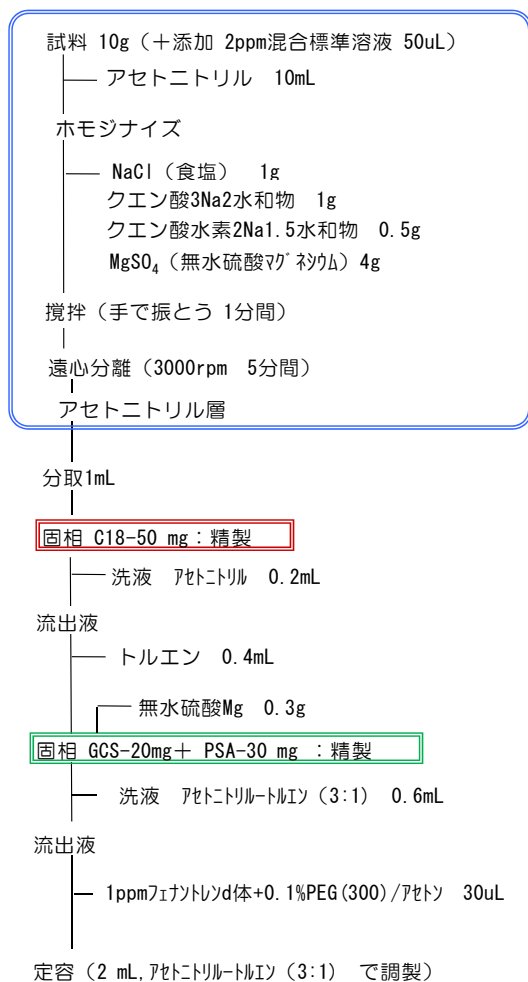


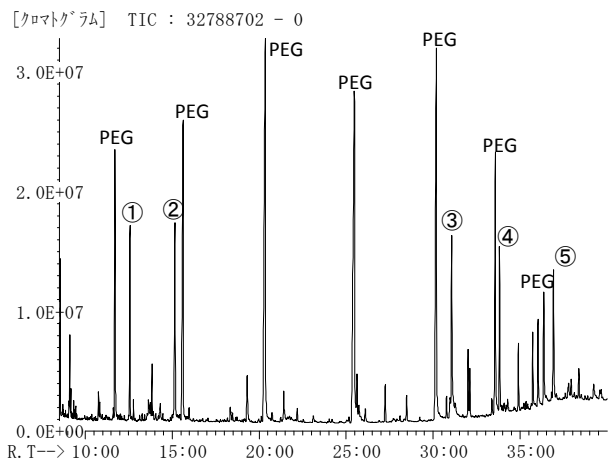
枝豆 (冷凍食品、ゆで済) MA-GCA1

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d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d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と思われる。

未知検体からは、アセタミプリド (L-B法では添加回収率が低いため検出せず)、エトフェンプロックスが検出された。

【夾雑成分】

- ① Cyclohexyl isopropylphosphonofluoridate
- ② 4-((1E)-3-Hydroxy-1-propenyl)-2-methoxyphenol
- ③ Ethyl linolenate
- ④ d-Tocopherol
- ⑤ 不明



STQ-KIT
For STQ Method

Sample



Information

水分 : 72.1% (ゆで)
脂質 : 6.1% (ゆで)
脂肪酸 : 5.58% (ゆで)

枝豆は、花梗を除い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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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	86.0	76	Cypermethrin-4	79.0	151	Flutolanil	87.3	226	Prohydrojasmon-1	82.4
2	3-Hydroxycarbofuran	199.1	77	Cyproconazole-1	82.3	152	Flutriafol	78.6	227	Prohydrojasmon-2	St-
3	4,4'-Dichlorobenzophenone	81.7	78	Cyproconazole-2	76.2	153	Fluvalinate-1	63.2	228	Prometryn	83.5
4	Acephate	63.4	79	DEF(tribufos)	77.3	154	Fluvalinate-2	73.7	229	Propachlor	75.9
5	Acetamipride	109.0	80	Deltamethrin	76.1	155	Formothion	108.7	230	Propanil	89.6
6	Acetochlor	81.8	81	Demeton-S-methyl	88.7	156	Fosthiazate-1	84.4	231	Propaphos	87.4
7	Acrinathrin	112.2	82	Diallate-1	84.0	157	Fosthiazate-2	81.3	232	Propargite(BPPS)	83.1
8	Alachlor	87.2	83	Diallate-2	83.6	158	Halfenprox	81.1	233	Propazine	82.1
9	Allethrin-1,2	St-	84	Diazinone	81.0	159	Hexaconazole	77.2	234	Propiconazole-1	78.3
10	Allethrin-3,4	64.4	85	Dichlofenthion	82.7	160	Hexazinone	84.0	235	Propiconazole-2	82.2
11	Ametryn	81.2	86	Dichlofluanid	ND	161	Imazamethabenz methyl	84.3	236	Propoxur	94.7
12	Anilofos	55.7	87	Dichlorvos	81.0	162	Imibenconazole	73.9	237	Propyzamide	82.8
13	Aramite-3	82.0	88	Diclocymet-1	85.9	163	Imibenconazole-des-benzyl	73.0	238	Prothiophos	78.6
14	Aramite-4	81.0	89	Diclocymet-2	87.6	164	Iprobenfos	87.8	239	Pyraclufos	63.1
15	Atrazine	88.3	90	Diclofop-methyl	80.8	165	Iprodione	133.3	240	Pyraflufen-ethyl	84.9
16	Azaconazole	77.9	91	Dicloran	186.9	166	Isazophos	86.1	241	Pyrazophos	70.8
17	Azinphos-Methyl	57.9	92	Dicrotofos	87.6	167	Isofenphos	91.4	242	Pyributicarb	88.9
18	Benalaxyl	86.6	93	Diethofencarb	88.8	168	Isofenphos P=O	91.6	243	Pyridaben	89.6
19	Bendiocarb	157.9	94	Difenoconazole-1	85.7	169	Isoprocarbe	83.6	244	Pyridafenthion	219.1
20	Benfluranlin	254.9	95	Difenoconazole-2	100.0	170	Isoprothiolane	87.3	245	Pyrifenox-1	72.9
21	Benfuresate	83.5	96	Diflufenican	72.9	171	Isoxathion	78.6	246	Pyrifenox-2	74.8
22	Benoxacor	88.8	97	Dimepiperate	78.7	172	Isoxathion-ox	103.2	247	Pyrimethanil	76.1
23	BHC-alpha	83.0	98	Dimethametryn	81.7	173	Kresoxim-methyl	85.3	248	Pyrimidifen	69.7
24	BHC-beta-gamma	79.3	99	Dimethenamid	85.8	174	Lenacil	83.8	249	Pyriminobac-methyl-1	91.2
25	BHC-delta	160.0	100	Dimethipin	100.9	175	Malathion	81.6	250	Pyriminobac-methyl-2	81.6
26	Bifenox	317.5	101	Dimethoate	73.1	176	Mecarbam	86.2	251	Pyriproxyfen	81.9
27	Bifenthrin	82.0	102	Dimethylvinphos-z	75.4	177	Mefenacet	87.3	252	Pyroquilon	75.9
28	Bitertanol-1	ND	103	Dioxathion	95.5	178	Mefenpyr-diethyl	89.6	253	Quinoclamine	335.4
29	Bitertanol-2	103.7	104	Diphenamide	83.9	179	Mepronil	97.0	254	Quinolphos	81.9
30	Bromacil	93.2	105	Disulfoton	80.9	180	Metalaxyl	87.3	255	Quinomethionate	ND
31	Bromobutide	83.7	106	Disulfoton sulfone	87.4	181	Methamidophos	68.0	256	Quinoxyfen	65.0
32	Bromofos methyl	76.2	107	Edifenphos	80.8	182	Methidathion	69.3	257	Quintozen	136.0
33	Bromophos-ethyl	73.4	108	Endosulfan	65.9	183	Methiocarb	147.2	258	Resmethrin-1	53.4
34	Bromopropylate	93.0	109	Endosulfan II	89.5	184	Methoprene-1	90.0	259	Resmethrin-2	45.9
35	Bupimate	87.2	110	Endosulfan sulfate	112.4	185	Methoprene-2	66.2	260	Silafluofen	72.8
36	Buprofezin	80.2	111	EPN	437.7	186	Methoxychlor	84.5	261	Simazin	99.5
37	Butachlor	84.0	112	Epoxiconazole	84.5	187	Metolachlor	87.4	262	Simetryn	81.7
38	Butamifos	146.4	113	EPTC	73.3	188	Metominostrobin-e	90.1	263	Spirodiclofen	82.6
39	Butylate	77.8	114	Esprocarb	83.5	189	Metominostrobin-z	85.7	264	Spiroxamine-1	87.6
40	Cadusafos	85.4	115	Ethalfuralin	257.6	190	Mevinphos	100.4	265	Spiroxamine-2	97.8
41	Cafenstrole	67.7	116	Ethiofencarb	113.3	191	Monocrotophos	53.1	266	TCMTB	113.1
42	Captafol	St-	117	Ethion	86.6	192	Myclobutanil	86.0	267	Tebuconazole	74.0
43	Captan	ND	118	Ethofumesate	88.6	193	Napropamide	89.3	268	Tebufenpyrad	87.7
44	Carbaril	188.2	119	Ethoprophos	89.9	194	Nitrothal-isopropyl	333.6	269	Tecnazene	108.4
45	Carbofuran	103.1	120	Etofenprox	71.3	195	Norflurazon	85.7	270	Tefluthrine	78.1
46	Carboxin	84.6	121	Etoxazole	80.8	196	Oryzalin	St-	271	Terbacil	87.9
47	Carfentrazone ethyl	89.8	122	Etrifos	81.8	197	Oxadiazone	83.6	272	Terbufos	89.4
48	Chlorbenside	74.7	123	Fenamidone	91.9	198	Oxadixyl	106.6	273	Terbutryn	84.0
49	Chlorbufam	102.8	124	Fenamiphos	92.3	199	Oxyfluorfen	127.9	274	Tetrachlorvinphos	67.8
50	Chlorethoxyphos	88.2	125	Fenarimol	79.5	200	p,p'-DDD	82.0	275	Tetraconazole	84.6
51	Chlorfenapyr	80.6	126	Fenbuconazole	84.1	201	p,p'-DDE	66.1	276	Tetradifon	82.7
52	Chlorfenson	85.3	127	Fenchlorphos	75.2	202	Paclobutrazol	82.6	277	Thenylchlor	85.1
53	Chlorfenvinphos-1	78.2	128	Fenitrothion	143.3	203	Parathion	252.1	278	Thiobencarb	82.7
54	Chlorfenvinphos-2	81.7	129	Fenobucarb	86.6	204	Parathion-methyl	165.1	279	Thiometon	83.1
55	Chlorobenzilate	87.0	130	Fenothiocarb	87.7	205	Penconazole	78.4	280	Tolclofos-methyl	83.4
56	Chloroneb	76.4	131	Fenoxanil	89.2	206	Pendimethalin	243.6	281	Tolfenpyrad	82.1
57	Chlorpropham	87.8	132	Fenpropathrin	91.5	207	Permethrin-cis	88.8	282	Toriadimefon	101.5
58	Chlorpyrifos	85.7	133	Fenpropemorph	87.2	208	Permethrin-trans	94.6	283	Triadimenol-1	76.1
59	Chlorpyrifos-methyl	79.9	134	Fensulfothion	87.6	209	Perthane	78.4	284	Triadimenol-2	88.8
60	Chlorthal-dimethyl	84.2	135	Fenthion	80.8	210	Phenothrin-1	84.0	285	Triallate	78.7
61	Chlozolinate	119.2	136	Fenvalerate-1	79.1	211	Phenothrin-2	81.0	286	Triazophos	80.3
62	Cinidon-ethyl	94.1	137	Fenvalerate-2	95.3	212	Phenthoate	67.6	287	Tricyclazole	76.1
63	Clomazone	92.5	138	FIPRONIL	110.7	213	Phorate	91.8	288	Trifloxystrobin	90.8
64	Cyanazine	68.0	139	Flamprop-methyl	86.3	214	Phosalone	67.8	289	Trifluralin	235.3
65	Cyanophos	79.6	140	Fluacrypyrim	90.1	215	Phosmet	63.0	290	Thifluzamide	94.7
66	Cyfluthrin-1	72.9	141	Flucythrinate-1	92.7	216	Phosphamidon	70.9	291	Uniconazole	79.7
67	Cyfluthrin-2	82.8	142	Flucythrinate-2	92.7	217	Phthalide	74.2	292	Vinclozolin	86.3
68	Cyfluthrin-3	88.7	143	Fludioxonil	86.1	218	Picolinafen	83.8	293	XMC	99.7
69	Cyfluthrin-4	91.3	144	Flufenpyl-ethyl	109.0	219	Piperonyl butoxide	81.3	294	Zoxamide	115.4
70	Cyhalofop-butyl	86.4	145	Flumiclorac-pentyl	123.6	220	Piperophos	99.0			
71	Cyhalothrin-1	97.5	146	Flumioxazin	130.4	221	Pirimicarb	75.1			
72	Cyhalothrin-2	86.4	147	Fluquinconazole	85.0	222	Pirimiphos methyl	82.5			
73	Cypermethrin-1	104.5	148	Fluridone	86.3	223	Pretilachlor	88.9			
74	Cypermethrin-2	81.5	149	Flusilazole	80.0	224	Procymidone	83.6			
75	Cypermethrin-3	73.2	150	Fluthiacet-methyl	57.9	225	Profenofos	88.6			

*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