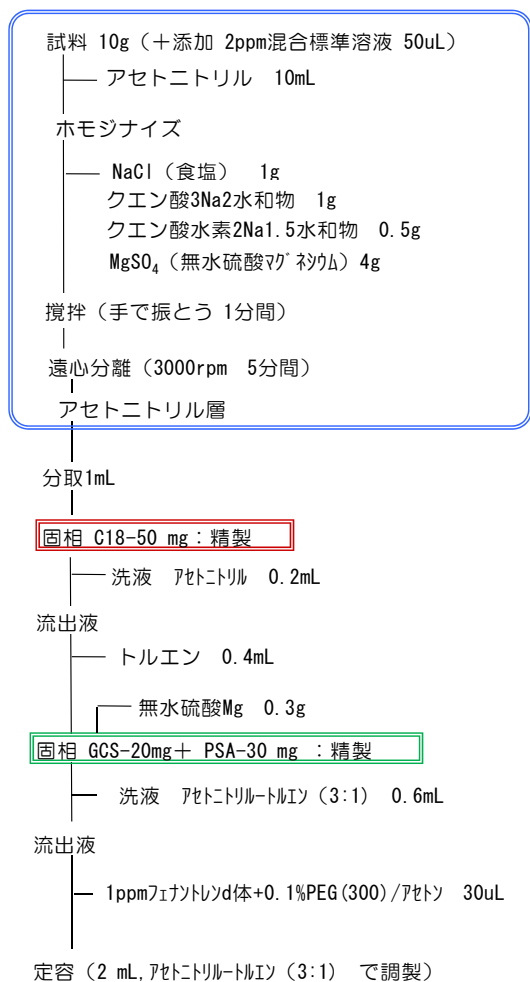


ミニトマト MA-GCA1

前処理フロー

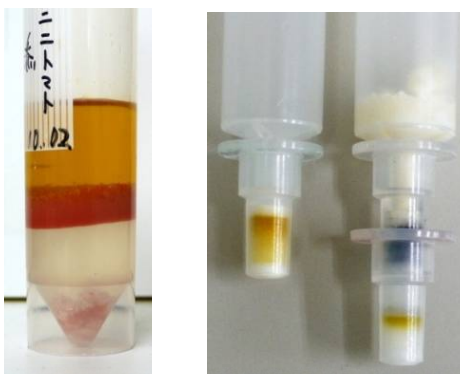


目的/実験方法

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)

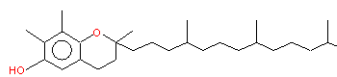


考察

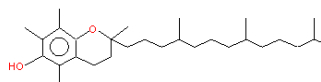
B法に比べ、回収率が適正值 (70~120%) から外れるものが多い。回収率が大幅に高くなる農薬があるが、夾雑ピークや、スタンダードの感度が悪いものが多いためではないかと思われる。

【夾雑成分】

① g-Tocopherol

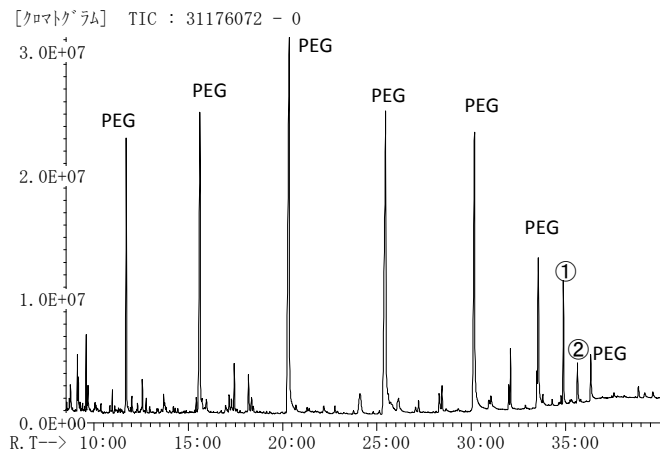


② Vitamin E



GC/MS (LVI-S200 大量注入20μL : 試料10mg相当)

Scan Chromatogram



STQ-KIT
For STQ Method

Sample



Information

水分 : 91.0%
脂質 : 0.1%
脂肪酸 : 0.05%

ミニトマトは、へた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
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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	114.3	76	Cypermethrin-4	78.4	151	Flutolanil	115.4	226	Prohydrojasmon-1	101.7
2	3-Hydroxycarbofuran	74.7	77	Cyproconazole-1	112.8	152	Flutriafol	100.4	227	Prohydrojasmon-2	85.1
3	4,4'-Dichlorobenzophenone	108.8	78	Cyproconazole-2	104.4	153	Fluvalinate-1	ND	228	Prometryn	115.7
4	Acephate	62.5	79	DEF(tribufos)	108.7	154	Fluvalinate-2	ND	229	Propachlor	114.5
5	Acetamipride	132.6	80	Deltamethrin	62.7	155	Formothion	36.6	230	Propanil	112.4
6	Acetochlor	95.4	81	Demeton-S-methyl	104.1	156	Fosthiazate-1	74.0	231	Propaphos	107.0
7	Acrinathrin	ND	82	Diallate-1	109.1	157	Fosthiazate-2	98.0	232	Propargite(BPPS)	97.2
8	Alachlor	90.4	83	Diallate-2	112.1	158	Halfenprox	107.1	233	Propazine	120.5
9	Allethrin-1,2	St-	84	Diazinone	106.9	159	Hexaconazole	94.0	234	Propiconazole-1	109.9
10	Allethrin-3,4	80.5	85	Dichlofenthion	109.2	160	Hexazinone	114.0	235	Propiconazole-2	106.2
11	Ametryn	114.9	86	Dichloruanid	ND	161	Imazamethabenz methyl	96.7	236	Propoxur	97.0
12	Anilofos	ND	87	Dichlorvos	92.4	162	Imibenconazole	74.5	237	Propyzamide	112.8
13	Aramite-3	105.6	88	Diclocymet-1	106.5	163	Imibenconazole-des-benzyl	110.9	238	Prothiophos	102.9
14	Aramite-4	94.0	89	Diclocymet-2	110.4	164	Iprobenfos	111.5	239	Pyraclufos	43.3
15	Atrazine	113.5	90	Diclofop-methyl	106.7	165	Iprodione	49.5	240	Pyraflufen-ethyl	102.3
16	Azaconazole	106.9	91	Dicloran	400.7	166	Isazophos	112.2	241	Pyrazophos	63.5
17	Azinphos-Methyl	121.8	92	Dicrotofos	62.1	167	Isofenphos	100.2	242	Pyributicarb	121.5
18	Benalaxyl	107.9	93	Diethofencarb	120.5	168	Isofenphos P=O	124.8	243	Pyridaben	119.4
19	Bendiocarb	38.8	94	Difenoconazole-1	119.2	169	Isoprocarbe	105.5	244	Pyridafenthion	187.9
20	Benfluranlin	923.2	95	Difenoconazole-2	121.2	170	Isoprothiolane	114.4	245	Pyrifenoxy-1	94.3
21	Benfuresate	116.5	96	Diflufenican	107.7	171	Isoxathion	74.8	246	Pyrifenoxy-2	94.7
22	Benoxacor	110.5	97	Dimepiperate	106.8	172	Isoxathion-ox	ND	247	Pyrimethanil	100.8
23	BHC-alpha	89.2	98	Dimethametryn	110.0	173	Kresoxim-methyl	112.0	248	Pyrimidifen	77.0
24	BHC-beta-gamma	93.1	99	Dimethenamid	124.1	174	Lenacil	112.6	249	Pyriminobac-methyl-1	117.1
25	BHC-delta	39.8	100	Dimethipin	116.1	175	Malathion	ND	250	Pyriminobac-methyl-2	106.5
26	Bifenox	487.5	101	Dimethoate	46.8	176	Mecarbam	84.7	251	Pyriproxyfen	109.0
27	Bifenthrin	106.7	102	Dimethylvinphos-z	45.5	177	Mefenacet	107.4	252	Pyroquilon	111.9
28	Bitertanol-1	122.9	103	Dioxathion	74.2	178	Mefenpyr-diethyl	117.4	253	Quinoclamine	ND
29	Bitertanol-2	119.6	104	Diphenamide	120.0	179	Mepronil	124.2	254	Quinolphos	101.6
30	Bromacil	111.5	105	Disulfoton	108.4	180	Metalaxyl	109.6	255	Quinomethionate	ND
31	Bromobutide	110.6	106	Disulfoton sulfone	ND	181	Methamidophos	106.9	256	Quinoxifen	86.1
32	Bromofos methyl	49.9	107	Edifenphos	ND	182	Methidathion	30.7	257	Quintozen	294.1
33	Bromophos-ethyl	92.1	108	Endosulfan	96.4	183	Methiocarb	33.9	258	Resmethrin-1	116.7
34	Bromopropylate	119.8	109	Endosulfan II	102.8	184	Methoprene-1	127.3	259	Resmethrin-2	114.7
35	Bupimate	118.4	110	Endosulfan sulfate	55.1	185	Methoprene-2	117.4	260	Silaflofen	100.0
36	Buprofezin	110.0	111	EPN	332.7	186	Methoxychlor	109.1	261	Simazin	112.3
37	Butachlor	95.9	112	Epoxiconazole	113.1	187	Metolachlor	116.4	262	Simetryn	116.6
38	Butamifos	239.8	113	EPTC	92.2	188	Metominostrobin-e	128.5	263	Spirodiclofen	ND
39	Butylate	95.8	114	Esprocarb	113.0	189	Metominostrobin-z	124.8	264	Spiroxamine-1	128.7
40	Cadusafos	123.8	115	Ethalfuralin	871.3	190	Mevinphos	100.7	265	Spiroxamine-2	123.9
41	Cafenstrole	ND	116	Ethiofencarb	62.4	191	Monocrotophos	ND	266	TCMTB	St-
42	Captafol	St-	117	Ethion	97.1	192	Myclobutanil	114.0	267	Tebuconazole	109.4
43	Captan	ND	118	Ethofumesate	117.9	193	Napropamide	122.5	268	Tebufenpyrad	117.1
44	Carbaril	ND	119	Ethoprophos	116.7	194	Nitrothal-isopropyl	230.7	269	Tecnazene	186.9
45	Carbofuran	76.9	120	Etofenprox	106.6	195	Norflurazon	114.7	270	Tefluthrine	102.2
46	Carboxin	161.3	121	Etoxazole	111.9	196	Oryzalin	St-	271	Terbacil	123.4
47	Carfentrazone ethyl	93.7	122	Etrimfos	83.3	197	Oxadiazone	117.1	272	Terbufos	116.0
48	Chlorbenside	102.3	123	Fenamidone	146.1	198	Oxadixyl	119.8	273	Terbutryn	116.7
49	Chlorbufam	112.4	124	Fenamiphos	113.3	199	Oxyfluorfen	189.6	274	Tetrachlorvinphos	ND
50	Chlorethoxyphos	107.6	125	Fenarimol	117.0	200	p,p'-DDD	103.7	275	Tetraconazole	110.7
51	Chlorfenapyr	96.2	126	Fenbuconazole	115.0	201	p,p'-DDE	97.3	276	Tetradifon	111.4
52	Chlorfenson	109.2	127	Fenchlorphos	59.7	202	Paclobutrazol	102.6	277	Thenylchlor	89.0
53	Chlorfenvinphos-1	115.2	128	Fenitrothion	104.8	203	Parathion	419.0	278	Thiobencarb	112.4
54	Chlorfenvinphos-2	102.0	129	Fenobucarb	113.4	204	Parathion-methyl	190.4	279	Thiometon	110.8
55	Chlorobenzilate	116.0	130	Fenothiocarb	110.8	205	Penconazole	100.7	280	Tolclofos-methyl	92.5
56	Chloroneb	99.8	131	Fenoxanil	124.0	206	Pendimethalin	594.2	281	Tolfenpyrad	113.6
57	Chlorpropham	114.7	132	Fenpropathrin	105.6	207	Permethrin-cis	108.5	282	Toriadimefon	122.0
58	Chlorpyrifos	105.1	133	Fenpropemorph	117.5	208	Permethrin-trans	110.0	283	Triadimenol-1	109.8
59	Chlorpyrifos-methyl	67.2	134	Fensulfotion	82.4	209	Perthane	106.9	284	Triadimenol-2	111.0
60	Chlorthal-dimethyl	108.9	135	Fenthion	82.5	210	Phenothrin-1	110.8	285	Triallate	101.2
61	Chlozolinate	ND	136	Fenvalerate-1	84.9	211	Phenothrin-2	112.7	286	Triazophos	89.3
62	Cinidon-ethyl	125.4	137	Fenvalerate-2	79.2	212	Phenthoate	57.0	287	Tricyclazole	102.6
63	Clomazone	115.5	138	FIPRONIL	117.8	213	Phorate	128.4	288	Trifloxystrobin	118.1
64	Cyanazine	38.1	139	Flamprop-methyl	114.1	214	Phosalone	53.0	289	Trifluralin	793.8
65	Cyanophos	56.4	140	Fluacrypyrim	125.7	215	Phosmet	ND	290	Thifluzamide	120.6
66	Cyfluthrin-1	51.5	141	Flucythrinate-1	99.6	216	Phosphamidon	38.5	291	Uniconazole	119.1
67	Cyfluthrin-2	70.5	142	Flucythrinate-2	84.5	217	Phthalide	86.8	292	Vincololine	117.6
68	Cyfluthrin-3	68.1	143	Fludioxonil	117.9	218	Picolinafen	113.4	293	XMC	106.1
69	Cyfluthrin-4	66.5	144	Flufenpyl-ethyl	108.0	219	Piperonyl butoxide	116.7	294	Zoxamide	97.6
70	Cyhalofop-butyl	117.2	145	Flumiclorac-pentyl	108.7	220	Piperophos	110.0			
71	Cyhalothrin-1	65.0	146	Flumioxazin	144.6	221	Pirimicarb	112.1			
72	Cyhalothrin-2	95.3	147	Fluquinacozazole	63.6	222	Pirimiphos methyl	94.7			
73	Cypermethrin-1	69.7	148	Fluridone	115.5	223	Pretilachlor	100.3			
74	Cypermethrin-2	90.1	149	Flusilazole	106.1	224	Procymidone	111.0			
75	Cypermethrin-3	96.7	150	Fluthiacet-methyl	ND	225	Profenofos	91.0			

*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