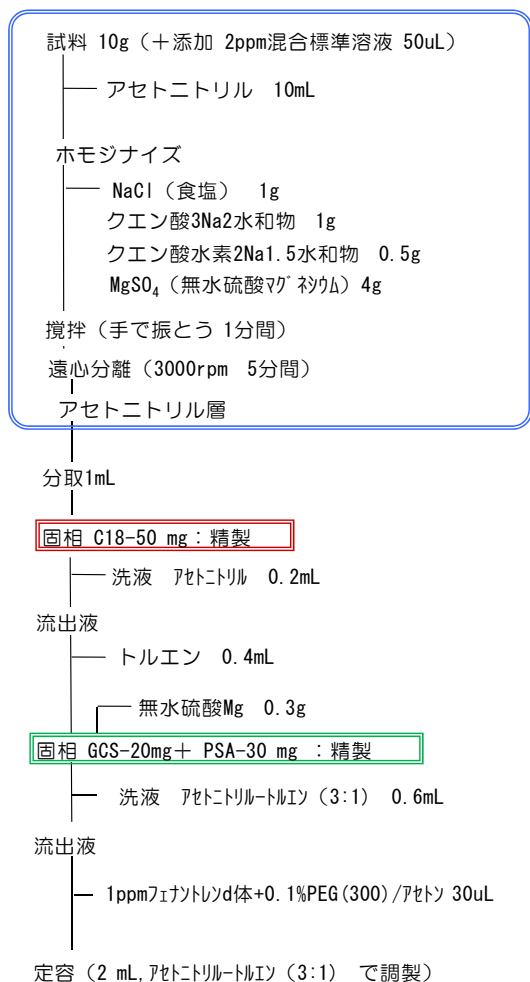


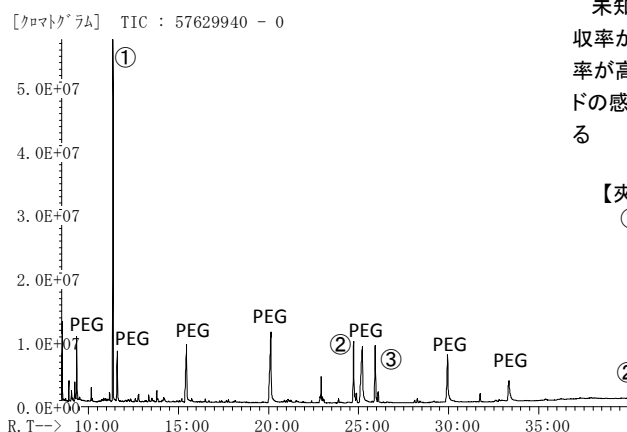
りんご (ふじ) MA-GCA1

前処理フロー



GC/MS (LVI-S200 大量注入20uL : 試料10mg相当)

Scan Chromatogram

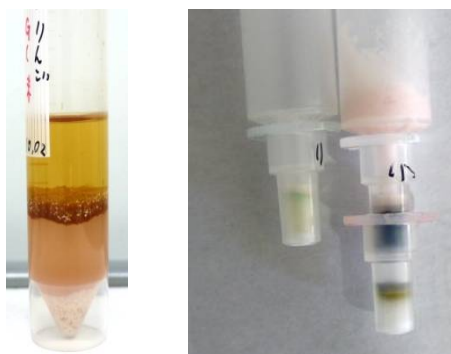


目的/実験方法

手作業による添加回収試験 (GC-A1法)

- 添加濃度 (試料中) : 10ppb
- 最終バイアル中濃度 : 5ppb
- 農薬 : 関東MIX-22, 31, 34, 48, 51
- 検量線 :
 - ・PEG共注入標準溶液、絶対、直線検量線
 - ・1点 : 5ppb
 - ・15ppbフェナントレン体+15ppmPEG + 農薬混合標準溶液 (アセトニトリル)
 - * フェナントレン体は装置の感度評価の目安として使用。
- 測定 : 1 Injection によるSCAN測定
- 測定条件 : 参考資料に従う。

- ① 遠心分離後 ② 固相 (C18-50, GCS+PSA)



考察

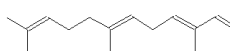
RT 23分付近でイミペンコナゾールデスベンジル、イソキサチオン、シプロコナゾール、RT24分付近でオキサジキシルのピークに夾雑ピーク (SCANにはピーク出ない) が重なり、解析に影響を与えている。

未知検体からダイアジノン、クレソキシムメチル、トリフロキシストロビンが検出された。

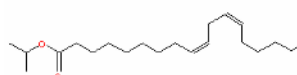
未知検出の影響からか、クレソキシムメチルの回収率がかなり高くなっている。またB法に比べ、回収率が高くなるものが多いが、夾雑ピークや、スタンダードの感度が悪いものが多いためではないかと思われる。

【夾雑成分】

- ① a-Farnesene (香気成分)



- ②, ③ Isopropyl linoleate



STQ-KIT
For STQ Method

Sample



Information

水分 : 84.9%
脂質 : 0.1%
脂肪酸 : 0.03%

りんごは花おち、しん及び果梗の基部を除去したものを、フードプロセッサーで細切。

AISTI SCIENCE

Product

LVI-S200
Smart-SPE C18-50
Smart-SPE GCS-20
Smart-SPE PSA-30

株式会社アイスティサイエンス

〒640-8341
和歌山市黒田120-6アソト黒田2F
TEL. 073-475-0033
FAX. 073-497-5011
www.aisti.co.jp

No.	農薬名	回収率(%)	No.	農薬名	回収率(%)	No.	農薬名	回収率(%)	No.	農薬名	回収率(%)
1	1-Naphthylacetamide	87.5	76	Cypermethrin-3	55.7	151	Fluthiacet-methyl	67.6	226	Profenofos	73.4
2	3-Hydroxycarbofuran	St-	77	Cypermethrin-4	67.9	152	Flutolanil	78.6	227	Prohydrojasmon-1	79.8
3	4,4'-Dichlorobenzophenone	74.2	78	Cyproconazole-1	70.8	153	Flutriafol	69.6	228	Prohydrojasmon-2	St-
4	Acephate	75.6	79	Cyproconazole-2	ND	154	Fluvalinate-1	78.8	229	Prometryn	80.7
5	Acetamidopride	87.7	80	DEF(tribufos)	72.5	155	Fluvalinate-2	76.9	230	Propachlor	75.6
6	Acetochlor	76.2	81	Deltamethrin	70.7	156	Formothion	79.6	231	Propanil	61.2
7	Acrinathrin	72.3	82	Demeton-S-methyl	84.2	157	Fosthiazate-1	80.4	232	Propaphos	80.6
8	Alachlor	73.4	83	Diallate-1	79.4	158	Fosthiazate-2	72.4	233	Propargite(BPPS)	ND
9	Allethrin-1,2	St-	84	Diallate-2	83.6	159	Halfenprox	75.4	234	Propazine	77.4
10	Allethrin-3,4	79.8	85	Diazinone	79.0	160	Hexaconazole	64.2	235	Propiconazole-1	65.8
11	Ametryn	74.5	86	Dichlofenthion	73.9	161	Hexazinone	53.2	236	Propiconazole-2	68.5
12	Anilofos	78.1	87	Dichlofluanid	79.0	162	Imazamethabenz methyl	79.5	237	Propoxur	80.2
13	Aramite-3	74.4	88	Dichlorvos	76.6	163	Imibenconazole	75.1	238	Propyzamide	72.7
14	Aramite-4	74.5	89	Diclocymet-1	72.0	164	Imibenconazole-des-benzyl	82.9	239	Prothiophos	71.3
15	Atrazine	78.9	90	Diclocymet-2	75.4	165	Iprobenfos	79.0	240	Pyraclofos	66.1
16	Azaconazole	66.1	91	Diclofop-methyl	84.2	166	Iprodione	81.8	241	Pyraflufen-ethyl	79.3
17	Azinphos-Methyl	87.6	92	Dicloran	139.4	167	Isazophos	82.7	242	Pyrazophos	70.6
18	Benalaxyl	71.9	93	Dicrotofos	94.5	168	Isofenphos	81.7	243	Pyributicarb	66.6
19	Bendiocarb	70.4	94	Diethofencarb	77.2	169	Isofenphos P=O	85.1	244	Pyridaben	76.9
20	Benfluranlin	205.7	95	Difenoconazole-1	62.0	170	Isoprocabe	72.5	245	Pyridafenthion	163.1
21	Benfuresate	79.4	96	Difenoconazole-2	91.2	171	Isoprothiolane	75.4	246	Pyrifenox-1	63.0
22	Benoxacor	79.0	97	Diflufenican	72.3	172	Isoxathion	53.9	247	Pyrifenox-2	64.3
23	BHC-alpha	73.9	98	Dimepiperate	74.7	173	Isoxathion-ox	62.2	248	Pyrimethanil	66.6
24	BHC-beta	70.2	99	Dimethametryn	79.3	174	Kresoxim-methyl	254.7	249	Pyrimidifen	77.7
25	BHC-gamma	70.1	100	Dimethenamid	75.0	175	Lenacil	77.1	250	Pyriminobac-methyl-1	80.2
26	BHC-delta	84.8	101	Dimethipin	72.4	176	Malathion	81.6	251	Pyriminobac-methyl-2	75.0
27	Bifenox	200.1	102	Dimethoate	81.9	177	Mecarbam	St-	252	Pyriproxyfen	75.9
28	Bifenthrin	76.7	103	Dimethylvinphos-z	80.5	178	Mefenacet	81.5	253	Pyroquilon	71.4
29	Bitertanol-1	79.7	104	Dioxathion	31.0	179	Mefenpyr-diethyl	83.0	254	Quinoclamine	108.3
30	Bitertanol-2	70.8	105	Diphenamide	77.7	180	Mepronil	77.1	255	Quinolophos	72.9
31	Bromacil	77.3	106	Disulfoton	72.9	181	Metaxyl	75.5	256	Quinomethionate	ND
32	Bromobutide	76.3	107	Disulfoton sulfone	79.4	182	Methamidophos	70.4	257	Quinoxyfen	65.2
33	Bromofos methyl	72.3	108	Edifenphos	79.2	183	Methidathion	79.2	258	Quintozen	127.1
34	Bromophos-ethyl	69.6	109	Endosulfan	73.6	184	Methiocarb	86.1	259	Resmethrin-1	St-
35	Bromopropylate	75.4	110	Endosulfan II	85.8	185	Methoprene-1	St-	260	Resmethrin-2	76.9
36	Bupimate	76.7	111	Endosulfan sulfate	77.4	186	Methoprene-2	72.9	261	Silafluofen	76.4
37	Buprofezin	74.7	112	EPN	182.1	187	Methoxychlor	75.9	262	Simazin	88.7
38	Butachlor	75.9	113	Epoxiconazole	71.3	188	Metolachlor	77.8	263	Simetryn	66.3
39	Butamifos	121.4	114	EPTC	79.2	189	Metominostrobin-e	79.6	264	Spirodiclofen	87.3
40	Butylate	79.5	115	Esprocarb	80.3	190	Metominostrobin-z	74.4	265	Spiroxamine-1	79.4
41	Cadusafos	84.6	116	Ethalfuralin	173.7	191	Mevinphos	87.2	266	Spiroxamine-2	81.7
42	Cafenstrole	79.9	117	Ethiofencarb	84.4	192	Monocrotophos	78.8	267	TCMTB	89.2
43	Captafol	St-	118	Ethion	79.7	193	Myclobutanil	70.8	268	Tebuconazole	70.8
44	Captan	99.8	119	Ethofumesate	76.6	194	Napropamide	80.1	269	Tebufenpyrad	77.3
45	Carbaril	81.8	120	Ethoprophos	80.8	195	Nitrothal-isopropyl	414.6	270	Tecnazene	104.5
46	Carbofuran	80.3	121	Etofenprox	79.6	196	Norflurazon	74.0	271	Tefluthrine	72.2
47	Carboxin	98.8	122	Etoxazole	71.4	197	Oryzalin	St-	272	Terbacil	87.0
48	Carfentrazone ethyl	59.1	123	Etrifos	74.6	198	Oxadiazon	71.2	273	Terbufos	60.0
49	Chlorbenside	73.0	124	Fenamidone	81.5	199	Oxadixyl	72.3	274	Terbutryn	80.3
50	Chlorbufam	52.5	125	Fenamiphos	80.2	200	Oxyfluorfen	92.8	275	Tetrachlorvinphos	78.1
51	Chlorethoxyphos	83.1	126	Fenarimol	77.2	201	p,p'-DDD	75.4	276	Tetraconazole	71.4
52	Chlorfenapyr	79.5	127	Fenbuconazole	70.3	202	p,p'-DDE	69.9	277	Tetradifon	76.5
53	Chlorfenson	75.2	128	Fenchlorphos	75.3	203	Paclobotrazol	72.8	278	Thenylchlor	75.1
54	Chlorfenvinphos-1	95.9	129	Fenitrothion	114.1	204	Parathion	209.7	279	Thiobencarb	80.6
55	Chlorfenvinphos-2	84.5	130	Fenobucarb	79.0	205	Parathion-methyl	195.7	280	Thiometon	82.0
56	Chlorobenzilate	81.4	131	Fenothiocarb	76.9	206	Penconazole	74.6	281	Tolclofos-methyl	74.1
57	Chloroneb	70.2	132	Fenoxanil	60.4	207	Pendimethalin	191.8	282	Tolfenpyrad	76.8
58	Chlorpropham	83.3	133	Fenpropathrin	74.0	208	Permethrin-cis	78.5	283	Toriadimefon	76.5
59	Chlorpyrifos	75.2	134	Fenpropemorph	79.9	209	Permethrin-trans	75.9	284	Triadimenol-1	71.1
60	Chlorpyrifos-methyl	76.1	135	Fensulfothion	74.5	210	Perthane	81.4	285	Triadimenol-2	57.7
61	Chlorthal-dimethyl	73.9	136	Fenthion	80.0	211	Phenothrin-1	73.4	286	Triallate	73.0
62	Chlozolinate	74.4	137	Fenvalerate-1	69.9	212	Phenothrin-2	83.2	287	Triazophos	70.9
63	Cinidon-ethyl	89.9	138	Fenvalerate-2	77.4	213	Phenthoate	69.3	288	Tricyclazole	53.0
64	Clomazone	76.7	139	FIPRONIL	78.6	214	Phorate	80.5	289	Trifloxystrobin	110.8
65	Cyanazine	76.8	140	Flamprop-methyl	75.2	215	Phosalone	78.0	290	Trifluralin	213.8
66	Cyanophos	74.2	141	Fluacrypyrim	95.7	216	Phosmet	76.6	291	Thifluzamide	73.1
67	Cyfluthrin-1	42.0	142	Flucythrinate-1	78.6	217	Phosphamidon	82.1	292	Uniconazole	84.2
68	Cyfluthrin-2	92.7	143	Flucythrinate-2	83.2	218	Phthalide	65.3	293	Vinclozoline	71.3
69	Cyfluthrin-3	82.6	144	Fludioxonil	79.4	219	Picolinafen	74.7	294	XMC	81.8
70	Cyfluthrin-4	74.8	145	Flufenpyl-ethyl	91.5	220	Piperonyl butoxide	83.7	295	Zoxamide	84.9
71	Cyhalofop-butyl	77.3	146	Flumiclorac-pentyl	98.0	221	Piperophos	77.9			
72	Cyhalothrin-1	75.5	147	Flumioxazin	93.8	222	Pirimicarb	70.5			
73	Cyhalothrin-2	73.1	148	Fluquinconazole	78.7	223	Pirimiphos methyl	77.0			
74	Cypermethrin-1	84.5	149	Fluridone	78.5	224	Pretilachlor	80.2			
75	Cypermethrin-2	74.9	150	Flusilazole	72.8	225	Procymidone	70.3			

*PEG共注入標準溶液による絶対検量線を使用 回収率30%未満は ND スタンダードNDは St- 回収率150%以上は