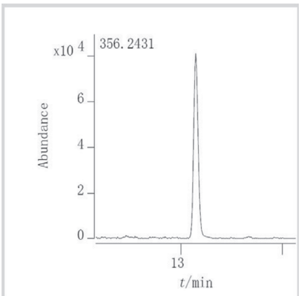

Fig C.95 piperonyl butoxide EIC

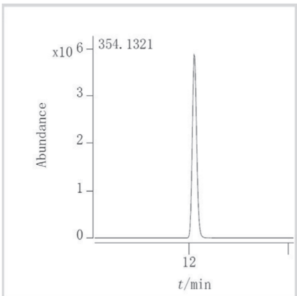

Fig C.96 piperophos EIC

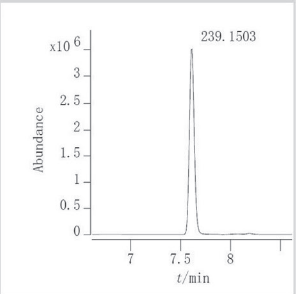

Fig C.97 pirimicarb EIC

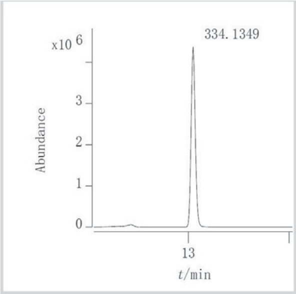

Fig C.98 pirimiphos-ethyl EIC

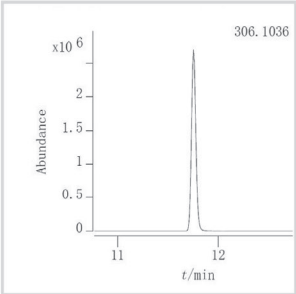

Fig C.99 pirimiphos-methyl EIC

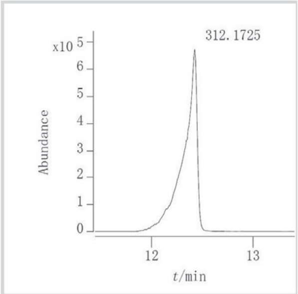

Fig C.100 pretilachlor EIC

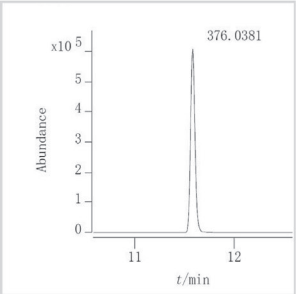

Fig C.101 prochloraz EIC

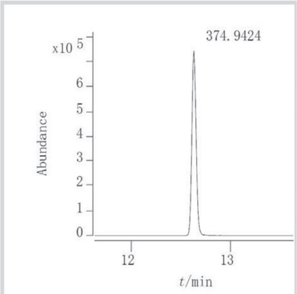

Fig C.102 profenofos EIC

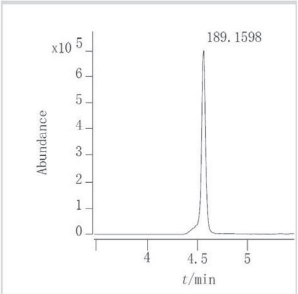

Fig C.103 propamocarb EIC

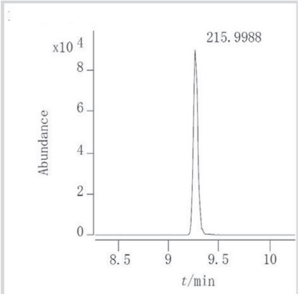

Fig C.104 propanil EIC

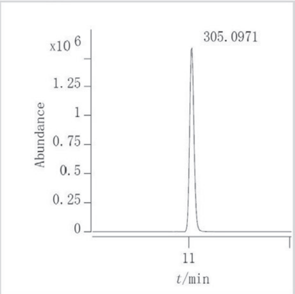

Fig C.105 propaphos EIC

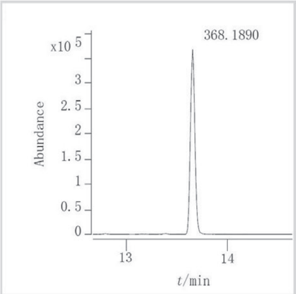

Fig C.106 propargite EIC

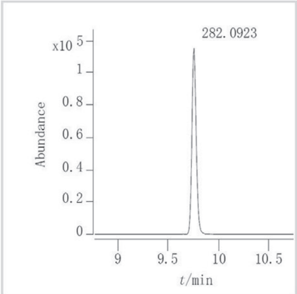

Fig C.107 propetamphos EIC

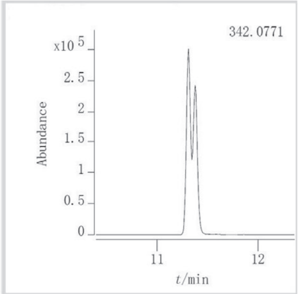

Fig C.108 propiconazole EIC

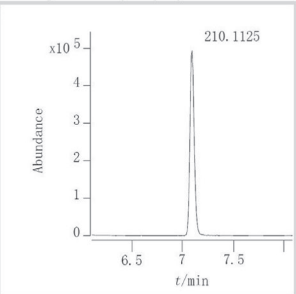

Fig C.109 propoxur EIC

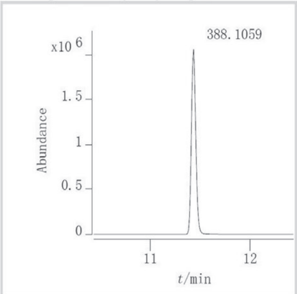

Fig C.110 pyraclostrobin EIC

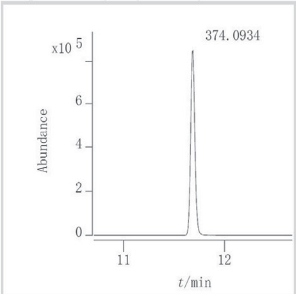

Fig C.111 pyrazophos EIC

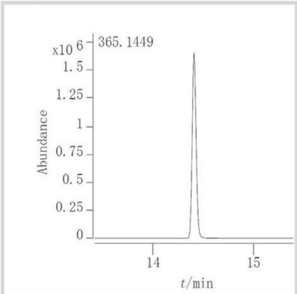

Fig C.112 pyridaben EIC

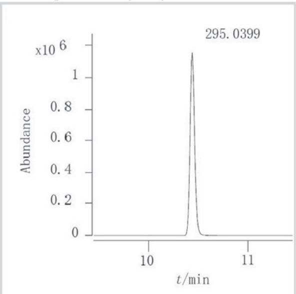

Fig C.113 pyrifenox EIC

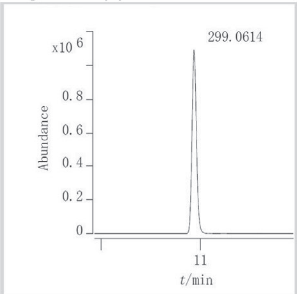

Fig C.114 quinalphos EIC

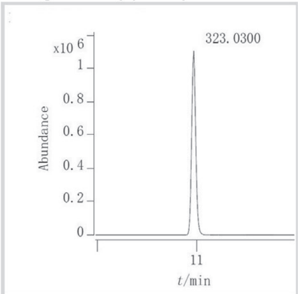

Fig C.115 sulfotep EIC

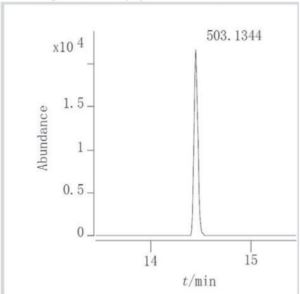

Fig C.116 tau-fluvalinate EIC

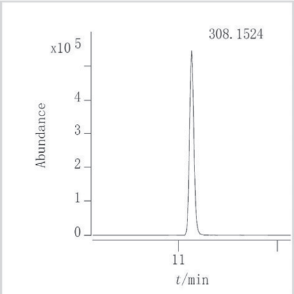

Fig C.117 tebuconazole EIC

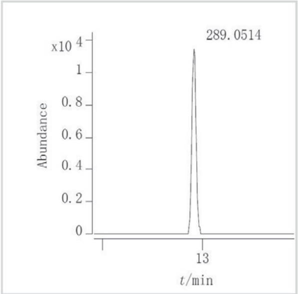

Fig C.118 terbufos EIC

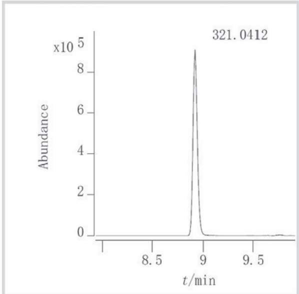

Fig C.119 terbufos sulfone EIC

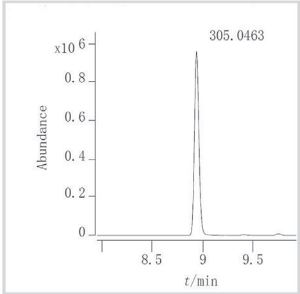

Fig C.120 terbufos sulfoxide EIC

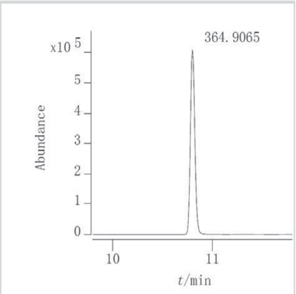

Fig C.121 tetrachlorvinphos EIC

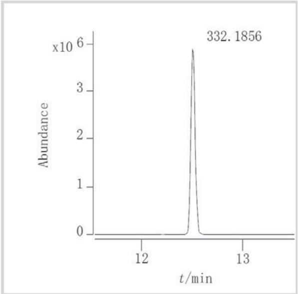

Fig C.122 tetramethrin EIC

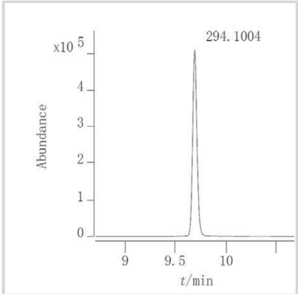

Fig C.123 triadimefon EIC

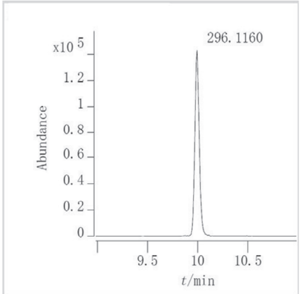

Fig C.124 triadimenol EIC

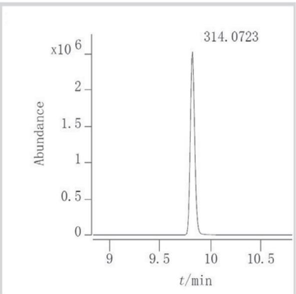

Fig C.125 triazophos EIC

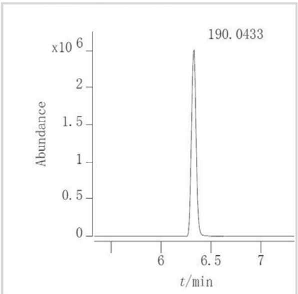

Fig C.126 tricyclazole EIC

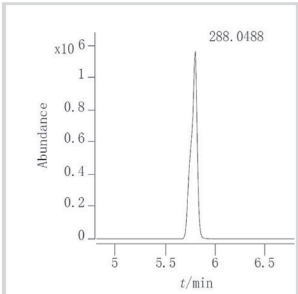

Fig C.127 vamidothion EIC

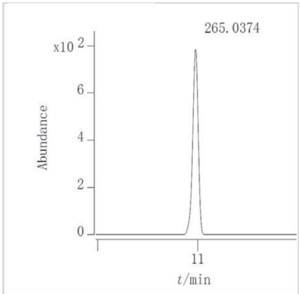

Fig C.128 aclonifen EIC

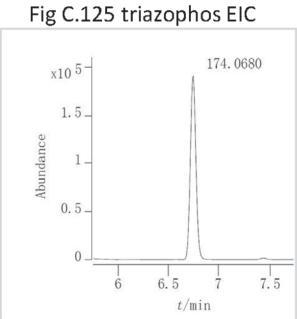

Fig C.129 allidochlor EIC

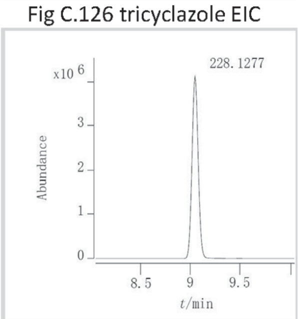

Fig C.130 ametryn EIC

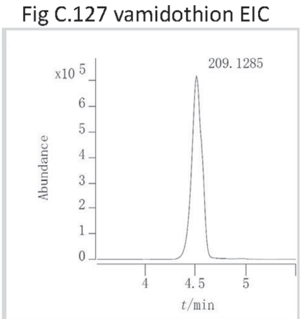

Fig C.131 aminocarb EIC

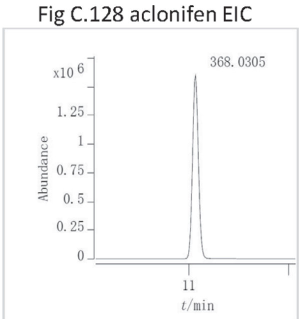

Fig C.132 anilofos EIC

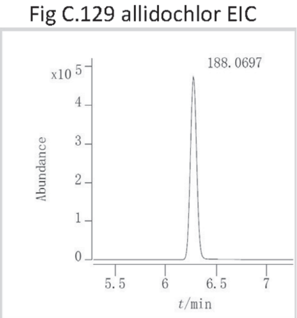

Fig C.133 atrazine-desethyl EIC

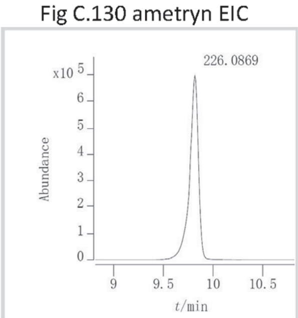

Fig C.134 aziprotryne EIC

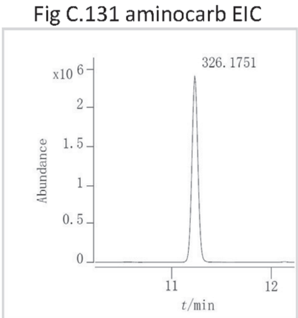

Fig C.135 benalaxyl EIC

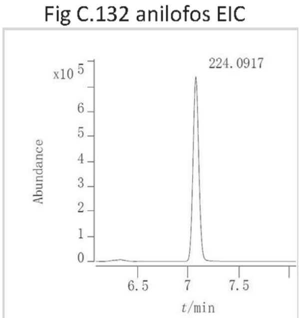

Fig C.136 bendiocarb EIC

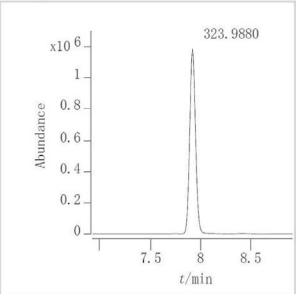

Fig C.137 benodanil EIC

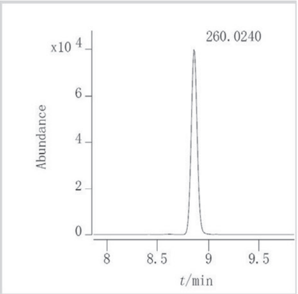

Fig C.138 benoxacor EIC

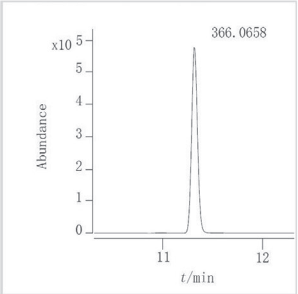

Fig C.139 benzoylprop-ethyl EIC

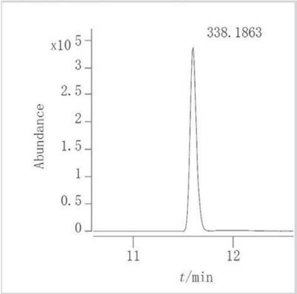

Fig C.140 bitertanol EIC

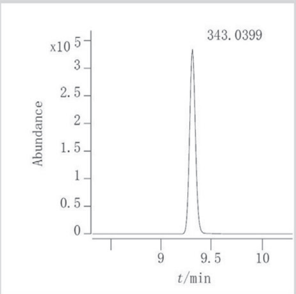

Fig C.141 boscalid EIC

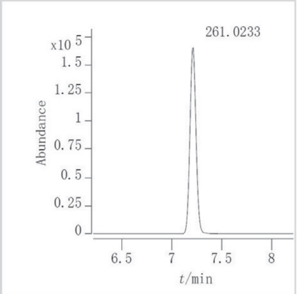

Fig C.142 bromacil EIC

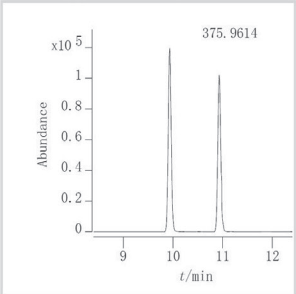

Fig C.143 bromuconazole EIC

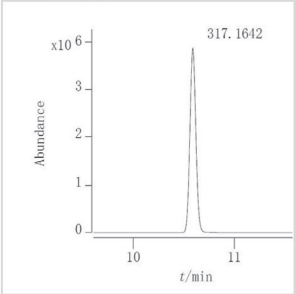

Fig C.144 bupirimate EIC

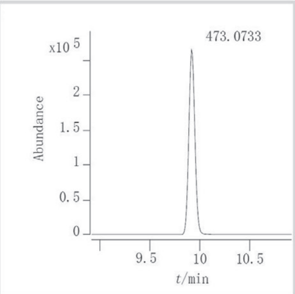

Fig C.145 butafenacil EIC

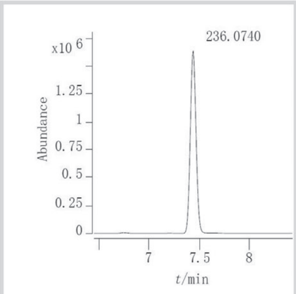

Fig C.146 carboxin EIC

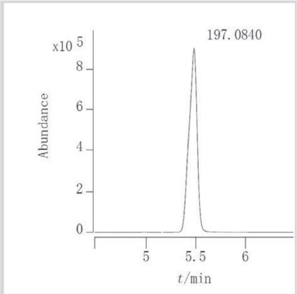

Fig C.147 chlordimeform EIC

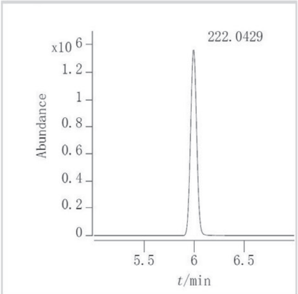

Fig C.148 chloridazon EIC

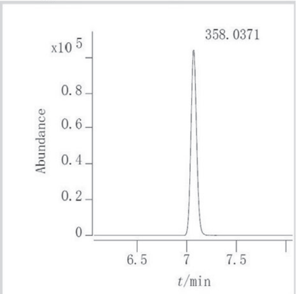

Fig C.149 chlorsulfuron EIC

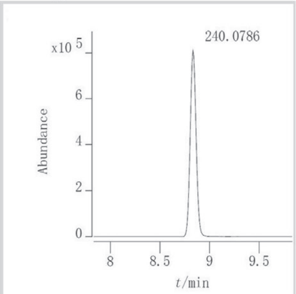

Fig C.150 clomazone EIC

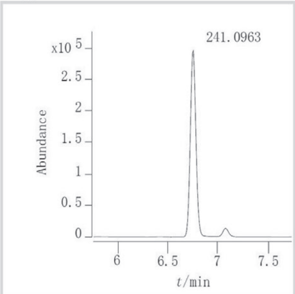

Fig C.151 cyanazine EIC

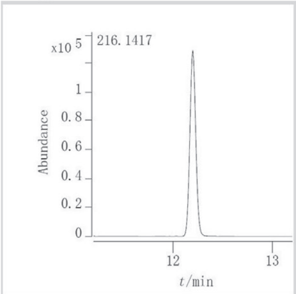

Fig C.152 cycloate EIC

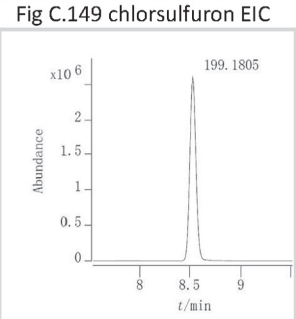

Fig C.153 cycluron EIC

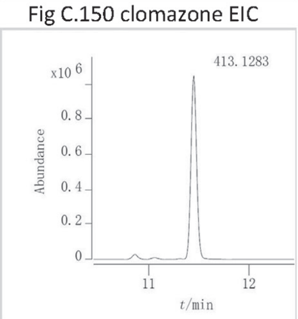

Fig C.154 cyflufenamid EIC

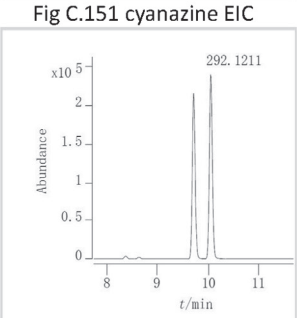

Fig C.155 cyproconazole EIC

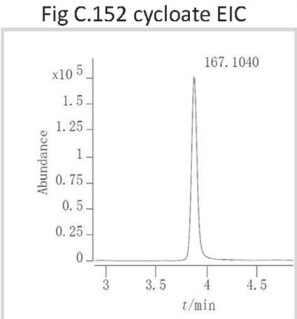

Fig C.156 cyromazine EIC

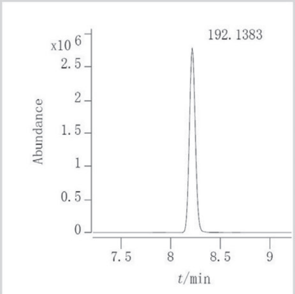

Fig C.157 diethyltoluamide EIC

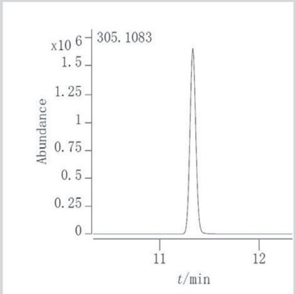

Fig C.158 diazinon EIC

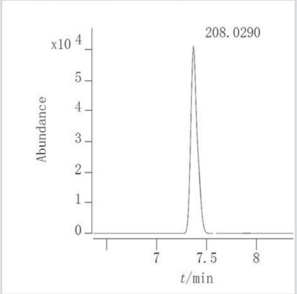

Fig C.159 dichlormid EIC

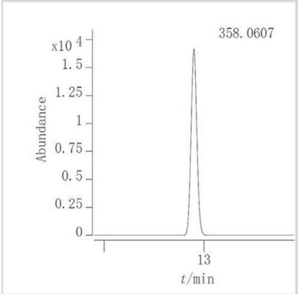

Fig C.160 diclofop-methyl EIC

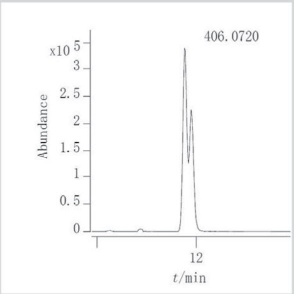

Fig C.161 difenoconazole EIC

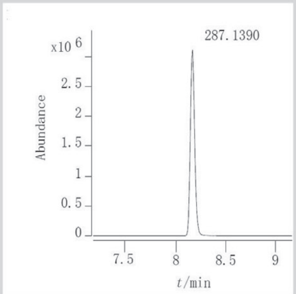

Fig C.162 difenoxuron EIC

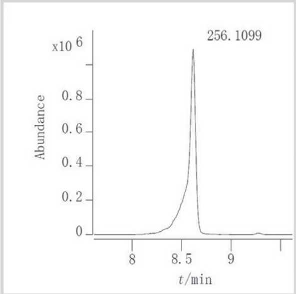

Fig C.163 dimethachlor EIC

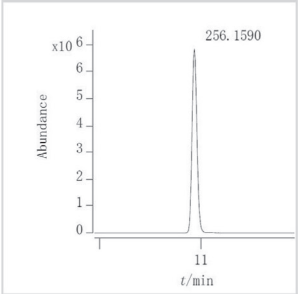

Fig C.164 dimethametryn EIC

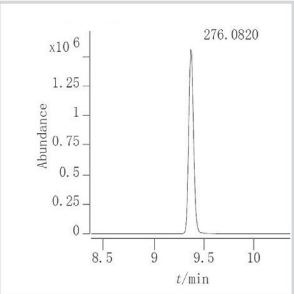

Fig C.165 dimethenamid EIC

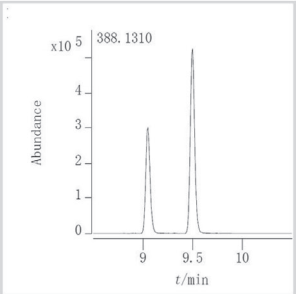

Fig C.166 dimethomorph EIC

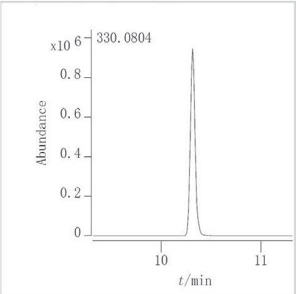

Fig C.167 epoxiconazole EIC

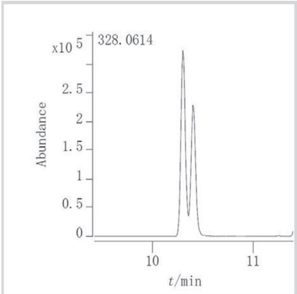

Fig C.168 etaconazole EIC

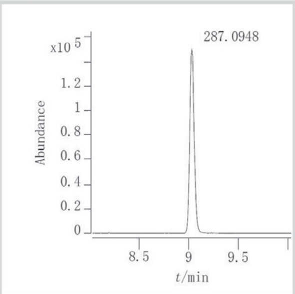

Fig C.169 ethofumesate EIC

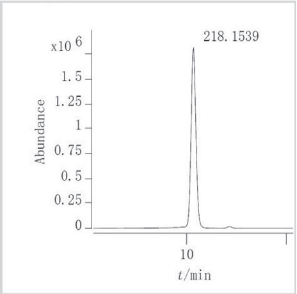

Fig C.170 ethoxyquin EIC

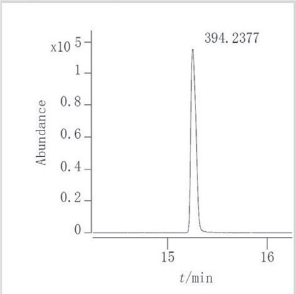

Fig C.171 etofenprox EIC

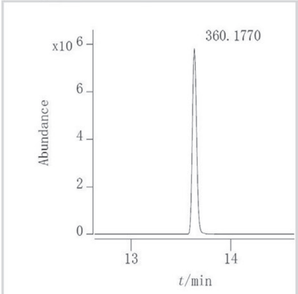

Fig C.172 etoxazole EIC

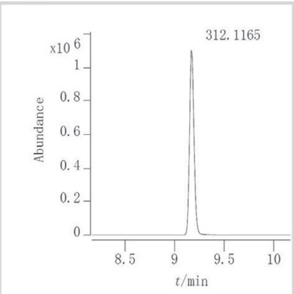

Fig C.173 fenamidone EIC

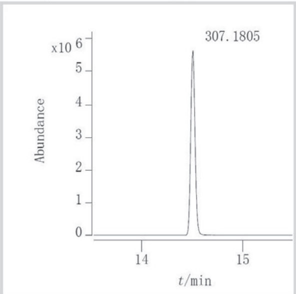

Fig C.174 fenazaquin EIC

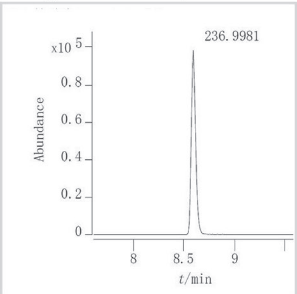

Fig C.175 fenpiclonil EIC

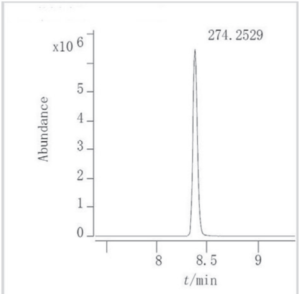

Fig C.176 fenpropidin EIC

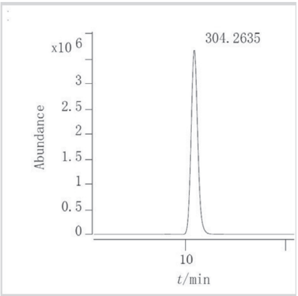

Fig C.177 fenpropimorph EIC

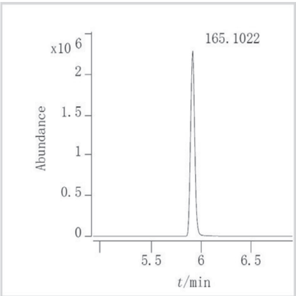

Fig C.178 fenuron EIC

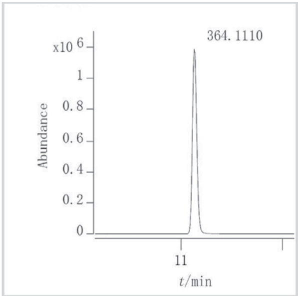

Fig C.179 flamprop-isopropyl EIC

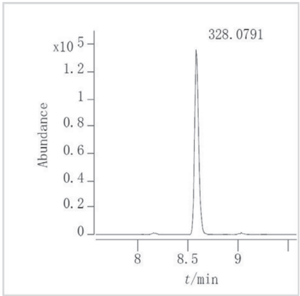

Fig C.180 fluazifop-p-butyl EIC

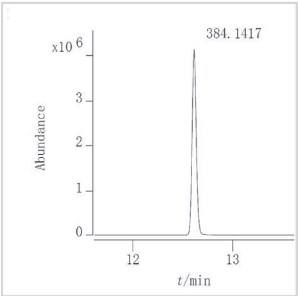

Fig C.181 fluazifop-butyl EIC

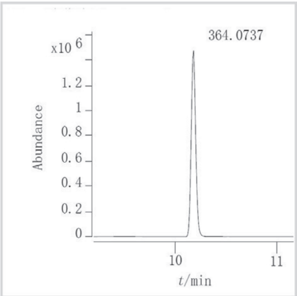

Fig C.182 flufenacet EIC

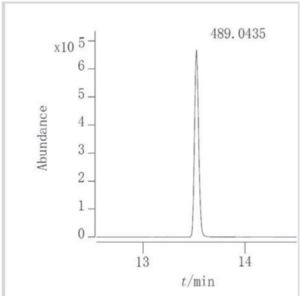

Fig C.183 flufenoxuron EIC

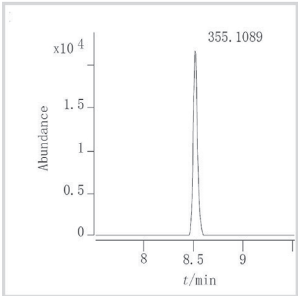

Fig C.184 flumioxazin EIC

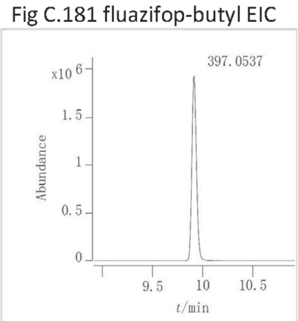

Fig C.185 fluopyram EIC

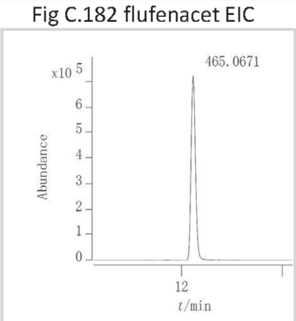

Fig C.186 fluoroglycofen-ethyl EIC

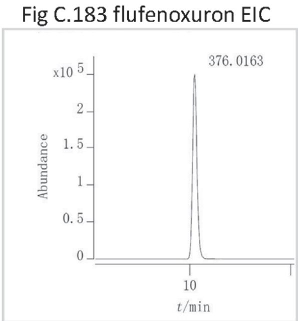

Fig C.187 fluquinconazole EIC

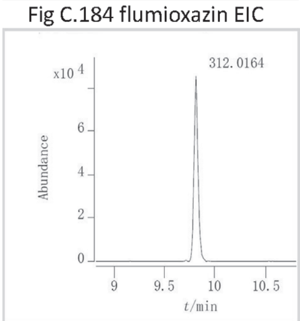

Fig C.188 flurochloridone EIC

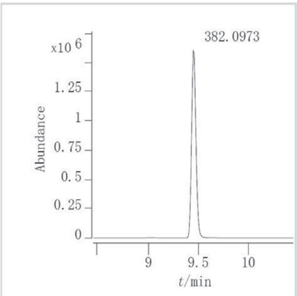

Fig C.189 fluxapyroxad EIC

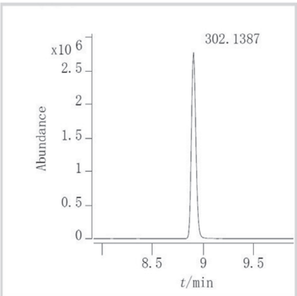

Fig C.190 furalaxyl EIC

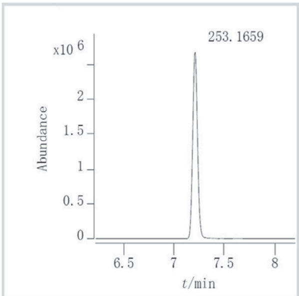

Fig C.191 hexazinone EIC

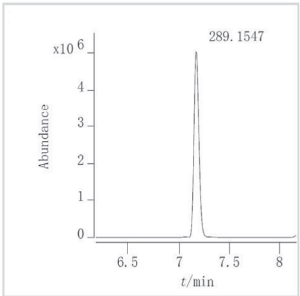

Fig C.192 imazamethabenz-methyl EIC

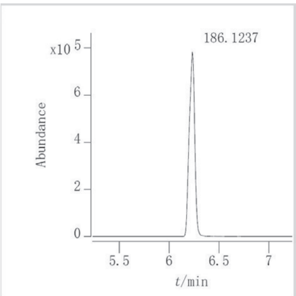

Fig C.193 isocarbamide EIC

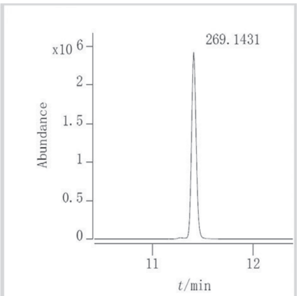

Fig C.194 isomethiozin EIC

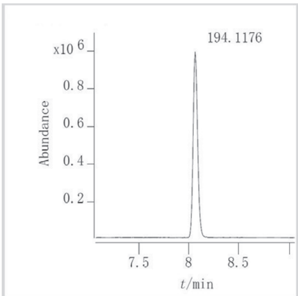

Fig C.195 isoprocarb EIC

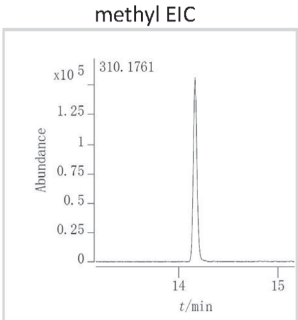

Fig C.196 isopropalin EIC

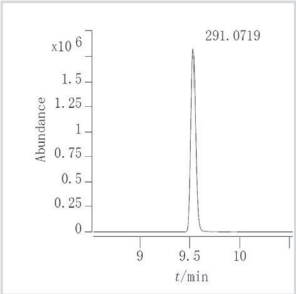

Fig C.197 isoprothiolane EIC

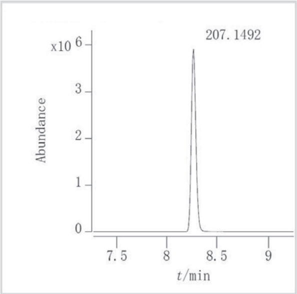

Fig C.198 isoproturon EIC

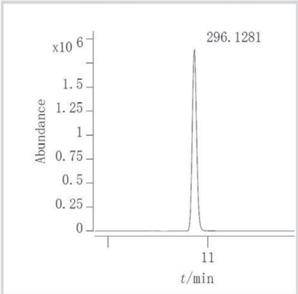

Fig C.199 isoxadifen-ethyl EIC

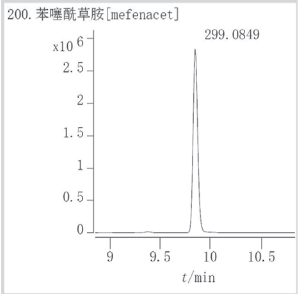

Fig C.200 mefenacet EIC

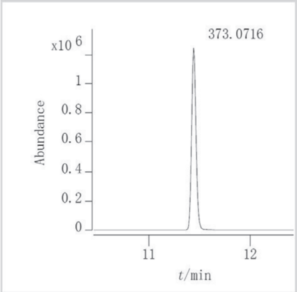

Fig C.201 mefenpyr-diethyl EIC

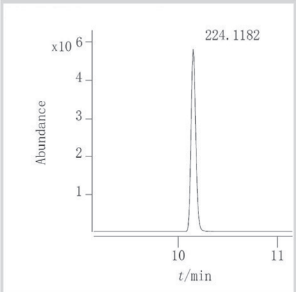

Fig C.202 mepanipyrim EIC

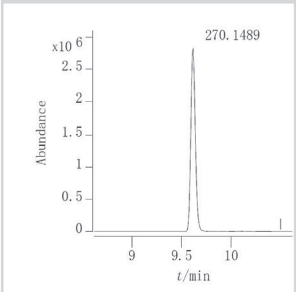

Fig C.203 mepronil EIC

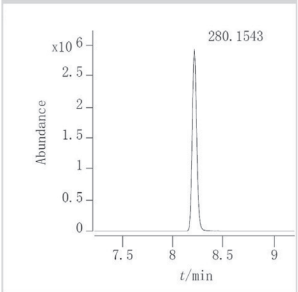

Fig C.204 metalaxyl EIC

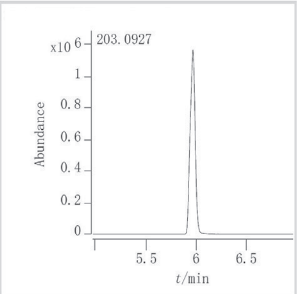

Fig C.205 metamitron EIC

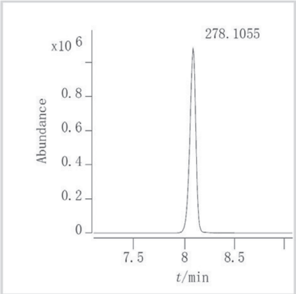

Fig C.206 metazachlor EIC

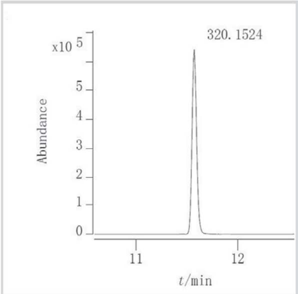

Fig C.207 metconazole EIC

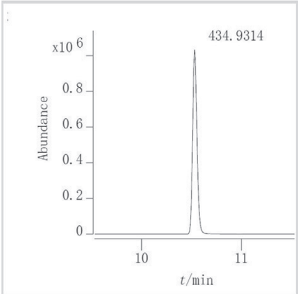

Fig C.208 fipronil EIC

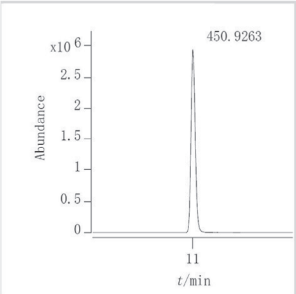

Fig C.209 fipronil sulfone EIC

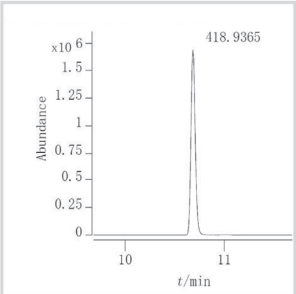

Fig C.210 fipronil sulfoxide EIC

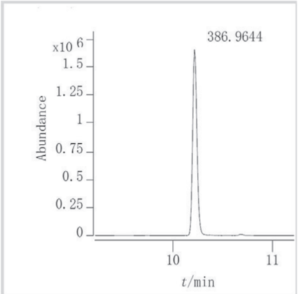

Fig C.211 fipronil desulfinyl EIC

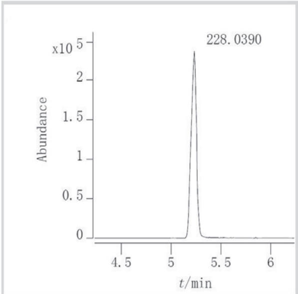

Fig C.212 flonicamid EIC

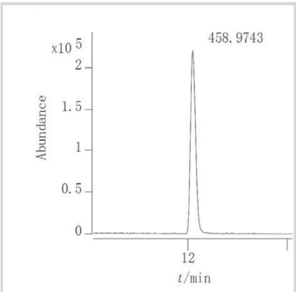

Fig C.213 hexaflumuron EIC

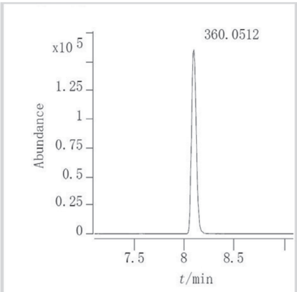

Fig C.214 isoxaflutole EIC

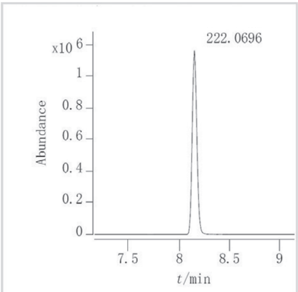

Fig C.215 methabenzthiazuron EIC

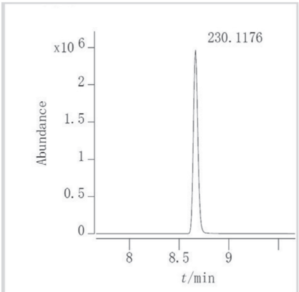

Fig C.216 methfuroxam EIC

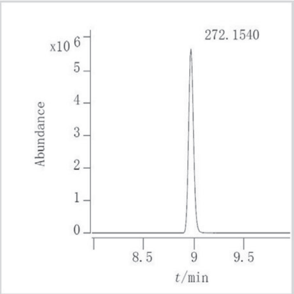

Fig C.217 methoprotryne EIC

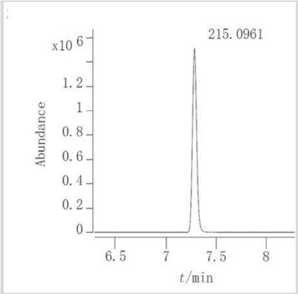

Fig C.218 metribuzin EIC

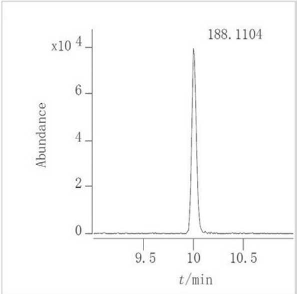

Fig C.219 molinate EIC

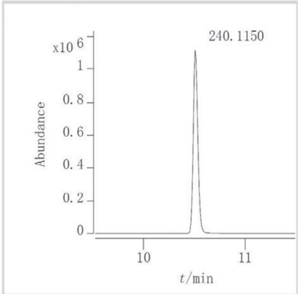

Fig C.220 monalide EIC

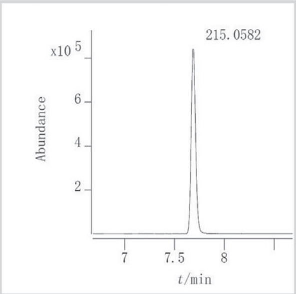

Fig C.221 monolinuron EIC

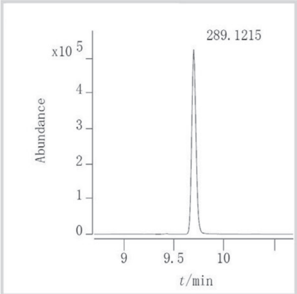

Fig C.222 myclobutanil EIC

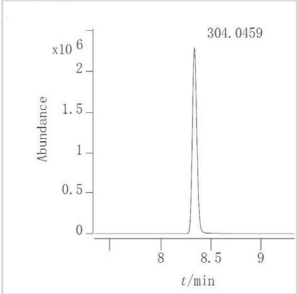

Fig C.223 norflurazon EIC

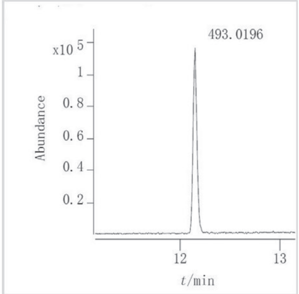

Fig C.224 novaluron EIC

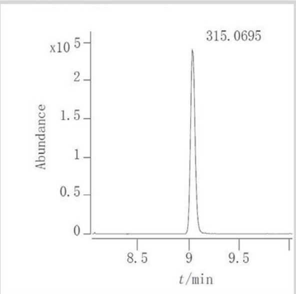

Fig C.225 nuarimol EIC

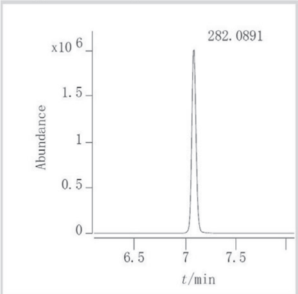

Fig C.226 ofurace EIC

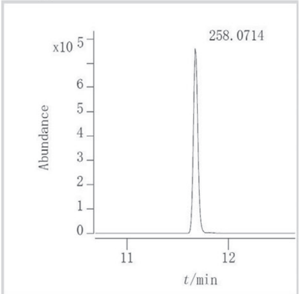

Fig C.227 orbencarb EIC

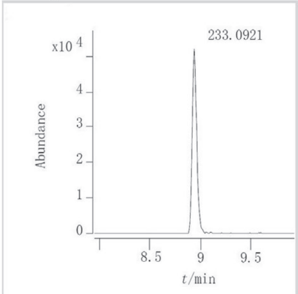

Fig C.228 oxabetrinil EIC

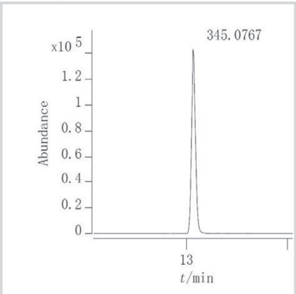

Fig C.229 oxadiazon EIC

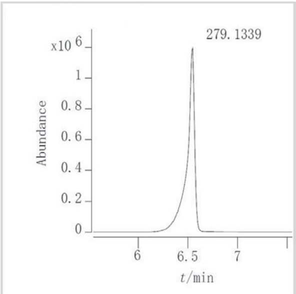

Fig C.230 oxadixyl EIC

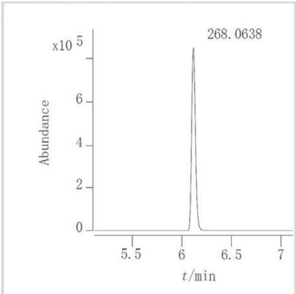

Fig C.231 oxycarboxin EIC

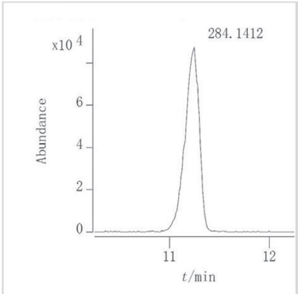

Fig C.232 propisochlor EIC

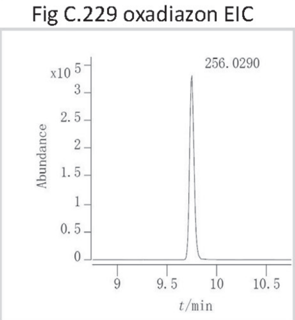

Fig C.233 propyzamide EIC

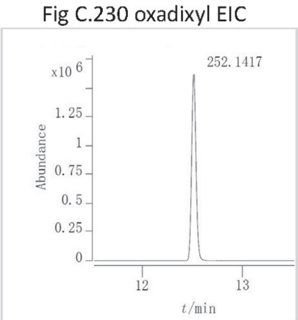

Fig C.234 prosulfocarb EIC

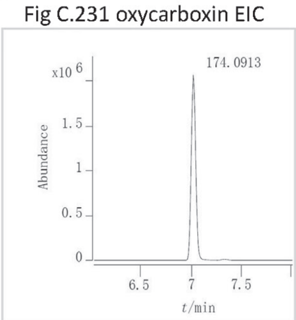

Fig C.235 pyroquilon EIC

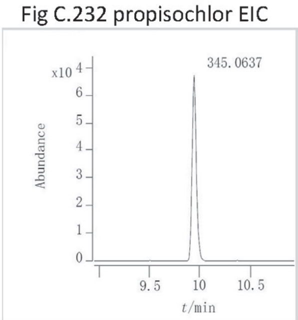

Fig C.236 quizalofop EIC

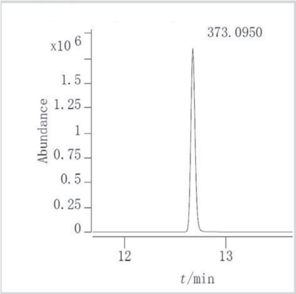

Fig C.237 quizalofop-ethyl EIC

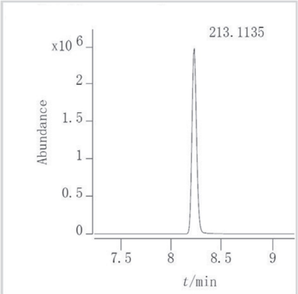

Fig C.238 rabenzazole EIC

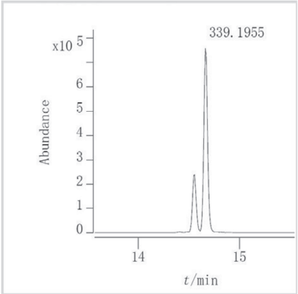

Fig C.239 resmethrin EIC

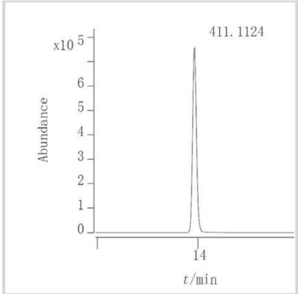

Fig C.240 spirodiclofen EIC

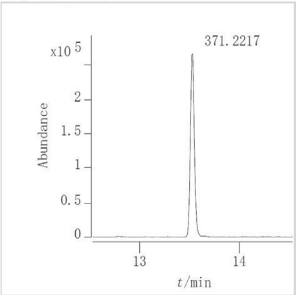

Fig C.241 spiromesifen EIC

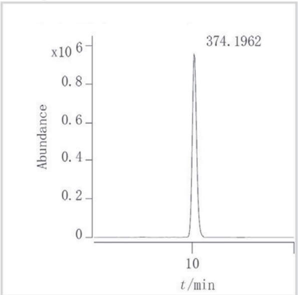

Fig C.242 spirotetramat EIC

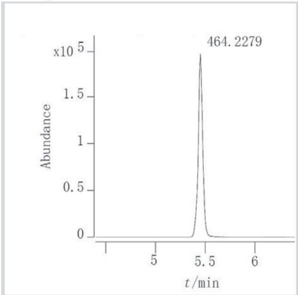

Fig C.243 spirotetramate-enol-glukosid EIC

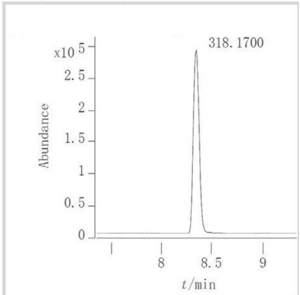

Fig C.244 spirotetramate-keto-hydroxy EIC

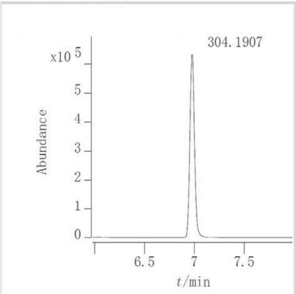

Fig C.245 spirotetramate-mono-hydroxy EIC

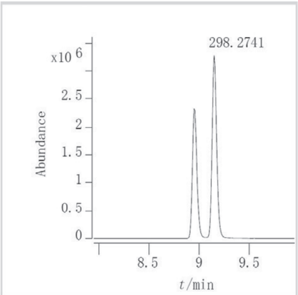

Fig C.246 spiroxamine EIC

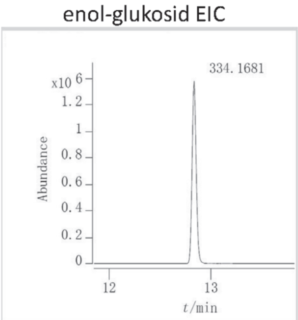

Fig C.247 tebufenpyrad EIC

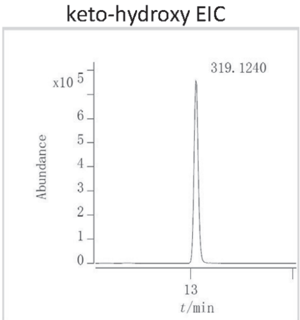

Fig C.248 tebupirimfos EIC

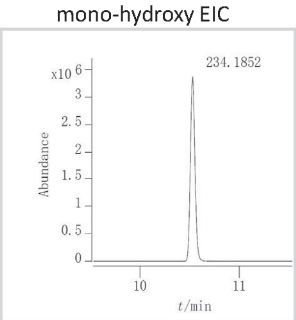

Fig C.249 tebutam EIC

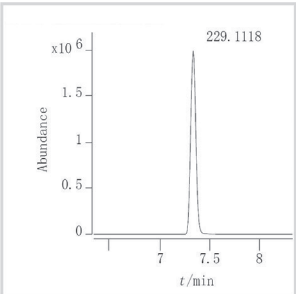

Fig C.250 tebuthiuron EIC

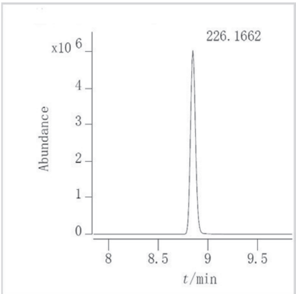

Fig C.251 terbumeton EIC

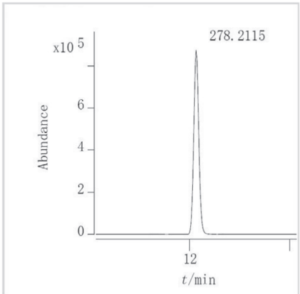

Fig C.252 terbucarb EIC

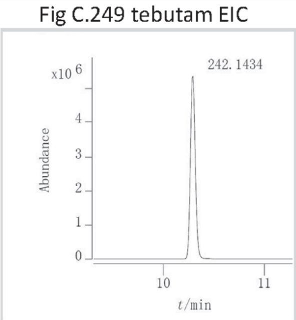

Fig C.253 terbutryn EIC

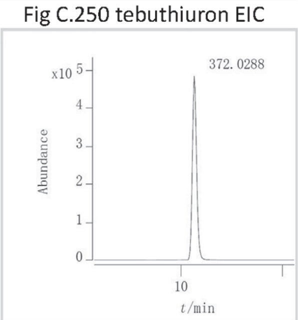

Fig C.254 tetraconazole EIC

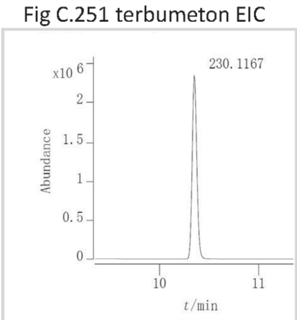

Fig C.255 trietazine EIC

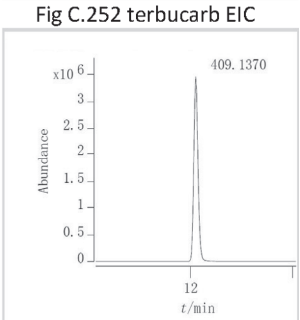

Fig C.256 trifloxystrobin EIC

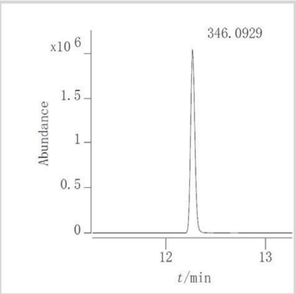

Fig C.257 triflumizole EIC

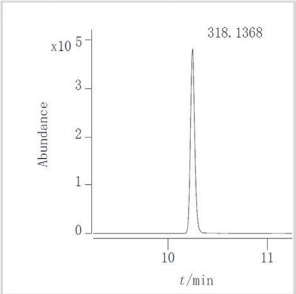

Fig C.258 triticonazole EIC

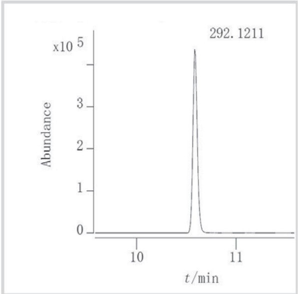

Fig C.259 uniconazole EIC

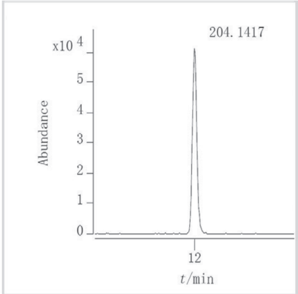

Fig C.260 vernolate EIC

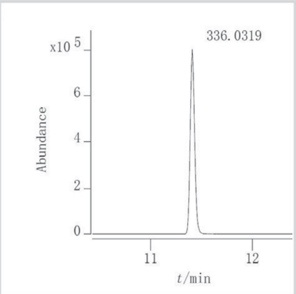

Fig C.261 zoxamide EIC

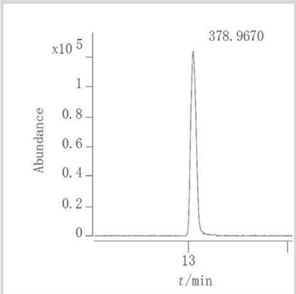

Fig C.262 teflubenzuron EIC

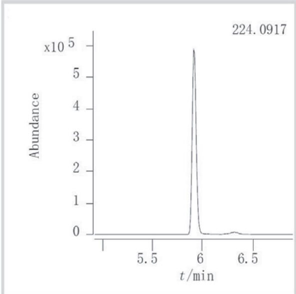

Fig C.263 dioxacarb EIC

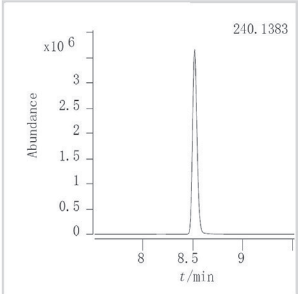

Fig C.264 diphenamid EIC

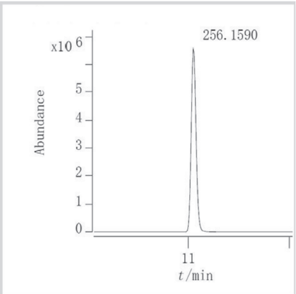

Fig C.265 dipropetryn EIC

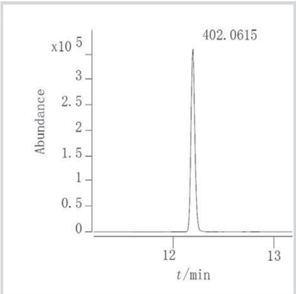

Fig C.266 dithiopyr EIC

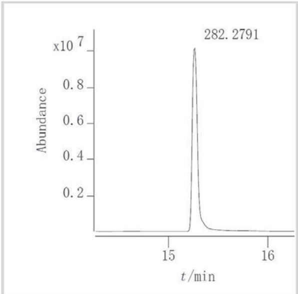

Fig C.267 dodemorph EIC

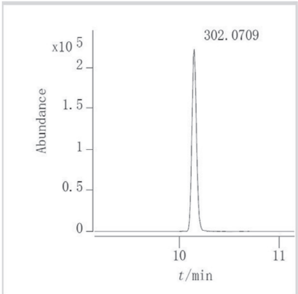

Fig C.268 fenhexamid EIC

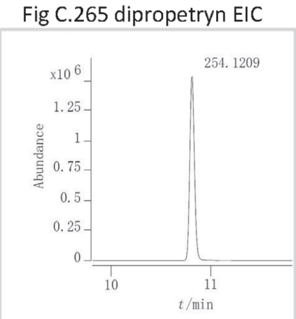

Fig C.269 fenothiocarb EIC

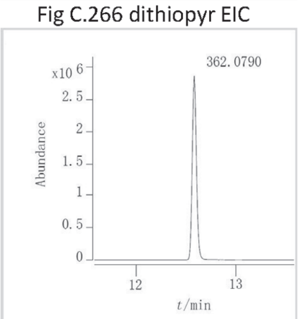

Fig C.270 fenoxaprop-ethyl EIC

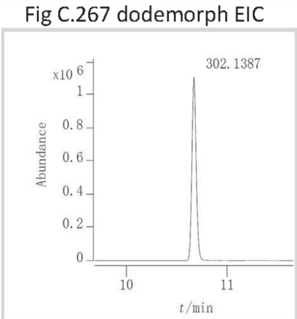

Fig C.271 fenoxycarb EIC

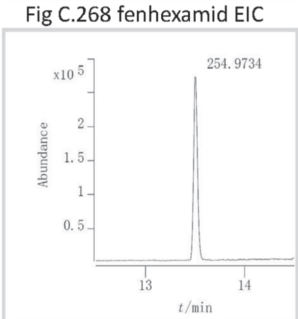

Fig C.272 fluroxypyr EIC

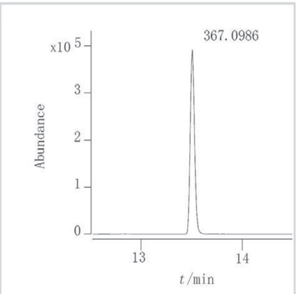

Fig C.273 fluroxypyr-meptyl EIC

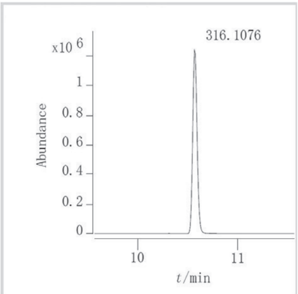

Fig C.274 flusilazole EIC

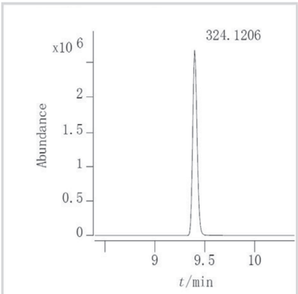

Fig C.275 flutolanil EIC

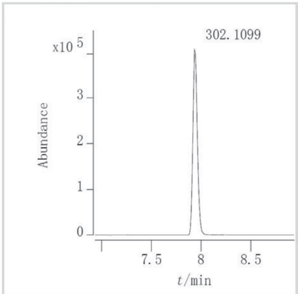

Fig C.276 flutriafol EIC

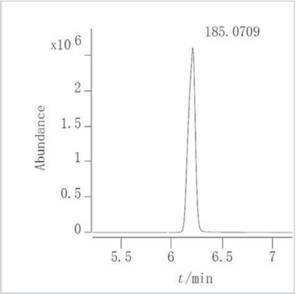

Fig C.277 fuberidazole EIC

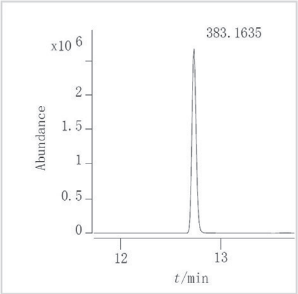

Fig C.278 furathiocarb EIC

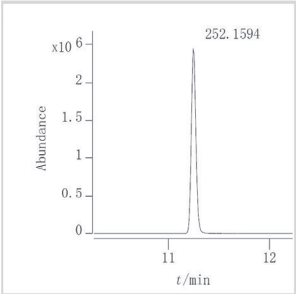

Fig C.279 furmecyclox EIC

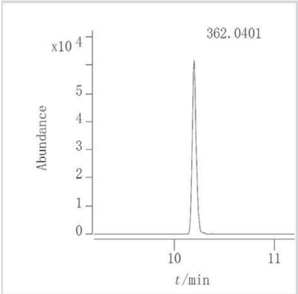

Fig C.280 haloxyfop EIC

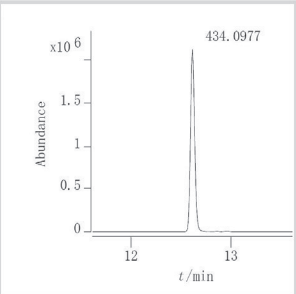

Fig C.281 haloxyfop-P-methyl EIC

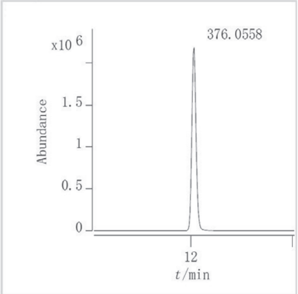

Fig C.282 haloxyfop-methyl EIC

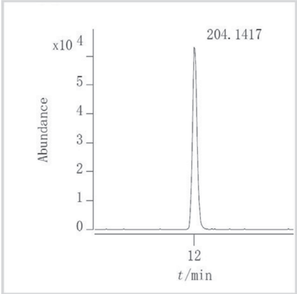

Fig C.283 pebulate EIC

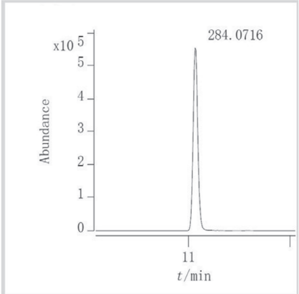

Fig C.284 penconazole EIC

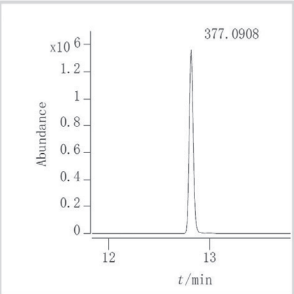

Fig C.285 picolinafen EIC

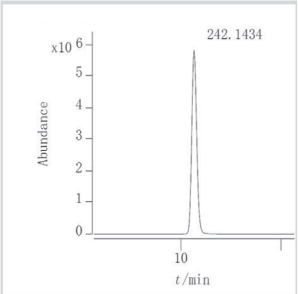

Fig C.286 prometryn EIC

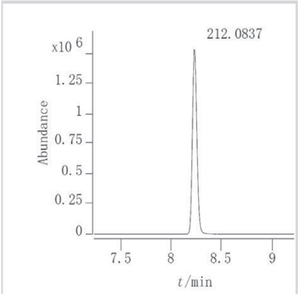

Fig C.287 propachlor EIC

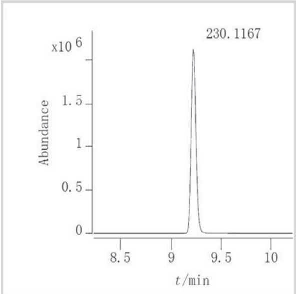

Fig C.288 propazine EIC

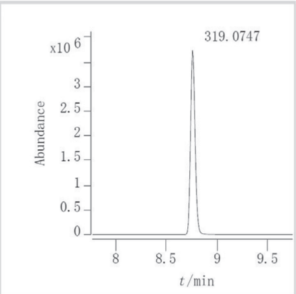

Fig C.289 pyriftalid EIC

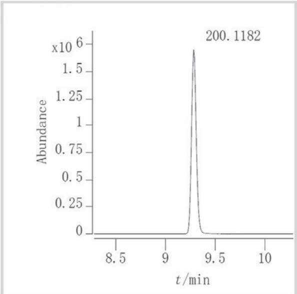

Fig C.290 pyrimethanil EIC

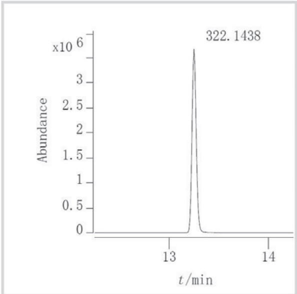

Fig C.291 pyriproxyfen EIC

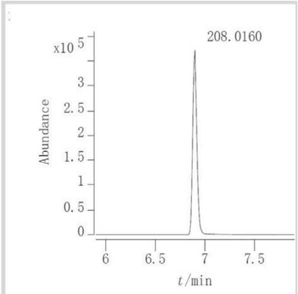

Fig C.292 quinoclamine EIC

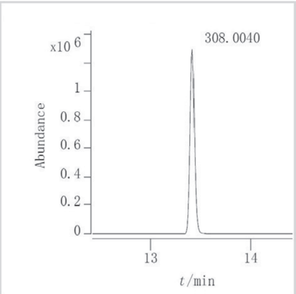

Fig C.293 quinoxyfen EIC

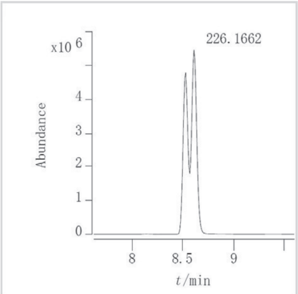

Fig C.294 secbumeton EIC

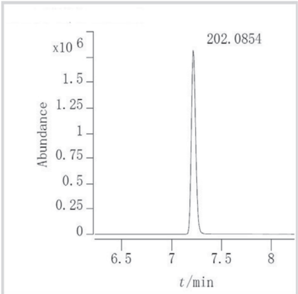

Fig C.295 simazine EIC

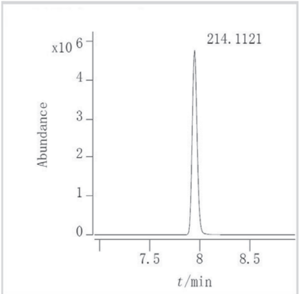

Fig C.296 simetryn EIC

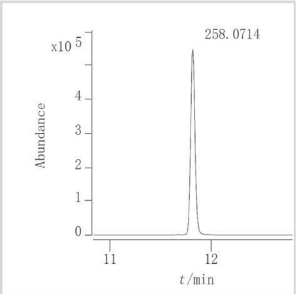

Fig C.297 thiobencarb EIC

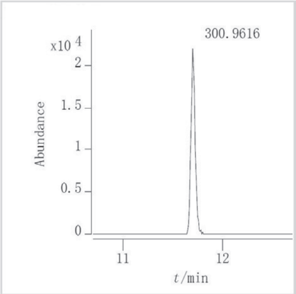

Fig C.298 tolclofos-methyl EIC

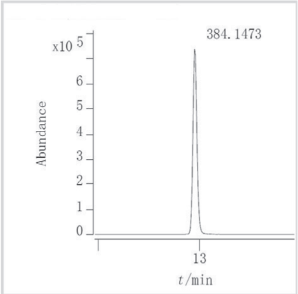

Fig C.299 tolfenpyrad EIC

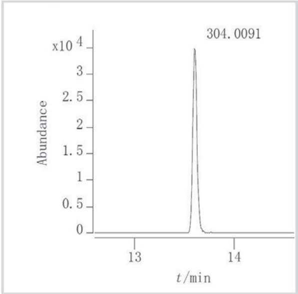

Fig C.300 triallate EIC

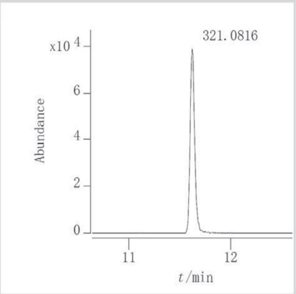

Fig C.301 dinitramine EIC

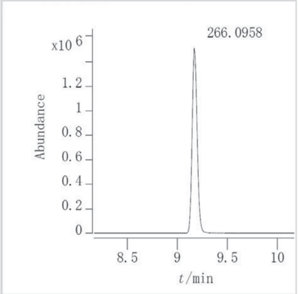

Fig C.302 albendazole EIC

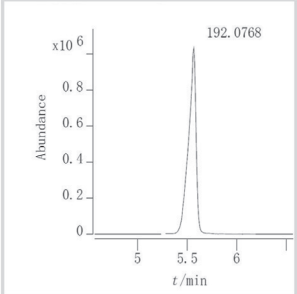

Fig C.303 carbendazim EIC

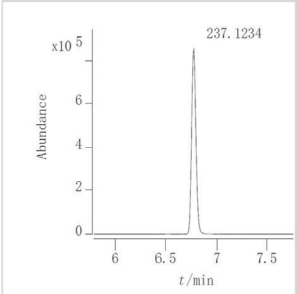

Fig C.304 carbetamide EIC

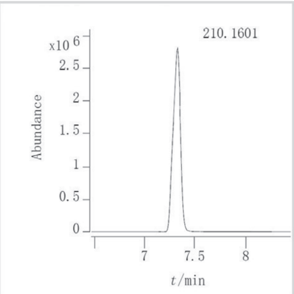

Fig C.305 dimethirimol EIC

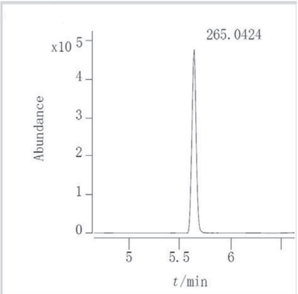

Fig C.306 ethidimuron EIC

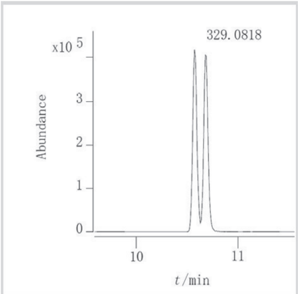

Fig C.307 fenoxanil EIC

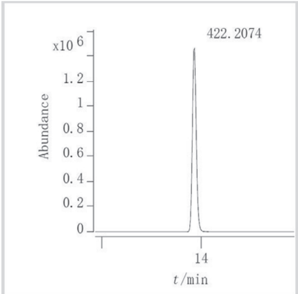

Fig C.308 fenpyroximate EIC

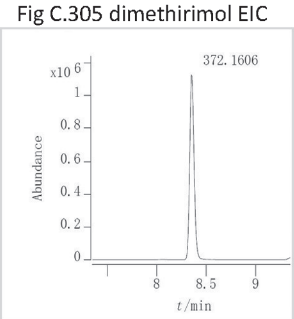

Fig C.309 flumorph EIC

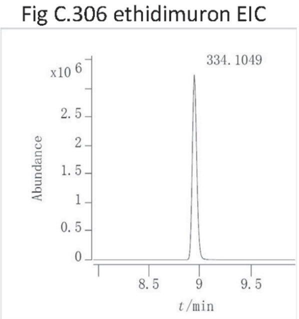

Fig C.310 flurtamone EIC

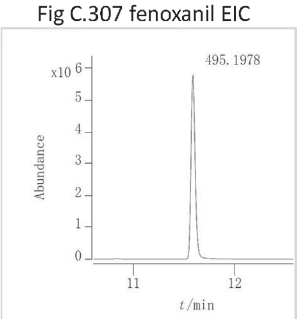

Fig C.311 hydramethylnon EIC

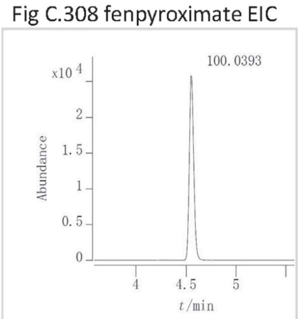

Fig C.312 hymexazol EIC

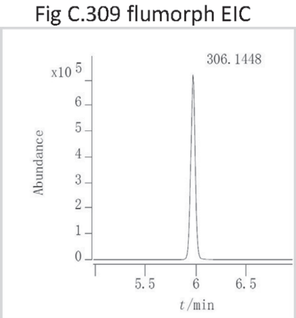

Fig C.313 imazamox EIC

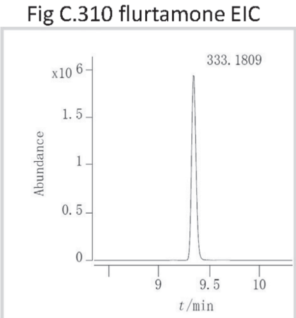

Fig C.314 isoxaben EIC

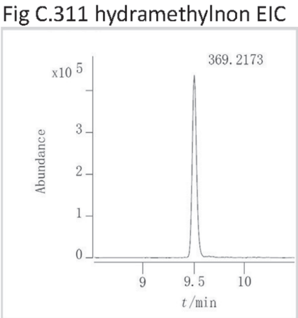

Fig C.315 methoxyfenozide EIC

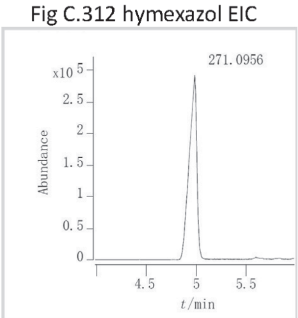

Fig C.316 nitenpyram EIC

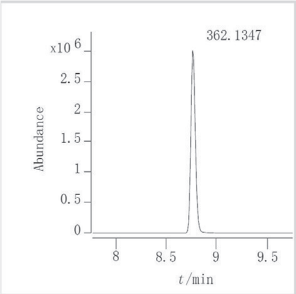

Fig C.317 pyriminobac-methyl EIC

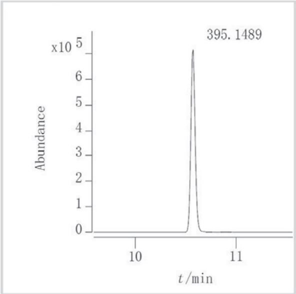

Fig C.318 rotenone EIC

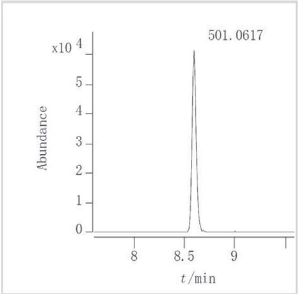

Fig C.319 saflufenacil EIC

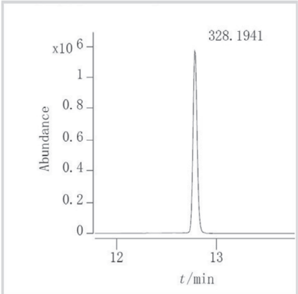

Fig C.320 sethoxydim EIC

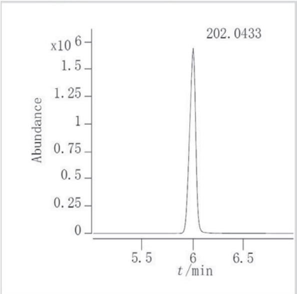

Fig C.321 thiabendazole EIC

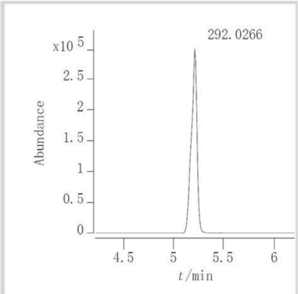

Fig C.322 thiamethoxam EIC

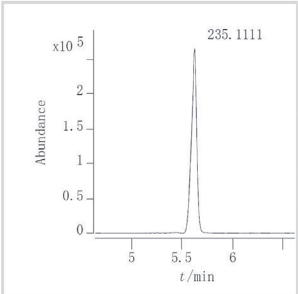

Fig C.323 thiofanox sulfoxide EIC

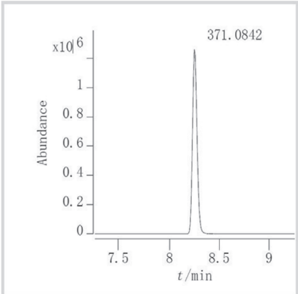

Fig C.324 thiophanate EIC

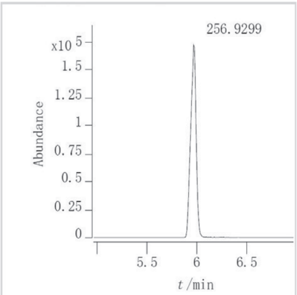

Fig C.325 trichlorfon EIC

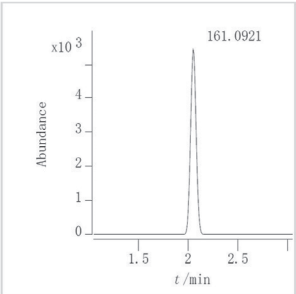

Fig C.326 daminozide EIC

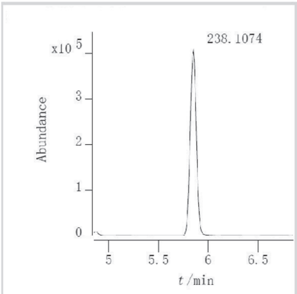

Fig C.327 3-hydroxy-carbofuran EIC

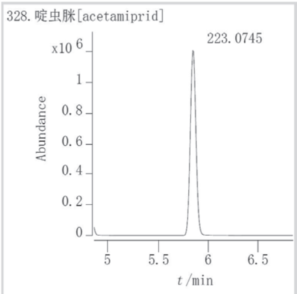

Fig C.328 acetamiprid EIC

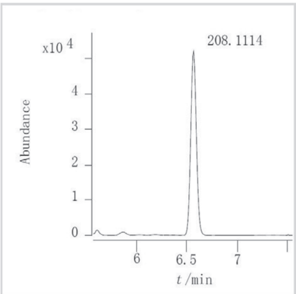

Fig C.329 aldicarb EIC

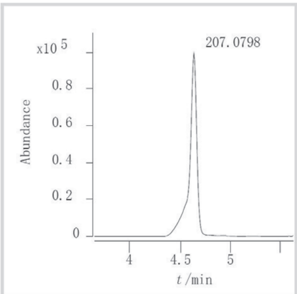

Fig C.330 aldicarb-sulfoxide EIC

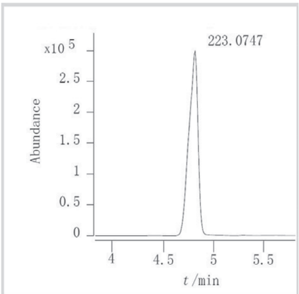

Fig C.331 aldicarb-sulfone EIC

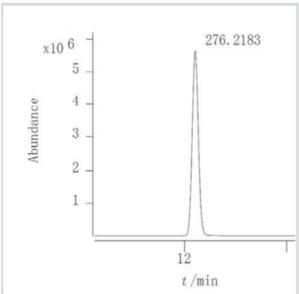

Fig C.332 ametoctradin

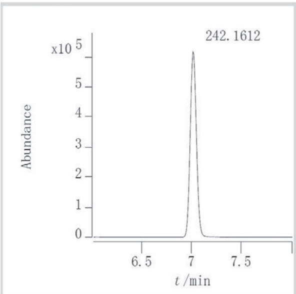

Fig C.333 amicarbazone EIC

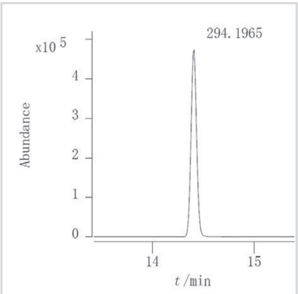

Fig C.334 amitraz EIC

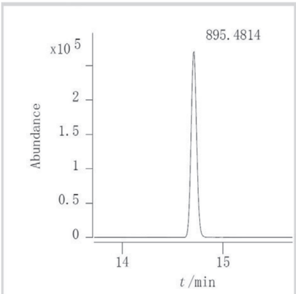

Fig C.335 abamectin B1a EIC

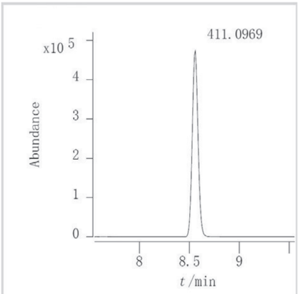

Fig C.336 bensulfuron-methyl EIC

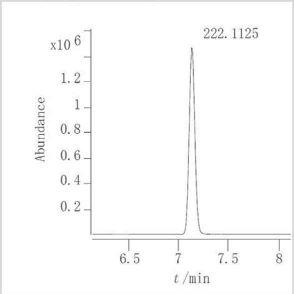

Fig C.337 carbofuran EIC

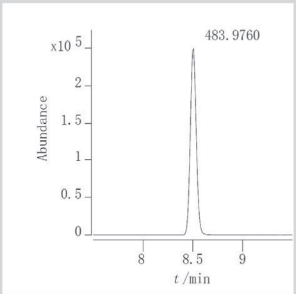

Fig C.338 chlorantraniliprole EIC

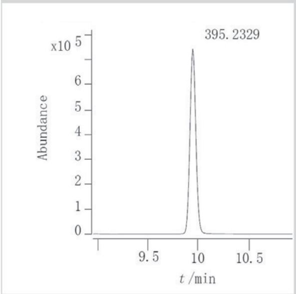

Fig C.339 chromafenozide EIC

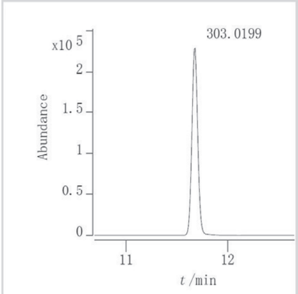

Fig C.340 clofentezine EIC

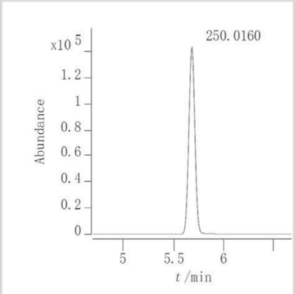

Fig C.341 clothianidin EIC

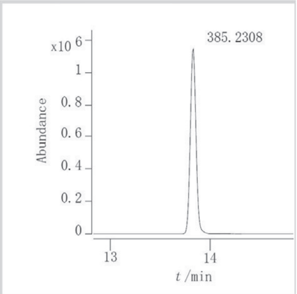

Fig C.342 diafenthiuron EIC

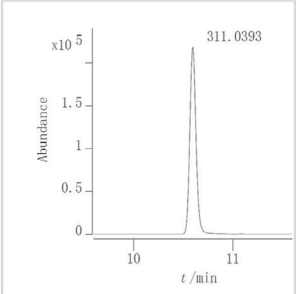

Fig C.343 diflubenzuron EIC

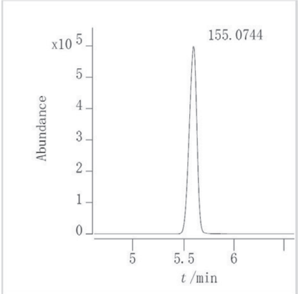

Fig C.344 dimefox EIC

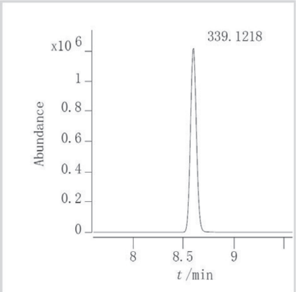

Fig C.345 dimefuron EIC

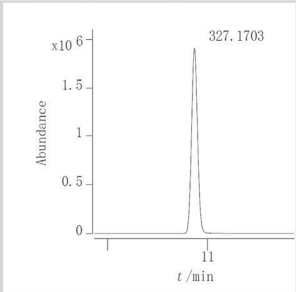

Fig C.346 dimoxystrobin EIC

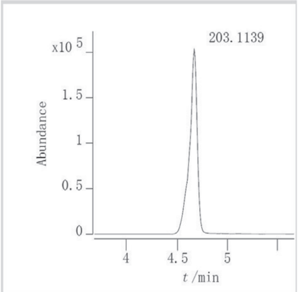

Fig C.347 dinotefuran EIC

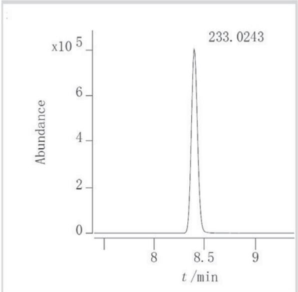

Fig C.348 diuron EIC

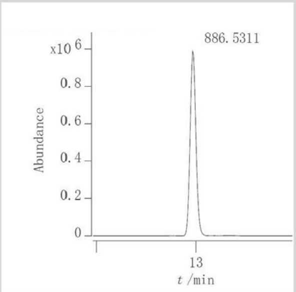

Fig C.349 emamectin benzoate B1a EIC

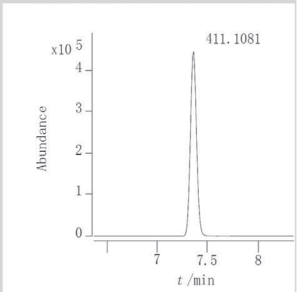

Fig C.350 ethametsulfuron-methyl EIC

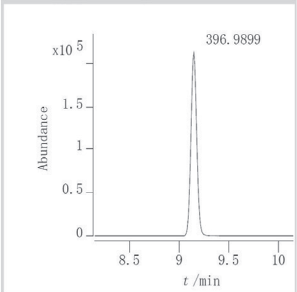

Fig C.351 ethiprole EIC

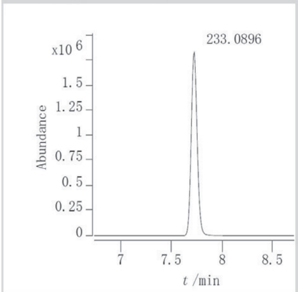

Fig C.352 fluometuron EIC

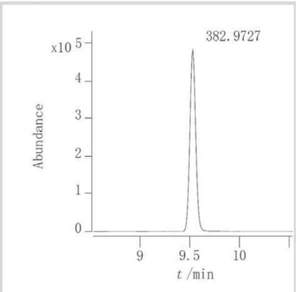

Fig C.353 fluopicolide EIC

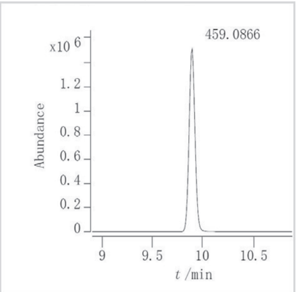

Fig C.354 fluoxastrobin EIC

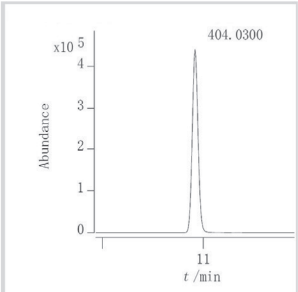

Fig C.355 fluthiacet-methyl EIC

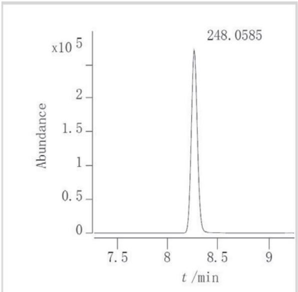

Fig C.356 forchlorfenuron EIC

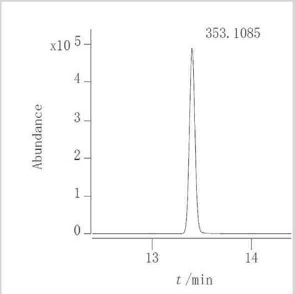

Fig C.357 hexythiazox EIC

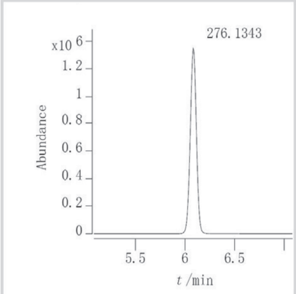

Fig C.358 imazapic EIC

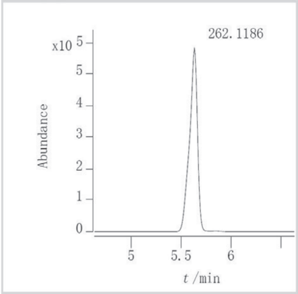

Fig C.359 imazapyr EIC

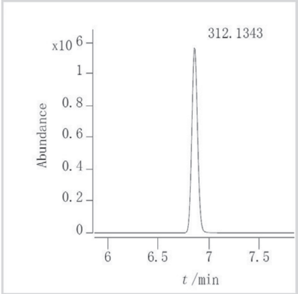

Fig C.360 imazaquin EIC

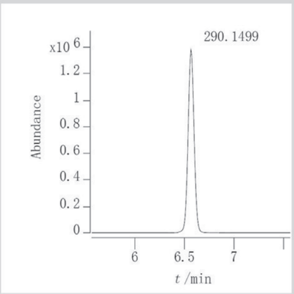

Fig C.361 imazethapyr EIC

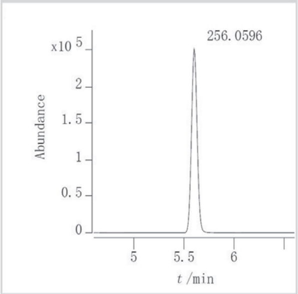

Fig C.362 imidacloprid EIC

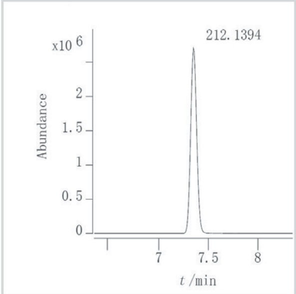

Fig C.363 isouron EIC

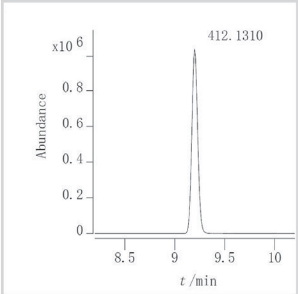

Fig C.364 mandipropamid EIC

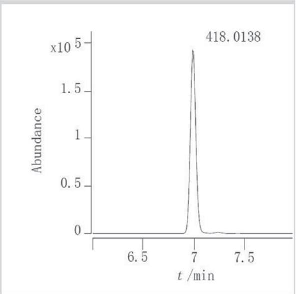

Fig C.365 metosulam EIC

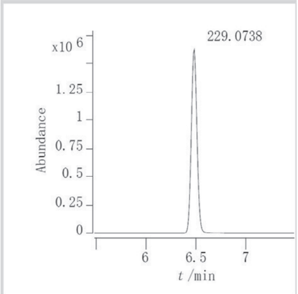

Fig C.366 metoxuron EIC

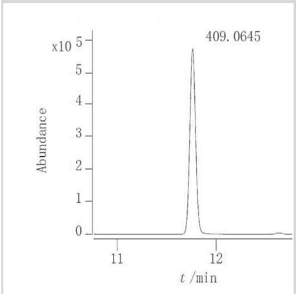

Fig C.367 metrafenone EIC

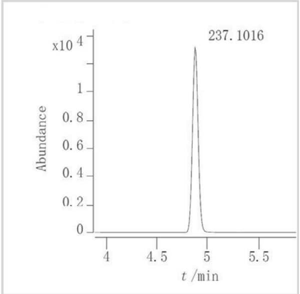

Fig C.368 oxamyl EIC

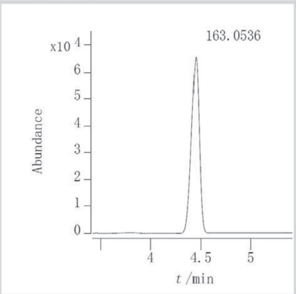

Fig C.369 oxamyl-oxime EIC

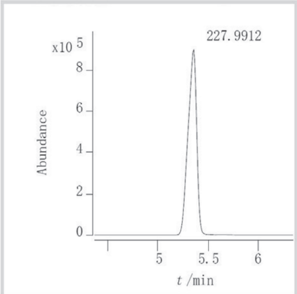

Fig C.370 phosfolan-methyl EIC

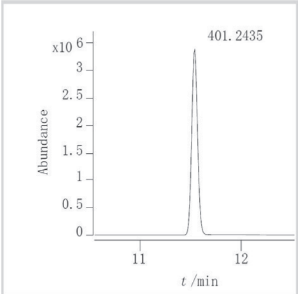

Fig C.371 pinoxaden EIC

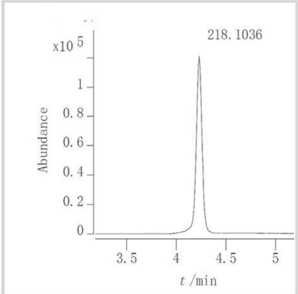

Fig C.372 pymetrozine EIC

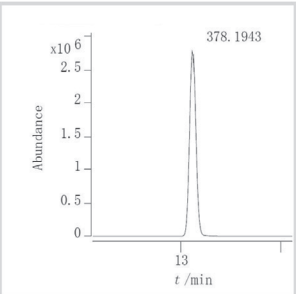

Fig C.373 pyrimidifen EIC

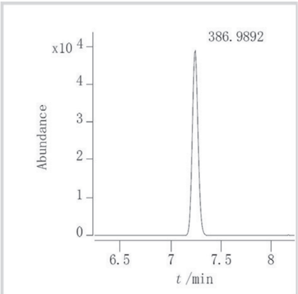

Fig C.374 sulfentrazone EIC

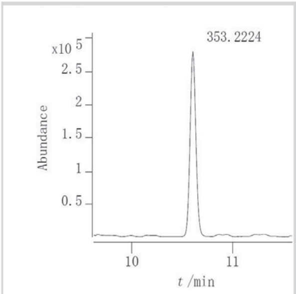

Fig C.375 tebufenozide EIC

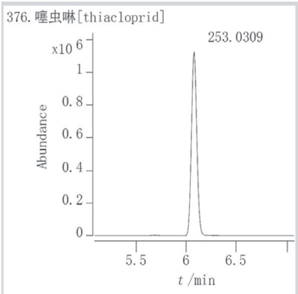

Fig C.376 thiacloprid EIC

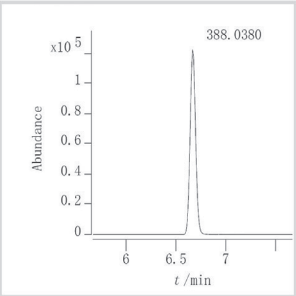

Fig C.377 thifensulfuron-methyl EIC

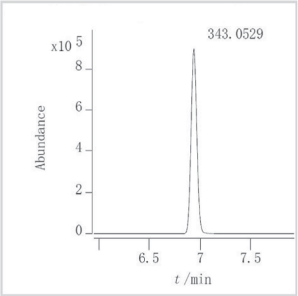

Fig C.378 thiophanate-methyl EIC

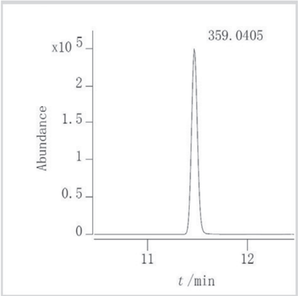

Fig C.379 triflumuron EIC

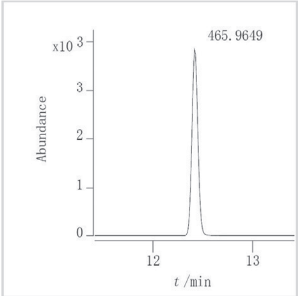

Fig C.380 amisulbrom EIC

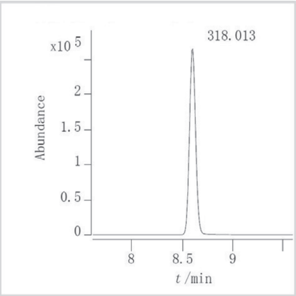

Fig C.381 azinphos-methyl EIC

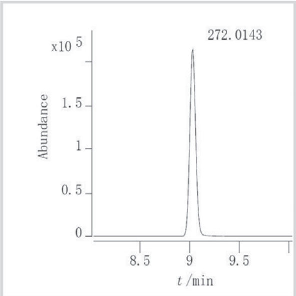

Fig C.382 benazolin-ethyl ester EIC

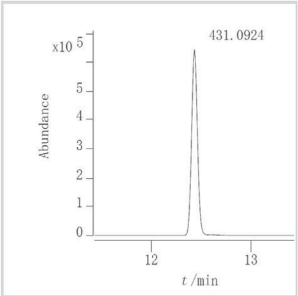

Fig C.383 benzofenap EIC

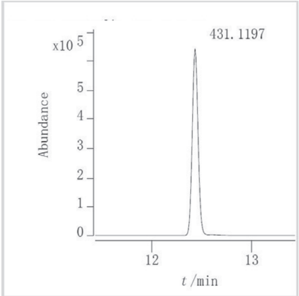

Fig C.384 bispyribac-sodium EIC

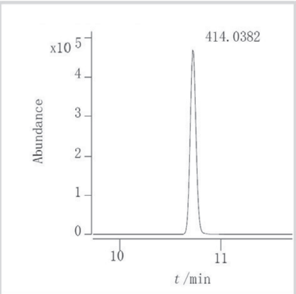

Fig C.385 bixafen EIC

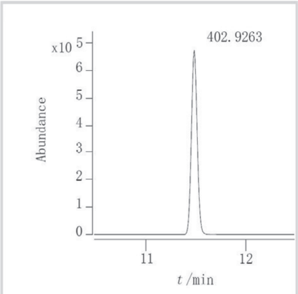

Fig C.386 bromfenvinphos EIC

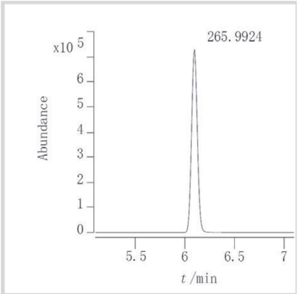

Fig C.387 brompyrazon EIC

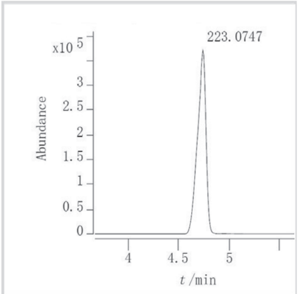

Fig C.388 butoxycarboxim EIC

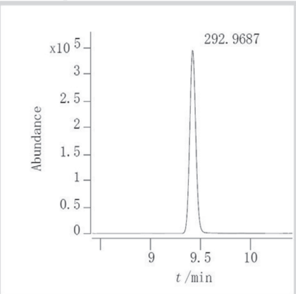

Fig C.389 chlorbromuron EIC

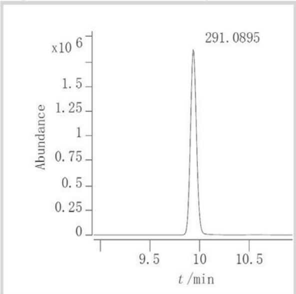

Fig C.390 chloroxuron EIC

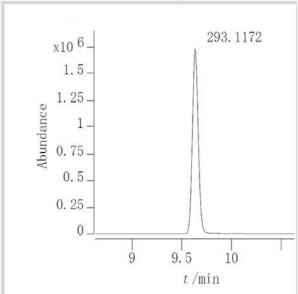

Fig C.391 coumatetralyl EIC

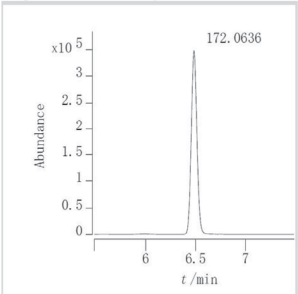

Fig C.392 crimidine EIC

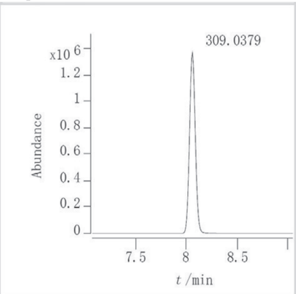

Fig C.393 fensulfothion EIC

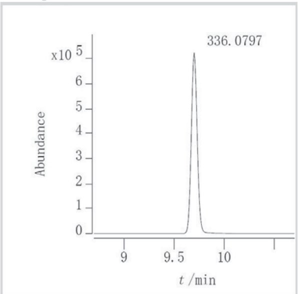

Fig C.394 flamprop-methyl EIC

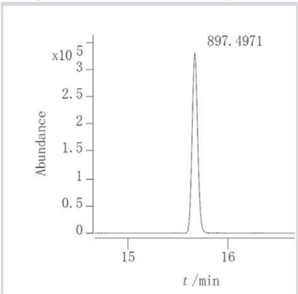

Fig C.395 ivermectin EIC

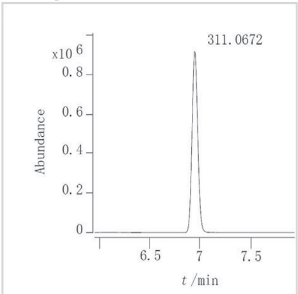

Fig C.396 mefluidide EIC

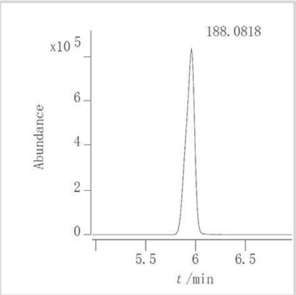

Fig C.397 metamitron-desamino EIC

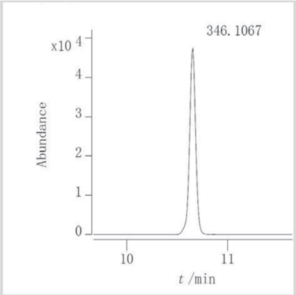

Fig C.398 nitralin EIC

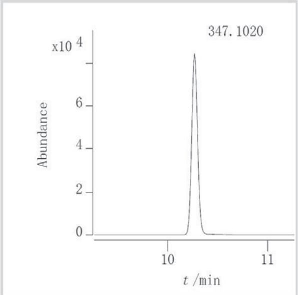

Fig C.399 oryzalin EIC

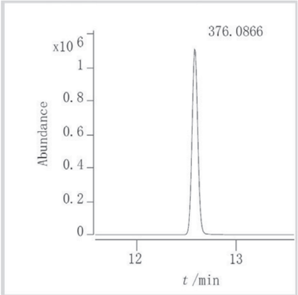

Fig C.400 oxaziclomefone EIC

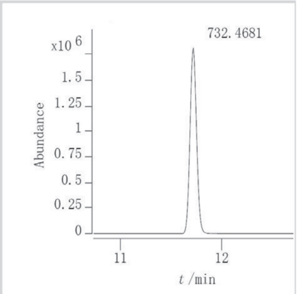

Fig C.401 spinosad A EIC

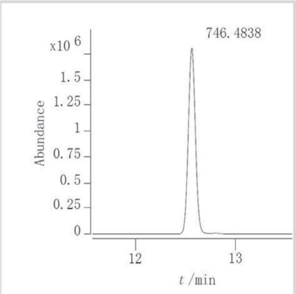

Fig C.402 spinosad D EIC

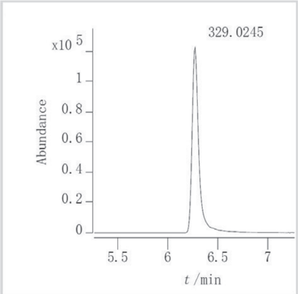

Fig C.403 sulcotrione EIC

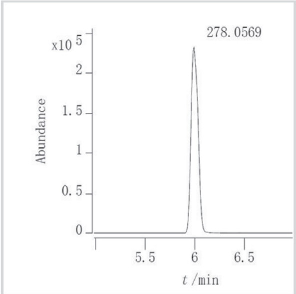

Fig C.404 sulfoxaflor EIC

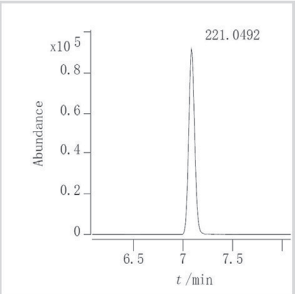

Fig C.405 thidiazuron EIC

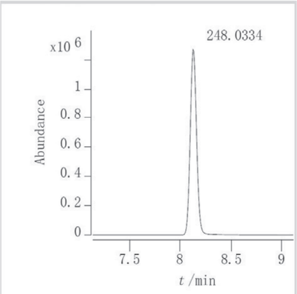

Fig C.406 triazoxide EIC

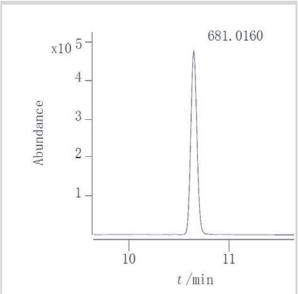

Fig C.407 flubendiamide EIC

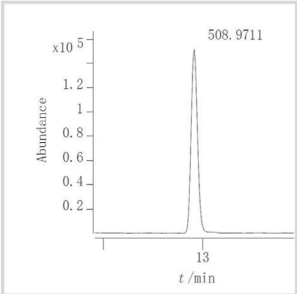

Fig C.408 lufenuron EIC

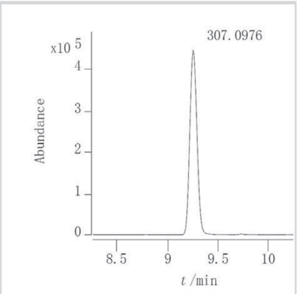

Fig C.409 warfarin EIC

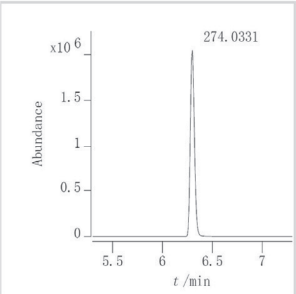

Fig C.410 amidithion EIC

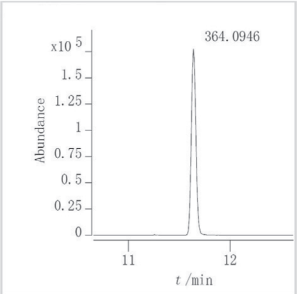

Fig C.411 benzoximate EIC

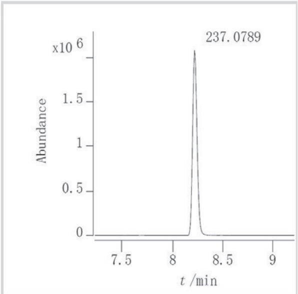

Fig C.412 buturon EIC

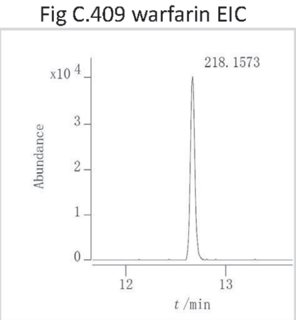

Fig C.413 butylate EIC

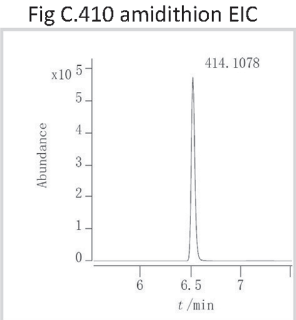

Fig C.414 cinosulfuron EIC

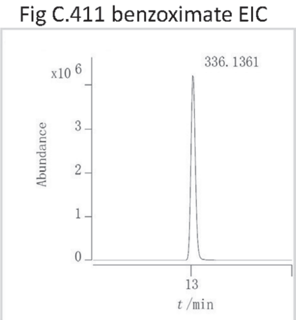

Fig C.415 cloquintocet-mexyl EIC

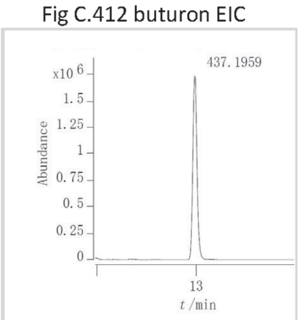

Fig C.416 coumoxystrobin EIC

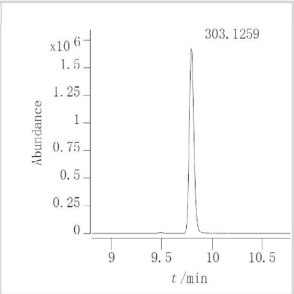

Fig C.417 cumyluron EIC

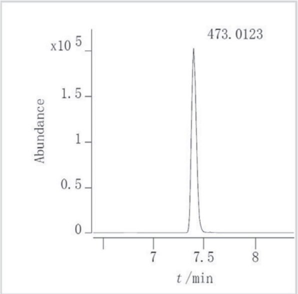

Fig C.418 cyantraniliprole EIC

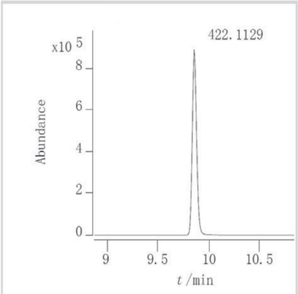

Fig C.419 cyclosulfamuron EIC

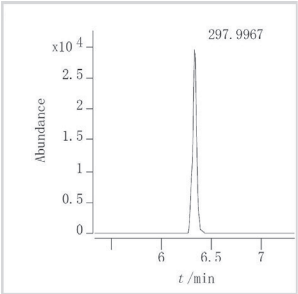

Fig C.420 cythioate EIC

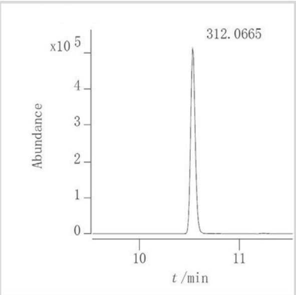

Fig C.421 prothioconazole-desthio EIC

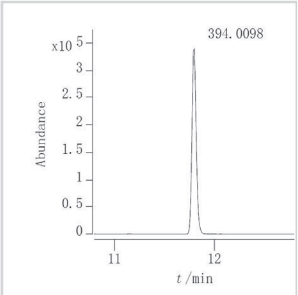

Fig C.422 dialifos EIC

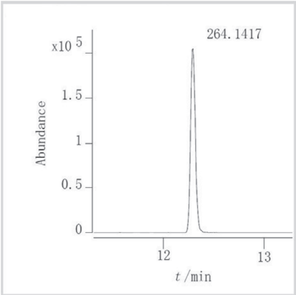

Fig C.423 dimepiperate EIC

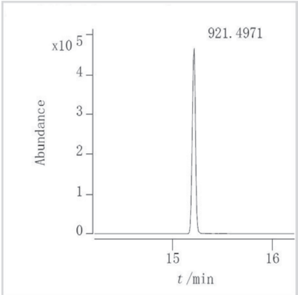

Fig C.424 doramectin EIC

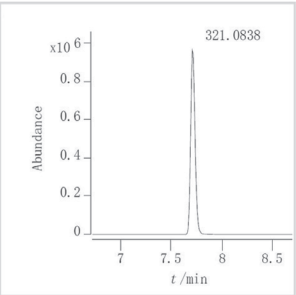

Fig C.425 ethaboxam EIC

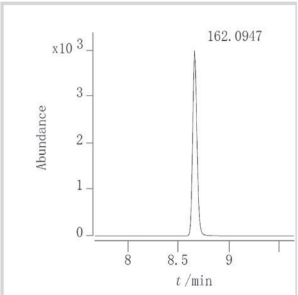

Fig C.426 ethiolate EIC

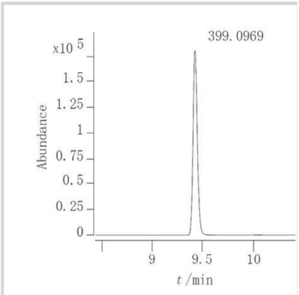

Fig C.427 ethoxysulfuron EIC

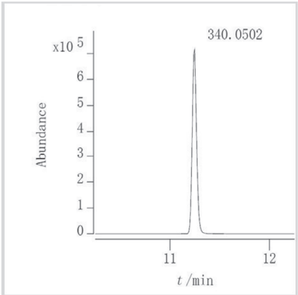

Fig C.428 etobenzanid EIC

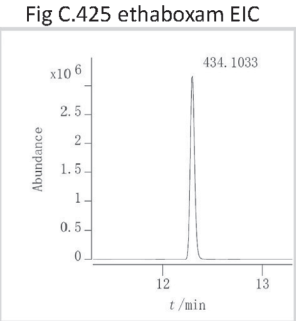

Fig C.429 fenaminstrobin EIC

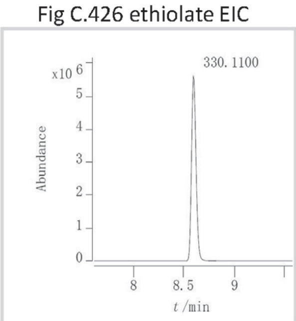

Fig C.430 fluridone EIC

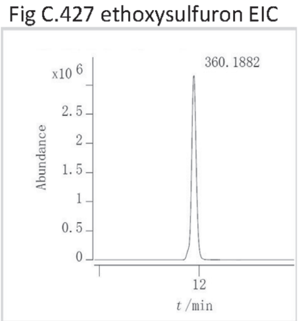

Fig C.431 isopyrazam EIC

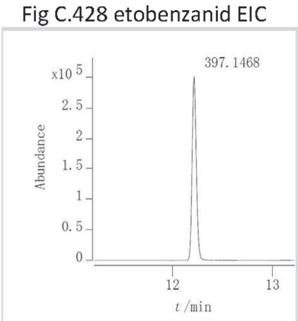

Fig C.432 kadethrin EIC

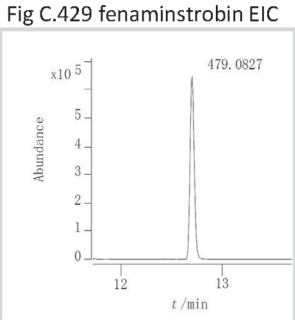

Fig C.433 lactofen EIC

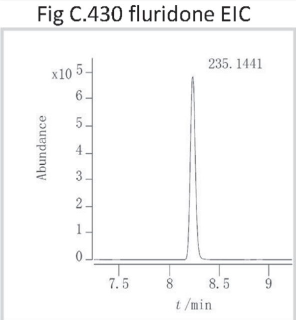

Fig C.434 lenacil EIC

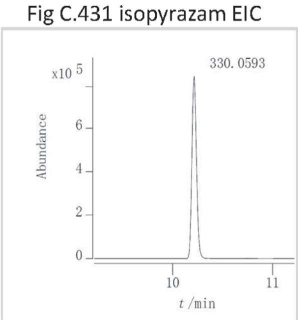

Fig C.435 mecarbam EIC

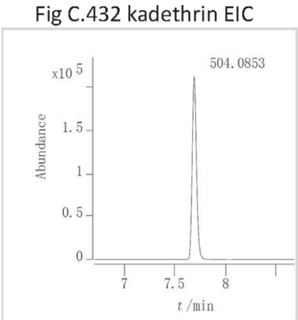

Fig C.436 mesosulfuron-methyl EIC

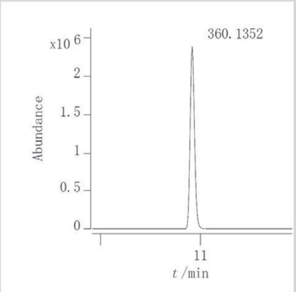

Fig C.437 penthiopyrad EIC

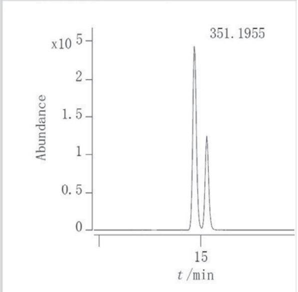

Fig C.438 phenothrin EIC

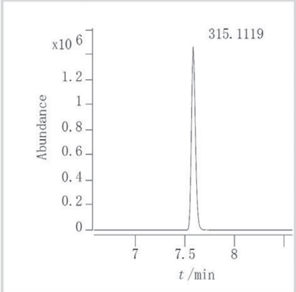

Fig C.439 pyraclonil EIC

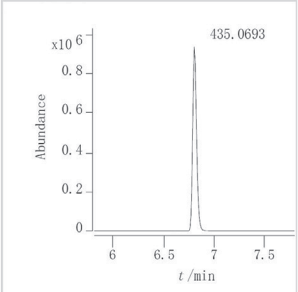

Fig C.440 pyroxsulam EIC

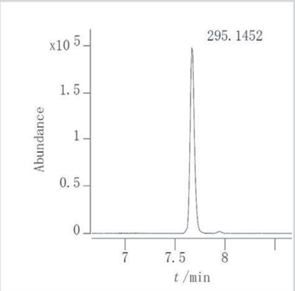

Fig C.441 yishijing EIC

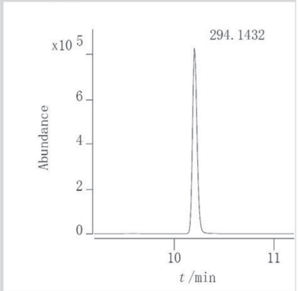

Fig C.442 simeconazole EIC

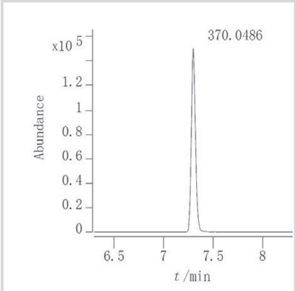

Fig C.443 amidosulfuron EIC

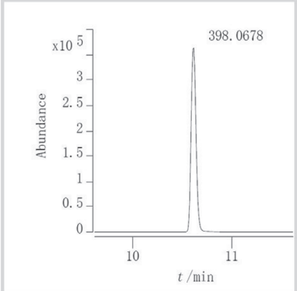

Fig C.444 bensulide EIC

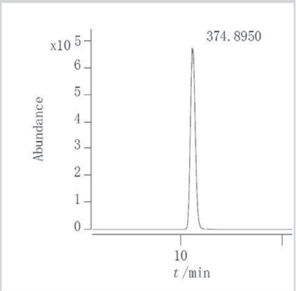

Fig C.445 bromfenvinphos-methyl EIC

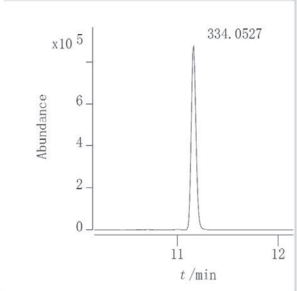

Fig C.446 carpropamid EIC

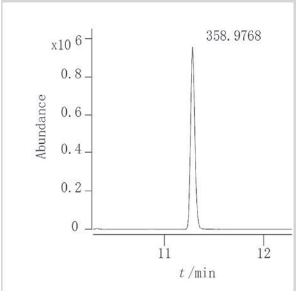

Fig C.447 chlorfenvinphos EIC

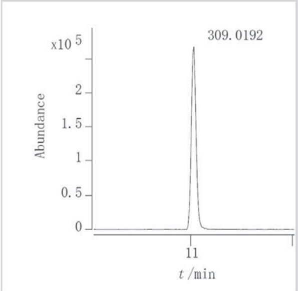

Fig C.448 chlorobenzuron EIC

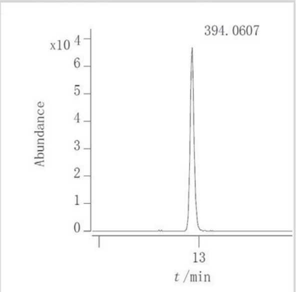

Fig C.449 cinidon-ethyl EIC

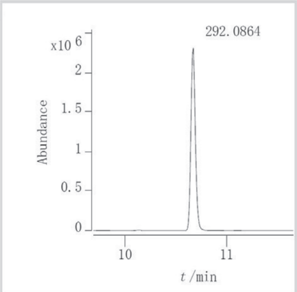

Fig C.450 crufomate EIC

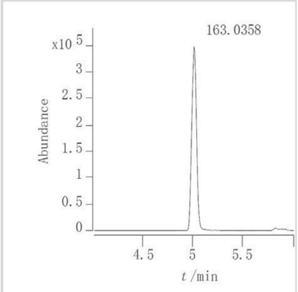

Fig C.451 dazomet EIC

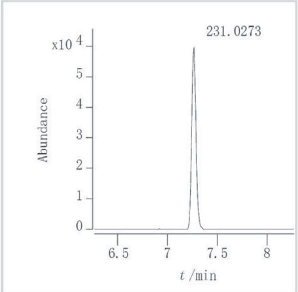

Fig C.452 demeton-methyl EIC

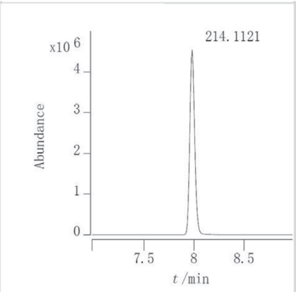

Fig C.453 desmetryn EIC

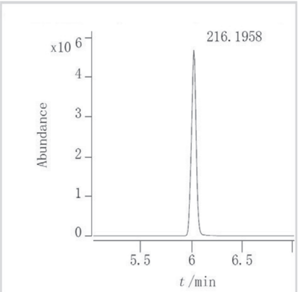

Fig C.454 diethyl aminoethyl hexanoate EIC

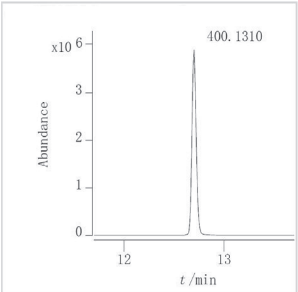

Fig C.455 enestroburin EIC

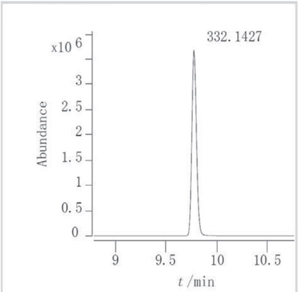

Fig C.456 fenpyrazamine EIC

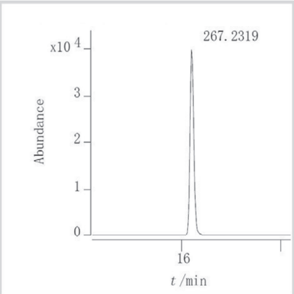

Fig C.457 hydroprene EIC

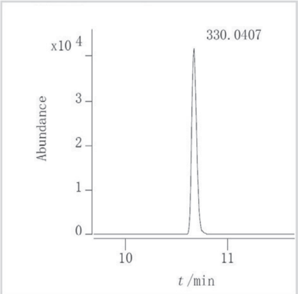

Fig C.458 iprodione EIC

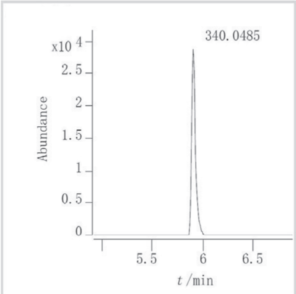

Fig C.459 mesotrione EIC

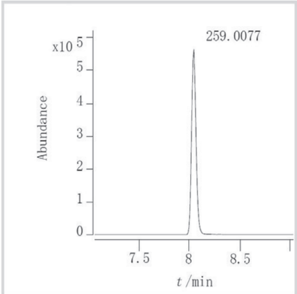

Fig C.460 metobromuron EIC

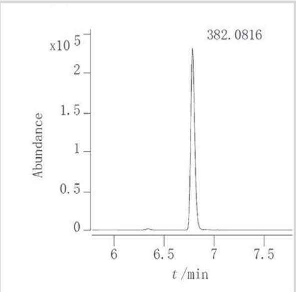

Fig C.461 metsulfuron-methyl EIC

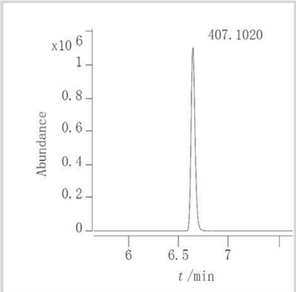

Fig C.462 oxasulfuron EIC

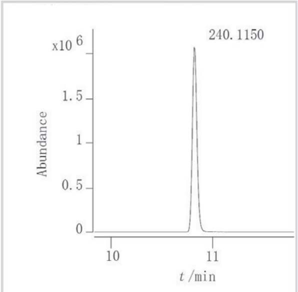

Fig C.463 pentanochlor EIC

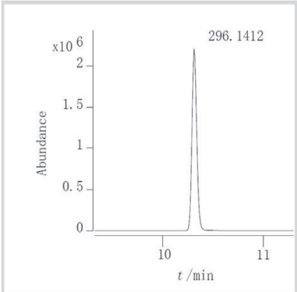

Fig C.464 pethoxamid EIC

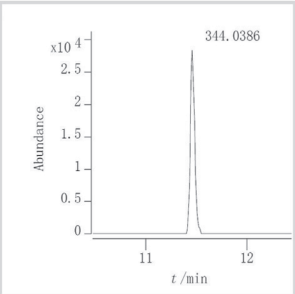

Fig C.465 prothioconazole EIC

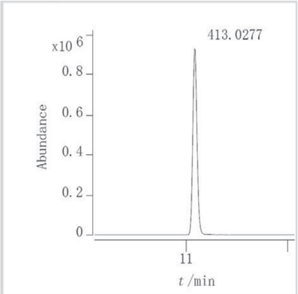

Fig C.466 pyraflufen-ethyl EIC

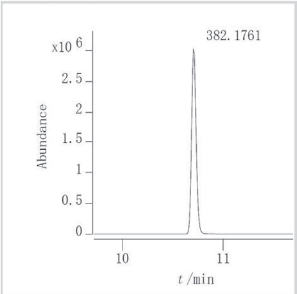

Fig C.467 pyrametostrobin EIC

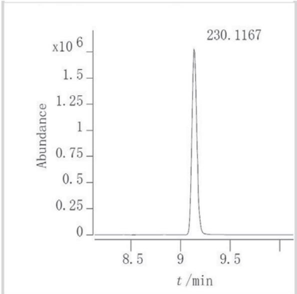

Fig C.468 sebuthylazine EIC

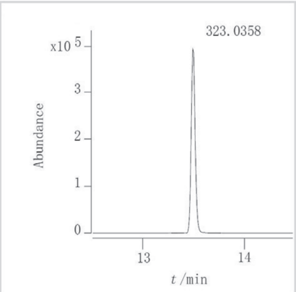

Fig C.469 sulprofos EIC

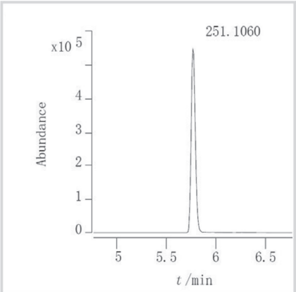

Fig C.470 thiofanox sulfone EIC

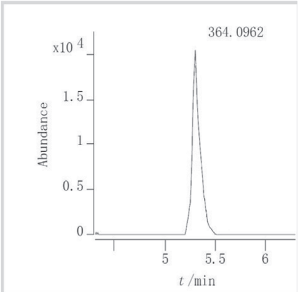

Fig C.471 topramezone EIC

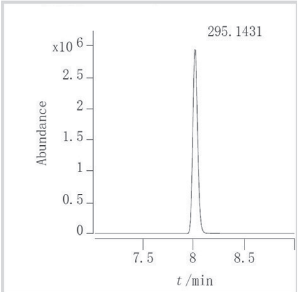

Fig C.472 triamiphos EIC

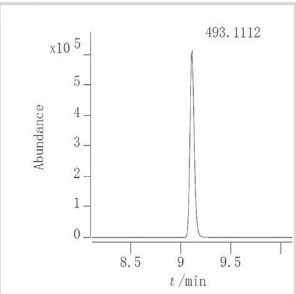

Fig C.473 triflusulfuron-methyl EIC

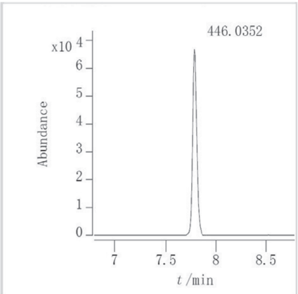

Fig C.474 tritosulfuron EIC

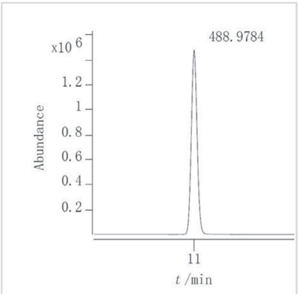

Fig C.475 flufiprole EIC

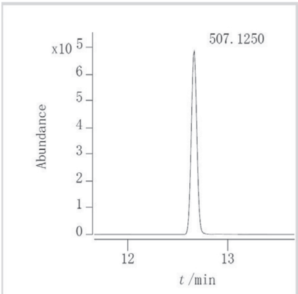

Fig C.476 metaflumizone EIC

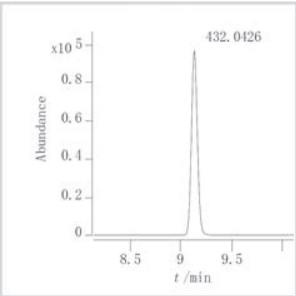

Fig C.477 bensultap EIC

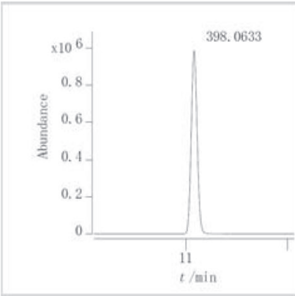

Fig C.478 benzovindiflupyr EIC

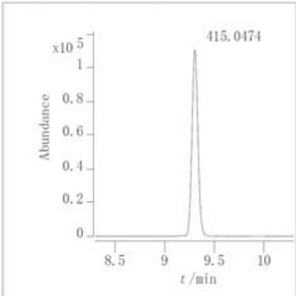

Fig C.479 chlorimuron-ethyl EIC

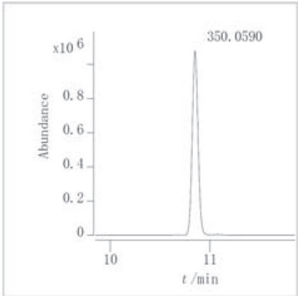

Fig C.480 clodinafop-propargyl EIC

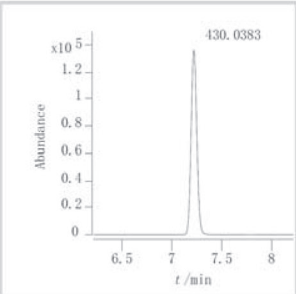

Fig C.481 cloransulam-methyl EIC

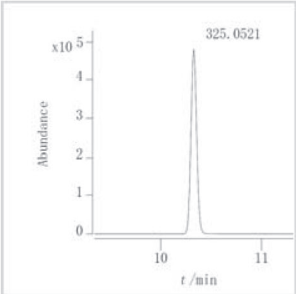

Fig C.482 cyazofamid EIC

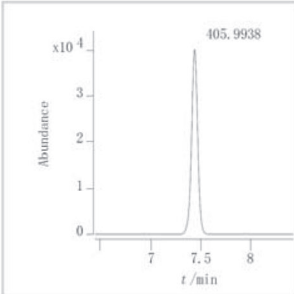

Fig C.483 diclosulam EIC

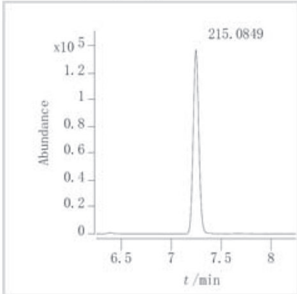

Fig C.484 DMST EIC

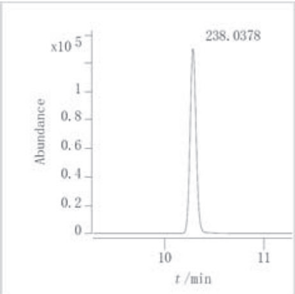

Fig C.485 drazoxolon EIC

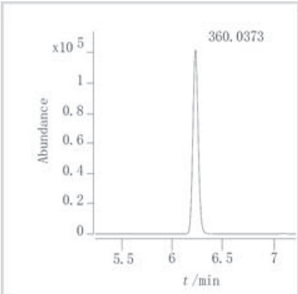

Fig C.486 florasulam EIC

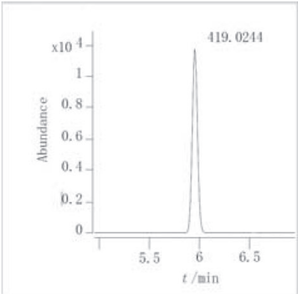

Fig C.487 flucarbazone-sodium EIC

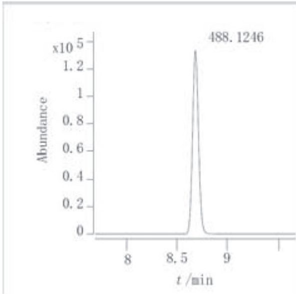

Fig C.488 flucetosulfuron EIC

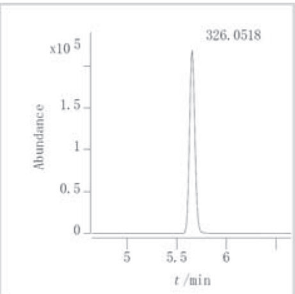

Fig C.489 flumetsulam EIC

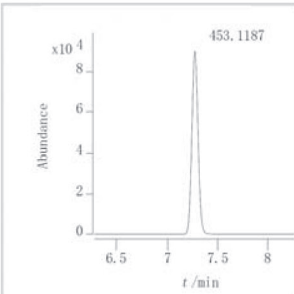

Fig C.490 foramsulfuron EIC

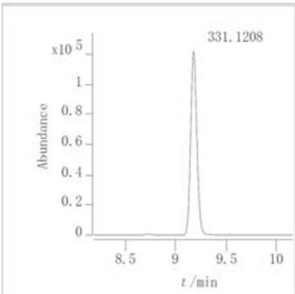

Fig C.491 halofenozide EIC

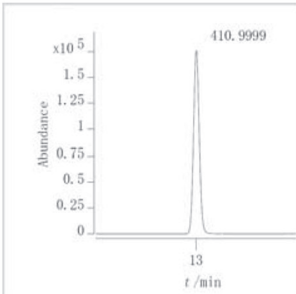

Fig C.492 imibenconazole EIC

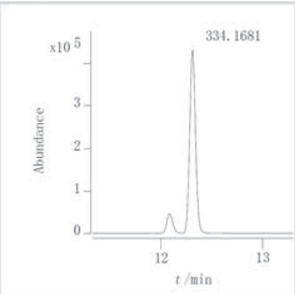

Fig C.493 ipconazole EIC

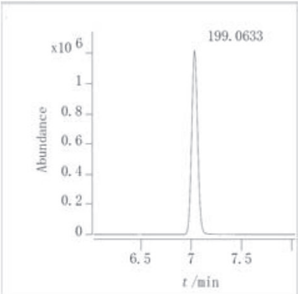

Fig C.494 monuron EIC

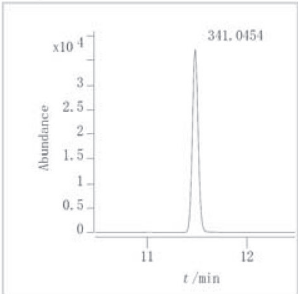

Fig C.495 oxadiargyl EIC

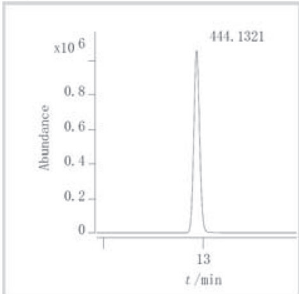

Fig C.496 propaquizafop EIC

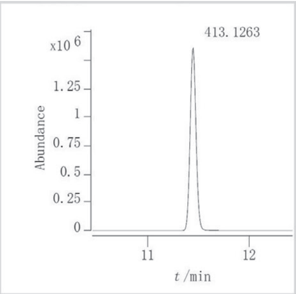

Fig C.497 pyraoxystrobin EIC

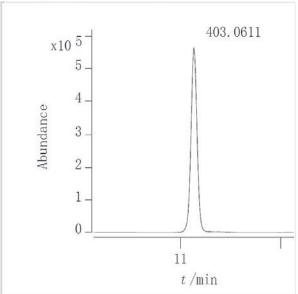

Fig C.498 pyrazoxyfen EIC

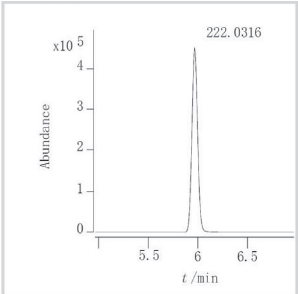

Fig C.499 quinmerac EIC

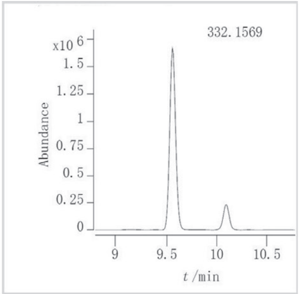

Fig C.500 sedaxane EIC

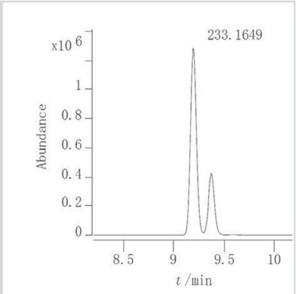

Fig C.501 siduron EIC

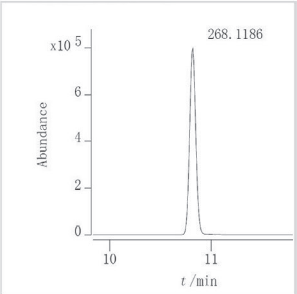

Fig C.502 silthiofam EIC

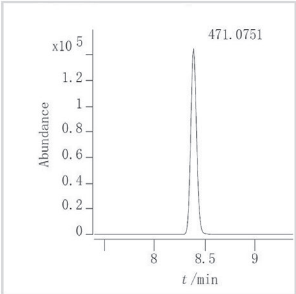

Fig C.503 sulfosulfuron EIC

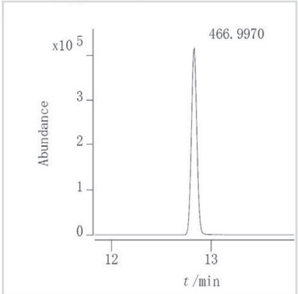

Fig C.504 temephos EIC

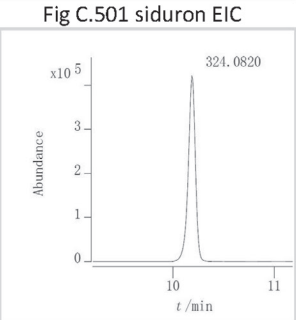

Fig C.505 thenylchlor EIC

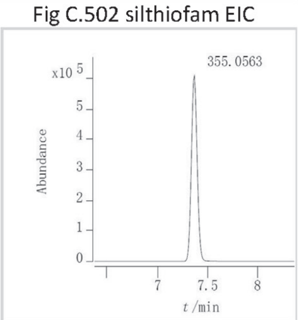

Fig C.506 thiodicarb EIC

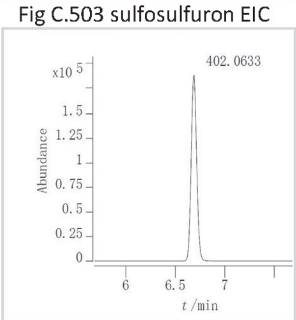

Fig C.507 triasulfuron EIC

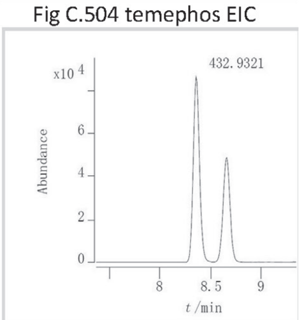

Fig C.508 triforine EIC

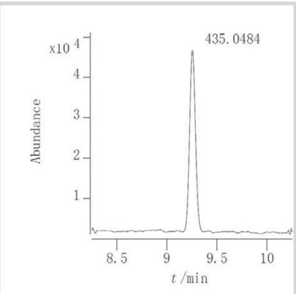

Fig C.509 halosulfuron-methyl EIC

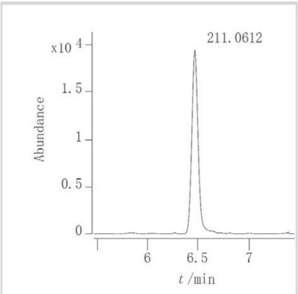

Fig C.510 prohexadione EIC

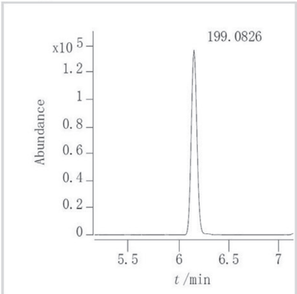

Fig C.511 cymoxanil EIC

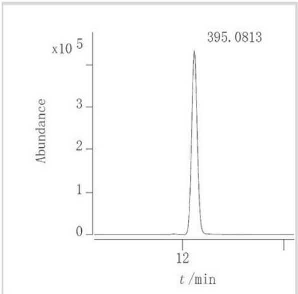

Fig C.512 diflufenican EIC

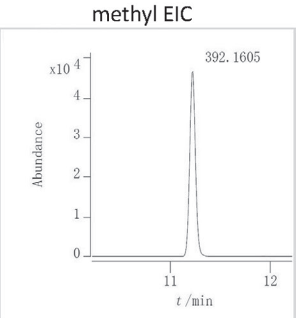

Fig C.513 famoxadone EIC

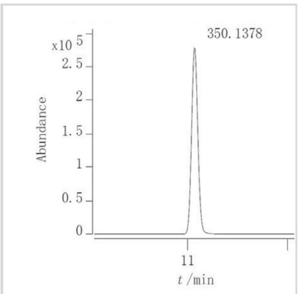

Fig C.514 fentrazamide EIC

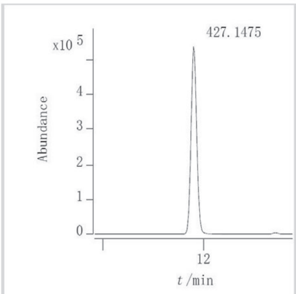

Fig C.515 fluacrypyrim EIC

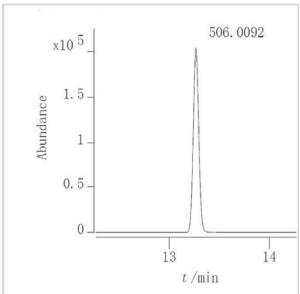

Fig C.516 fluazuron EIC

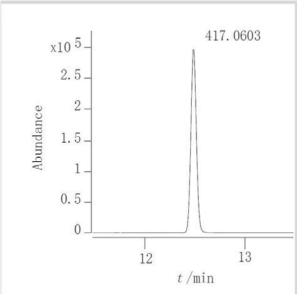

Fig C.517 flubenzimine EIC

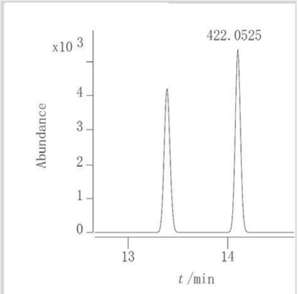

Fig C.518 flumetralin EIC

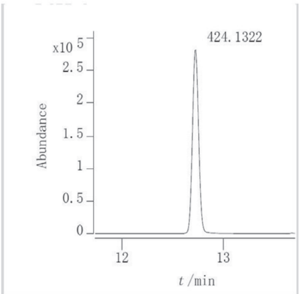

Fig C.519 flumiclorac-pentyl EIC

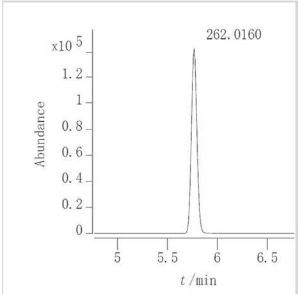

Fig C.520 imidaclothiz EIC

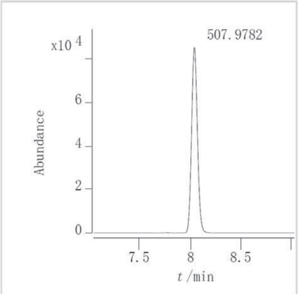

Fig C.521 iodosulfuron-methyl EIC

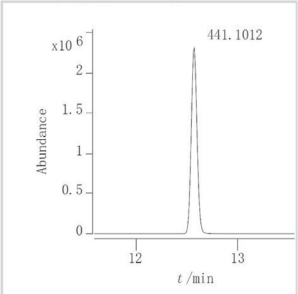

Fig C.522 metamifop EIC

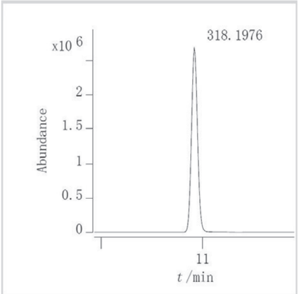

Fig C.523 penflufen EIC

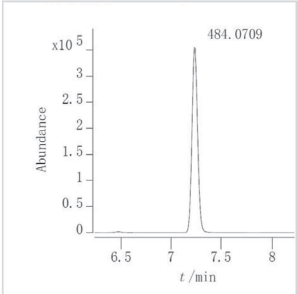

Fig C.524 penoxsulam EIC

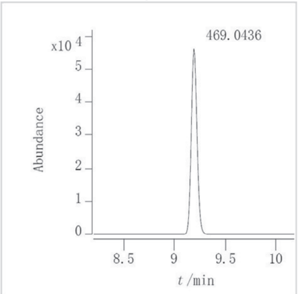

Fig C.525 primisulfuron-methyl EIC

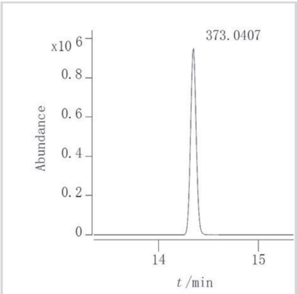

Fig C.526 proquinazid EIC

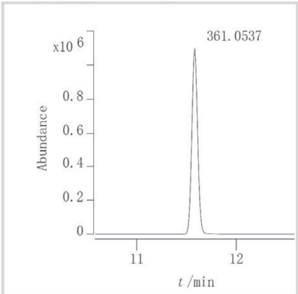

Fig C.527 pyraclofos EIC

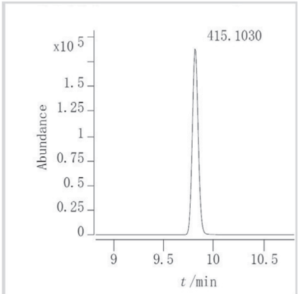

Fig C.528 pyrazosulfuron-ethyl EIC

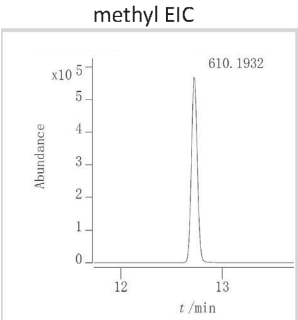

Fig C.529 pyribenzoxim EIC

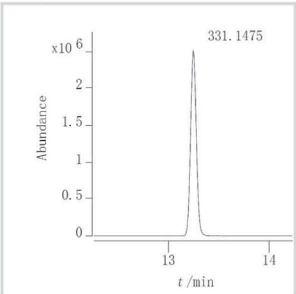

Fig C.530 pyributicarb EIC

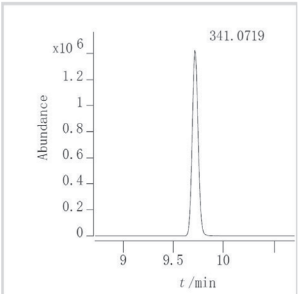

Fig C.531 pyridaphenthion EIC

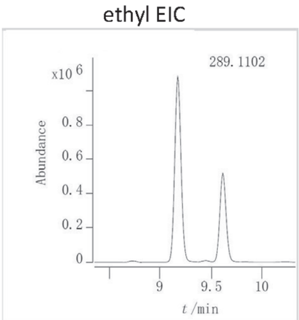

Fig C.532 pyrisoxazole EIC

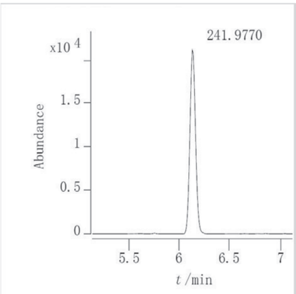

Fig C.533 quinclorac EIC

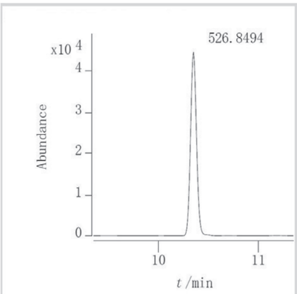

Fig C.534 thifluzamide EIC

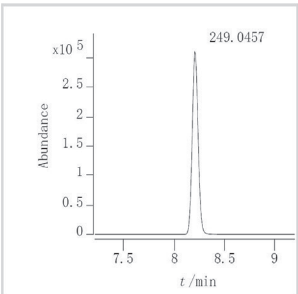

Fig C.535 thionazin EIC

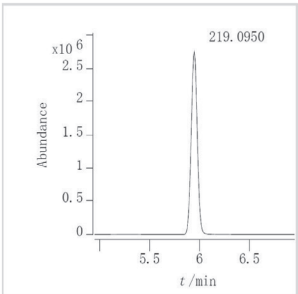

Fig C.536 tifatol EIC

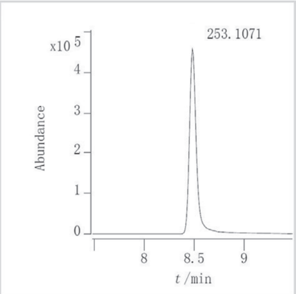

Fig C.537 trinexapac-ethyl EIC

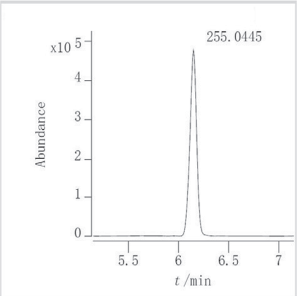

Fig C.538 6-hydroxy-bentazone EIC

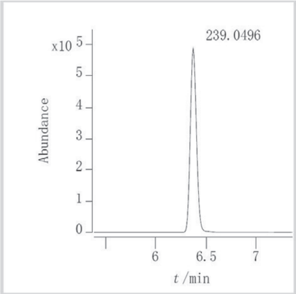

Fig C.539 bentazone EIC

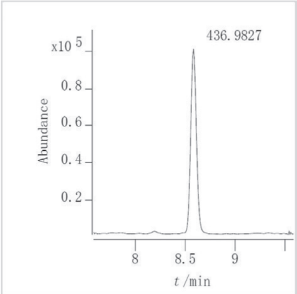

Fig C.540 fomesafen EIC