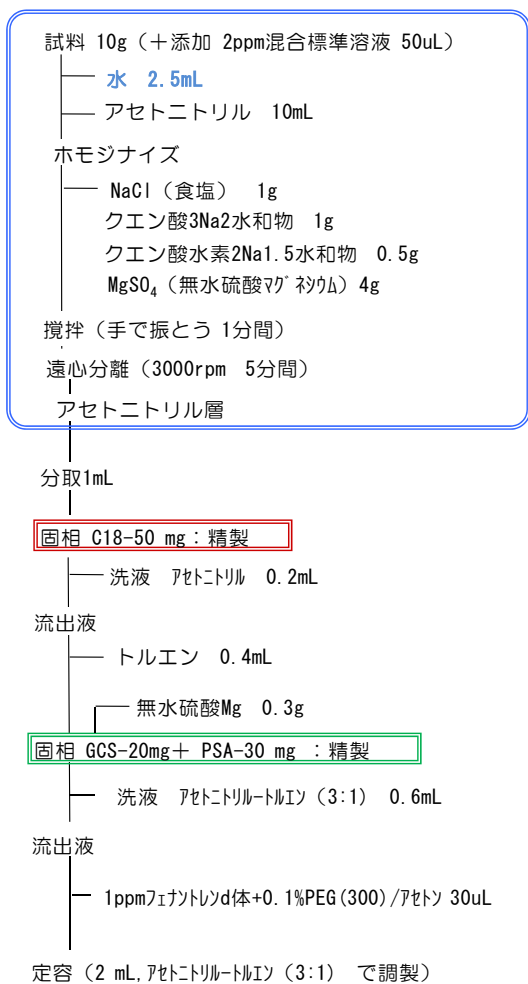


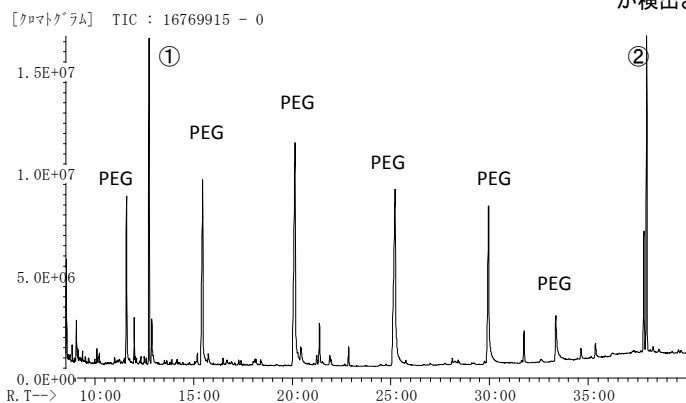
バナナ MA-GCA1

前処理フロー



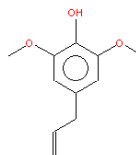
GC/MS (LVI-S200 大量注入20uL : 試料10mg相当)

Scan Chromatogram



【夾雑成分】

① Methoxyeugenol



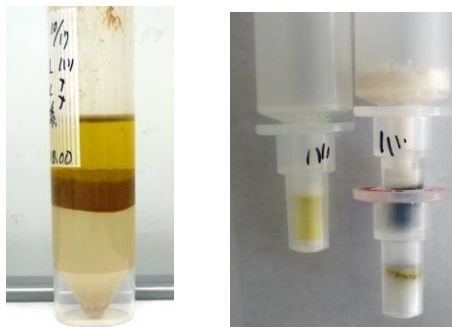
② 不明

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 (アセトン-ヘキサン)
- * 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

B法に比べ、回収率が適正值 (70~120%) から外れるものが多い。回収率が大幅に高くなる農薬があるが (結果表に薄いオレンジで記した)、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。

未知検体からクロルフェナピル、クロルピリホスが検出された。



STQ-KIT
For STQ Method

Sample



Information

水分 : 75.1%
脂質 : 0.2%
脂肪酸 : 0%

水分量が少ないため抽出時に水2.5mLを添加。

バナナは、果柄部を除去したものを皮ごと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	92.8	76	Cypermethrin-3	69.1	151	Fluthiacet-methyl	St-	226	Profenofos	39.4
2	3-Hydroxycarbofuran	46.9	77	Cypermethrin-4	81.6	152	Flutolanil	77.9	227	Prohydrojasmon-1	74.4
3	4,4'-Dichlorobenzophenone	78.2	78	Cyproconazole-1	74.8	153	Flutriafol	73.0	228	Prohydrojasmon-2	St-
4	Acephate	31.3	79	Cyproconazole-2	75.5	154	Fluvalinate-1	247.2	229	Prometryn	71.5
5	Acetamipride	75.9	80	DEF(tribufos)	77.5	155	Fluvalinate-2	256.6	230	Propachlor	92.1
6	Acetochlor	72.2	81	Deltamethrin	60.7	156	Formothion	ND	231	Propanil	73.4
7	Acrinathrin	ND	82	Demeton-S-methyl	79.8	157	Fosthiazate-1	79.5	232	Propaphos	74.8
8	Alachlor	71.5	83	Diallate-1	81.7	158	Fosthiazate-2	71.5	233	Propargite(BPPS)	70.2
9	Allethrin-1,2	St-	84	Diallate-2	73.5	159	Halfenprox	71.8	234	Propazine	72.7
10	Allethrin-3,4	77.1	85	Diazinone	79.4	160	Hexaconazole	71.3	235	Propiconazole-1	77.8
11	Ametryn	78.6	86	Dichlofenthion	74.6	161	Hexazinone	72.8	236	Propiconazole-2	72.5
12	Anilofos	41.8	87	Dichlofuanid	ND	162	Imazamethabenz methyl	75.0	237	Propoxur	84.7
13	Aramite-3	57.8	88	Dichlorvos	72.0	163	Imibenconazole	75.8	238	Propyzamide	72.5
14	Aramite-4	33.2	89	Diclocymet-1	75.6	164	Imibenconazole-des-benzyl	64.8	239	Prothiophos	67.3
15	Atrazine	71.8	90	Diclocymet-2	75.5	165	Iprobenfos	76.6	240	Pyraclufos	70.1
16	Azaconazole	71.9	91	Diclofop-methyl	81.0	166	Iprodione	134.0	241	Pyraflufen-ethyl	75.1
17	Azinphos-Methyl	St-	92	Dicloran	153.9	167	Isazophos	73.2	242	Pyrazophos	68.4
18	Benalaxyl	79.1	93	Dicrotofos	36.9	168	Isofenphos	79.0	243	Pyributicarb	76.1
19	Bendiocarb	37.5	94	Diethofencarb	76.3	169	Isofenphos P=O	77.4	244	Pyridaben	77.3
20	Benfluranlin	314.8	95	Difenoconazole-1	75.0	170	Isoprocarb	44.8	245	Pyridafenthion	164.4
21	Benfuresate	79.0	96	Difenoconazole-2	86.0	171	Isoprothiolane	85.1	246	Pyrifeno-x-1	71.2
22	Benoxacor	76.4	97	Diflufenican	70.3	172	Isoxathion	61.7	247	Pyrifeno-x-2	67.7
23	BHC-alpha	71.0	98	Dimepiperate	73.6	173	Isoxathion-ox	42.9	248	Pyrimethanil	71.2
24	BHC-beta	65.8	99	Dimethametryn	72.8	174	Kresoxim-methyl	76.3	249	Pyrimidifen	82.9
25	BHC-gamma	70.4	100	Dimethenamid	76.0	175	Lenacil	78.8	250	Pyriminobac-methyl-1	79.0
26	BHC-delta	ND	101	Dimethipin	77.0	176	Malathion	38.9	251	Pyriminobac-methyl-2	76.4
27	Bifenox	213.8	102	Dimethoate	ND	177	Mecarbam	St-	252	Pyriproxyfen	81.7
28	Bifenthrin	70.6	103	Dimethylvinphos-z	ND	178	Mefenacet	85.0	253	Pyroquilon	74.9
29	Bitertanol-1	78.4	104	Dioxathion	52.5	179	Mefenpyr-diethyl	80.2	254	Quinoclamine	61.0
30	Bitertanol-2	81.0	105	Diphenamide	78.7	180	Mepronil	84.4	255	Quinolphos	74.5
31	Bromacil	77.4	106	Disulfoton	71.1	181	Metalaxyl	75.2	256	Quinomethionate	ND
32	Bromobutide	80.2	107	Disulfoton sulfone	37.4	182	Methamidophos	58.7	257	Quinoxifen	70.9
33	Bromofos methyl	45.0	108	Edifenphos	63.7	183	Methidathion	ND	258	Quintozen	124.8
34	Bromophos-ethyl	70.8	109	Endosulfan	78.2	184	Methiocarb	ND	259	Resmethrin-1	St-
35	Bromopropylate	80.2	110	Endosulfan II	46.7	185	Methoprene-1	St-	260	Resmethrin-2	72.3
36	Bupimate	79.0	111	Endosulfan sulfate	49.7	186	Methoprene-2	76.8	261	Silafuofen	66.6
37	Buprofezin	75.8	112	EPN	246.7	187	Methoxychlor	67.3	262	Simazin	82.0
38	Butachlor	71.3	113	Epoxiconazole	76.4	188	Metolachlor	77.7	263	Simetryn	74.1
39	Butamifos	95.8	114	EPTC	76.4	189	Metominostrobin-e	75.6	264	Spirodiclofen	St-
40	Butylate	76.6	115	Esprocarb	79.5	190	Metominostrobin-z	72.7	265	Spiroxamine-1	83.8
41	Cadusafos	84.5	116	Ethalfuralin	259.6	191	Mevinphos	77.6	266	Spiroxamine-2	83.7
42	Cafenstrole	107.1	117	Ethiofencarb	65.4	192	Monocrotophos	ND	267	TCMTB	St-
43	Captafol	St-	118	Ethion	76.0	193	Myclobutanil	72.7	268	Tebuconazole	74.8
44	Captan	St-	119	Ethofumesate	77.7	194	Napropamide	84.5	269	Tebufenpyrad	75.5
45	Carbaryl	ND	120	Ethoprophos	87.5	195	Nitrothal-isopropyl	727.0	270	Tecnazene	141.0
46	Carbofuran	67.7	121	Etofenprox	72.3	196	Norflurazon	76.3	271	Tefluthrine	71.5
47	Carboxin	100.3	122	Ettoxazole	74.0	197	Oryzalin	St-	272	Terbacil	77.5
48	Carfentrazone ethyl	73.1	123	Etrifimos	68.5	198	Oxadiazone	77.3	273	Terbufos	57.4
49	Chlorbenside	80.1	124	Fenamidone	90.9	199	Oxadixyl	84.3	274	Terbutryn	82.9
50	Chlorbufam	59.2	125	Fenamiphos	84.7	200	Oxyfluorfen	91.5	275	Tetrachlorvinphos	ND
51	Chlorethoxyphos	79.0	126	Fenarimol	82.9	201	p,p'-DDD	71.1	276	Tetraconazole	81.0
52	Chlorfenapyr	126.4	127	Fenbuconazole	74.7	202	p,p'-DDE	70.5	277	Tetradifon	76.3
53	Chlorfenson	76.0	128	Fenchlorphos	57.2	203	Paclobotrazol	70.2	278	Thenylchlor	75.3
54	Chlorfenvinphos-1	69.9	129	Fenitrothion	68.3	204	Parathion	235.4	279	Thiobencarb	78.9
55	Chlorfenvinphos-2	75.9	130	Fenobucarb	86.8	205	Parathion-methyl	117.9	280	Thiometon	80.6
56	Chlorobenzilate	80.6	131	Fenothiocarb	78.7	206	Penconazole	71.8	281	Tolclofos-methyl	67.6
57	Chloroneb	75.7	132	Fenoxanil	79.3	207	Pendimethalin	268.2	282	Tolfenpyrad	79.3
58	Chlorpropham	88.7	133	Fenpropathrin	81.0	208	Permethrin-cis	72.7	283	Toriadimefon	76.6
59	Chlorpyrifos	78.0	134	Fenpropemorph	82.9	209	Permethrin-trans	75.1	284	Triadimenol-1	71.3
60	Chlorpyrifos-methyl	59.1	135	Fensulfthion	71.4	210	Perthane	72.0	285	Triadimenol-2	70.8
61	Chlorthal-dimethyl	75.2	136	Fenthion	65.7	211	Phenothrin-1	75.3	286	Triallate	71.1
62	Chlozolinate	ND	137	Fenvalerate-1	73.4	212	Phenothrin-2	78.4	287	Triazophos	73.3
63	Cinidon-ethyl	87.5	138	Fenvalerate-2	82.4	213	Phenthoate	46.6	288	Tricyclazole	70.2
64	Clomazone	78.0	139	FIPRONIL	83.6	214	Phorate	81.5	289	Trifloxystrobin	83.9
65	Cyanazine	47.7	140	Flamprop-methyl	71.8	215	Phosalone	77.0	290	Trifluralin	290.4
66	Cyanophos	55.5	141	Fluacrypyrim	81.5	216	Phosmet	36.3	291	Thifluzamide	77.1
67	Cyfluthrin-1	38.8	142	Flucythrinate-1	76.2	217	Phosphamidon	ND	292	Uniconazole	82.2
68	Cyfluthrin-2	95.5	143	Flucythrinate-2	92.1	218	Phthalide	58.7	293	Vinclozoline	75.8
69	Cyfluthrin-3	70.6	144	Fludioxonil	83.2	219	Picolinafen	77.1	294	XMC	85.3
70	Cyfluthrin-4	77.8	145	Flufenpyl-ethyl	85.5	220	Piperonyl butoxide	77.6	295	Zoxamide	St-
71	Cyhalofop-butyl	79.9	146	Flumiclorac-pentyl	91.3	221	Piperophos	79.7			
72	Cyhalothrin-1	80.5	147	Flumioxazin	99.2	222	Pirimicarb	70.8			
73	Cyhalothrin-2	78.6	148	Fluquinconazole	106.8	223	Pirimiphos methyl	66.7			
74	Cypermethrin-1	66.7	149	Fluridone	80.9	224	Pretilachlor	67.2			
75	Cypermethrin-2	71.2	150	Flusilazole	73.8	225	Procymidone	58.4			

*PEG共注に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