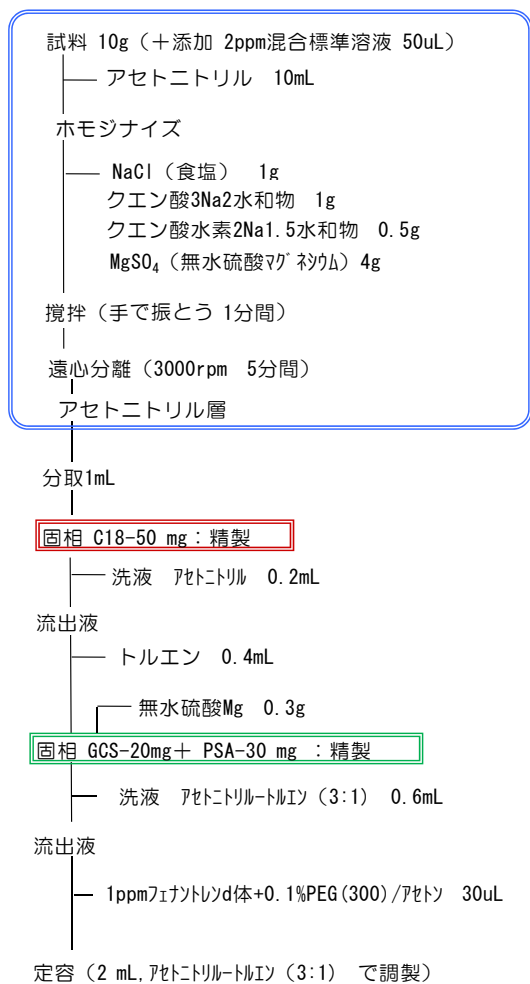


キャベツ MA-GCA1

前処理フロー

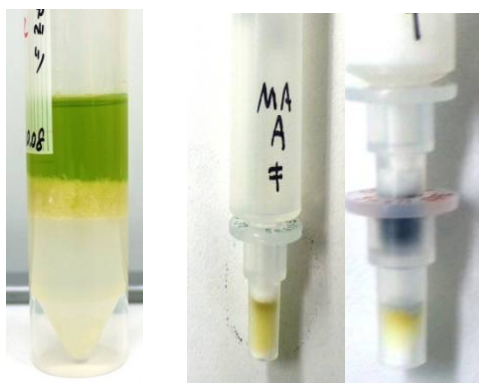


目的/実験方法

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

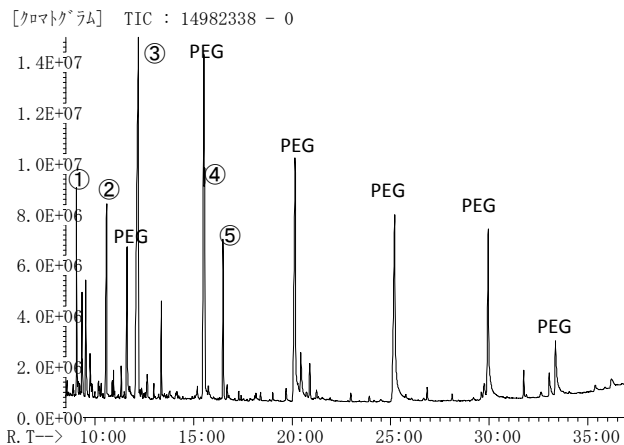
B法に比べ、回収率が適正值(70~120%)から外れるものがやや多い。回収率が大幅に高くなる農薬があるが、夾雑ピークや、スタンダードの感度が悪いものが多いためではないかと思われる。

【夾雑成分】

- ① Dimethyl tetrasulfide CSSSCC
- ② Iberin nitrile CCCCC#N
- ③ Sulforaphane nitrile CCCCC#N
- ④ Sulforaphane CCCCC#N
- ⑤ Indolylacetonitrile C#NCC1=CC=C2C(=C1)C=CN2

GC/MS (LVI-S200 大量注入20uL : 試料10mg相当)

Scan Chromatogram



STQ-KIT
For STQ Method

Sample



Information

水分 : 92.7%
脂質 : 0.2%
脂肪酸 : 0.05%

キャベツは、外側変質葉及びしんを除いたものを4等分し、各々から1/2等分を集めたものをフードプロセッサで細切。

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	73.4	76	Cypermethrin-3	52.3	151	Fluthiacet-methyl	45.8	226	Profenfosfos	63.0
2	3-Hydroxycarbofuran	68.7	77	Cypermethrin-4	60.6	152	Flutolanil	65.4	227	Prohydrojasmon-1	60.1
3	4,4'-Dichlorobenzophenone	65.8	78	Cyproconazole-1	59.6	153	Flutriafol	57.1	228	Prohydrojasmon-2	St-
4	Acephate	ND	79	Cyproconazole-2	55.0	154	Fluvalinate-1	77.1	229	Prometryn	67.0
5	Acetamipride	63.7	80	DEF(tribufos)	63.8	155	Fluvalinate-2	78.8	230	Propachlor	55.1
6	Acetochlor	60.5	81	Deitamehrin	72.8	156	Formothion	35.7	231	Propanil	44.3
7	Acrinathrin	102.5	82	Demeton-S-methyl	60.3	157	Fosthiazate-1	57.8	232	Propaphos	61.6
8	Alachlor	55.6	83	Diallate-1	70.9	158	Fosthiazate-2	76.7	233	Propargite(BPPS)	55.4
9	Allethrin-1,2	St-	84	Diallate-2	65.2	159	Halfenprox	65.0	234	Propazine	68.6
10	Allethrin-3,4	60.2	85	Diazinone	67.3	160	Hexaconazole	60.1	235	Propiconazole-1	69.3
11	Ametryn	60.3	86	Dichlofenthion	66.9	161	Hexazinone	59.9	236	Propiconazole-2	57.1
12	Anilofos	ND	87	Dichloruanid	ND	162	Imazamethabenz methyl	65.3	237	Propoxur	73.9
13	Aramite-3	47.5	88	Dichlorvos	66.7	163	Imibenconazole	59.7	238	Propyzamide	ND
14	Aramite-4	44.4	89	Diclocymet-1	58.2	164	Imibenconazole-des-benzyl	62.4	239	Prothiophos	64.1
15	Atrazine	61.0	90	Diclocymet-2	55.6	165	Iprobenfos	64.8	240	Pyraclufos	40.8
16	Azaconazole	59.3	91	Diclofop-methyl	61.0	166	Iprodione	103.5	241	Pyraflufen-ethyl	62.3
17	Azinphos-Methyl	St-	92	Dicloran	291.5	167	Isazophos	60.2	242	Pyrazophos	48.9
18	Benalaxyl	54.7	93	Dicrotofos	53.7	168	Isofenphos	73.5	243	Pyributicarb	66.9
19	Bendiocarb	75.9	94	Diethofencarb	62.2	169	Isofenphos P=O	62.6	244	Pyridaben	60.1
20	Benfluranlin	464.9	95	Difenoconazole-1	49.9	170	Isoprocarbe	64.4	245	Pyridafenthion	156.4
21	Benfuresate	64.3	96	Difenoconazole-2	61.5	171	Isoprothiolane	71.8	246	Pyrifeno-x-1	52.3
22	Benoxacor	71.0	97	Diflufenican	56.1	172	Isoxathion	50.9	247	Pyrifeno-x-2	61.8
23	BHC-alpha	66.8	98	Dimepiperate	53.8	173	Isoxathion-ox	35.4	248	Pyrimethanil	58.9
24	BHC-beta	58.3	99	Dimethametryn	53.7	174	Kresoxim-methyl	66.7	249	Pyrimidifen	68.2
25	BHC-gamma	66.9	100	Dimethenamid	62.0	175	Lenacil	62.6	250	Pyriminobac-methyl-1	65.3
26	BHC-delta	85.0	101	Dimethipin	ND	176	Malathion	39.7	251	Pyriminobac-methyl-2	59.8
27	Bifenox	434.1	102	Dimethoate	38.0	177	Mecarbam	St-	252	Pyriproxyfen	61.2
28	Bifenthrin	57.4	103	Dimethylvinphos-z	43.2	178	Mefenacet	61.6	253	Pyroquilon	72.1
29	Bitertanol-1	60.9	104	Dioxathion	31.8	179	Mefenpyr-diethyl	64.8	254	Quinoclamine	147.4
30	Bitertanol-2	63.9	105	Diphenamide	65.2	180	Mepronil	73.3	255	Quinolophos	76.4
31	Bromacil	65.6	106	Disulfoton	41.9	181	Metalaxyl	69.7	256	Quinomethionate	ND
32	Bromobutide	64.0	107	Disulfoton sulfone	72.3	182	Methamidophos	54.7	257	Quinoxifen	52.9
33	Bromofos methyl	49.6	108	Edifenphos	47.3	183	Methidathion	30.5	258	Quintozen	213.9
34	Bromophos-ethyl	59.8	109	Endosulfan	60.8	184	Methiocarb	94.0	259	Resmethrin-1	St-
35	Bromopropylate	64.3	110	Endosulfan II	60.1	185	Methoprene-1	St-	260	Resmethrin-2	ND
36	Bupimate	64.2	111	Endosulfan sulfate	75.7	186	Methoprene-2	71.8	261	Silafiuofen	54.5
37	Buprofezin	58.8	112	EPN	612.9	187	Methoxychlor	57.1	262	Simazin	48.0
38	Butachlor	55.2	113	Epoxiconazole	60.4	188	Metolachlor	62.7	263	Simetryn	54.2
39	Butamifos	137.8	114	EPTC	64.5	189	Metominostrobin-e	69.3	264	Spirodiclofen	ND
40	Butylate	66.0	115	Esprocarb	63.2	190	Metominostrobin-z	72.0	265	Spiroxamine-1	ND
41	Cadusafos	70.6	116	Ethalfuralin	384.6	191	Mevinphos	71.5	266	Spiroxamine-2	70.0
42	Cafenstrole	54.5	117	Ethiofencarb	79.0	192	Monocrotophos	50.1	267	TCMTB	ND
43	Captafol	St-	118	Ethion	62.9	193	Myclobutanil	59.8	268	Tebuconazole	55.3
44	Captan	St-	119	Ethofumesate	65.4	194	Napropamide	62.4	269	Tebufenpyrad	64.1
45	Carbaril	106.2	120	Ethoprophos	72.3	195	Nitrothal-isopropyl	661.6	270	Tecnazene	172.4
46	Carbofuran	73.0	121	Etofenprox	60.3	196	Norflurazon	60.9	271	Tefluthrine	53.7
47	Carboxin	72.7	122	Etoxazole	64.5	197	Oryzalin	St-	272	Terbacil	68.6
48	Carfentrazone ethyl	50.4	123	Etrimfos	58.5	198	Oxadiazone	61.7	273	Terbufos	49.0
49	Chlorbenside	76.2	124	Fenamidone	76.2	199	Oxadixyl	72.5	274	Terbutryn	65.2
50	Chlorbufam	59.9	125	Fenamiphos	65.6	200	Oxyfluorfene	161.3	275	Tetrachlorvinphos	33.0
51	Chlorethoxyphos	72.3	126	Fenarimol	66.5	201	p,p'-DDD	64.3	276	Tetraconazole	61.9
52	Chlorfenapyr	57.6	127	Fenbuconazole	65.3	202	p,p'-DDE	55.6	277	Tetraclonifen	63.1
53	Chlorfenson	64.4	128	Fenchlorphos	53.0	203	Paclobotrazol	60.2	278	Thenylchlor	34.2
54	Chlorfenvinphos-1	55.2	129	Fenitrothion	100.9	204	Parathion	444.5	279	Thiobencarb	62.9
55	Chlorfenvinphos-2	70.5	130	Fenobucarb	67.7	205	Parathion-methyl	141.8	280	Thiometon	63.3
56	Chlorobenzilate	64.6	131	Fenothiocarb	70.4	206	Penconazole	56.3	281	Tolclofos-methyl	59.2
57	Chloroneb	58.6	132	Fenoxanil	62.4	207	Pendimethalin	433.0	282	Tolfenpyrad	61.3
58	Chlorpropham	66.1	133	Fenpropathrin	75.2	208	Permethrin-cis	61.9	283	Toriadimefon	58.3
59	Chlorpyrifos	62.9	134	Fenpropemorph	64.5	209	Permethrin-trans	60.8	284	Triadimenol-1	54.8
60	Chlorpyrifos-methyl	54.9	135	Fensulfothion	70.8	210	Perthane	59.3	285	Triadimenol-2	52.4
61	Chlorthal-dimethyl	60.9	136	Fenthion	54.5	211	Phenothrin-1	58.8	286	Triallate	59.9
62	Chlozolinate	72.9	137	Fenvalerate-1	59.2	212	Phenothrin-2	68.4	287	Triazophos	49.6
63	Cinidon-ethyl	108.5	138	Fenvalerate-2	67.5	213	Phenthoate	43.2	288	Tricyclazole	66.9
64	Ciomezone	65.5	139	FIPRONIL	71.3	214	Phorate	67.8	289	Trifloxystrobin	70.9
65	Cyanazine	51.1	140	Flamprop-methyl	67.8	215	Phosalone	45.5	290	Trifluralin	442.0
66	Cyanophos	45.6	141	Fluacrypyrim	72.1	216	Phosmet	35.3	291	Thifluzamide	70.3
67	Cyfluthrin-1	57.4	142	Flucythrinate-1	66.0	217	Phosphamidon	43.4	292	Uniconazole	63.4
68	Cyfluthrin-2	74.5	143	Flucythrinate-2	67.7	218	Phthalide	42.8	293	Vinclozoline	63.9
69	Cyfluthrin-3	64.8	144	Fludioxonil	61.9	219	Picolinafen	60.6	294	XMC	57.5
70	Cyfluthrin-4	60.4	145	Flufenpyl-ethyl	96.0	220	Piperonyl butoxide	63.3	295	Zoxamide	ND
71	Cyhalofop-butyl	64.0	146	Flumiclorac-pentyl	109.1	221	Piperophos	56.6			
72	Cyhalothrin-1	73.6	147	Flumioxazin	106.7	222	Pirimicarb	59.4			
73	Cyhalothrin-2	69.4	148	Fluquinacozazole	65.5	223	Pirimiphos methyl	61.7			
74	Cypermethrin-1	61.8	149	Fluridone	63.0	224	Pretilachlor	51.3			
75	Cypermethrin-2	85.4	150	Flusilazole	60.3	225	Procymidone	57.4			

*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