S1. CAS number, retention time of the 209 pesticides

Pesticides	CAS	RT（min）
1,2-Dibromo-3-chloropropane	96-12-8	4.47
Dichlorvos	62-73-7	6.19
Disulfoton sulfoxide	2497-07-6	7.30
Mevinphos(E)	298-01-1	9.00
Butylate	2008-41-5	9.08
Mevinphos(Z)	338-45-4	9.17
Pebulate	1114-71-2	9.62
Methacrifos	62610-77-9	10.46
Molinate	2212-67-1	11.07
Isoprocarb	2631-40-5	11.13
Heptenophos	23560-59-0	11.90
Chlorphenprop-methyl	14437-17-3	12.14
Thionazin	297-97-2	12.48
Fenobucarb	3766-81-2	12.51
Propoxur	114-26-1	12.58
Demeton-O	298-03-3	12.61
Demeton-S-methyl	919-86-8	12.73
Cycloate	1134-23-2	13.00
Ethoprophos	13194-48-4	13.01
Chlorpropham	101-21-3	13.34
Naled	300-76-5	13.42
Chlordimeform	6164-98-3	13.47
Trifluralin	1582-09-8	13.95
Benfluralin	1861-40-1	14.03
Cadusafos	95465-99-9	14.08
Phorate	298-02-2	14.22
BHC-alpha	608-73-1	14.32
Hexachlorobenzene	118-74-1	14.59
Dicloran	99-30-9	14.78
Demeton-S	126-75-0	14.85
Dimethoate	60-51-5	14.88
Carbofuran	1563-66-2	15.21
Atrazine	1912-24-9	15.32
BHC-beta	608-73-1	15.36
Clomazone	81777-89-1	15.39
Propazine	139-40-2	15.49
Terbumeton	33693-04-8	15.56

BHC-gamma	608-73-1	15.58
Quintozene	82-68-8	15.67
Terbufos	13071-79-9	15.87
Trietazine	1912-26-1	15.92
Fonofos	944-22-9	15.94
Phosphamidon(E)	297-99-4	16.33
Diazinon	333-41-5	16.42
Disulfoton	298-04-4	16.45
BHC-delta	608-73-1	16.52
Mexacarbate	315-18-4	16.77
Triallate	2302-17-5	16.84
Tefluthrin	79538-32-2	16.88
Isazofos	42509-80-8	16.89
3-Hydroxycarbofuran	16655-82-6	16.95
Iprobenfos	26087-47-8	17.14
Pirimicarb	23103-98-2	17.38
Benfuresate	68505-69-1	17.63
Phosphamidon(Z)	23783-98-4	17.69
Propanil	709-98-8	17.73
Dimethachlor	50563-36-5	17.79
Acetochlor	34256-82-1	18.06
Parathion-methyl	298-00-0	18.10
Chlorpyrifos-methyl	5598-13-0	18.11
Vinclozolin	50471-44-8	18.12
Simetryn	1014-70-6	18.26
Carbaryl	63-25-2	18.27
Tolclofos-methyl	57018-04-9	18.27
Heptachlor	76-44-8	18.30
Alachlor	15972-60-8	18.42
Prometryn	7287-19-6	18.62
Metalaxyl	57837-19-1	18.64
Fenchlorphos	299-84-3	18.66
Prosulfocarb	52888-80-9	18.78
Demeton-S-methyl sulfone	17040-19-6	18.83
Thiobencarb	28249-77-6	19.00
Orbencarb	34622-58-7	19.02
Methiocarb	2032-65-7	19.16
Fenitrothion	122-14-5	19.19
Pentanochlor	2307-68-8	19.26
Pirimiphos-methyl	29232-93-7	19.31

Bromacil	314-40-9	19.31
Ethofumesate	26225-79-6	19.33
Aldrin	309-00-2	19.59
Malathion	121-75-5	19.65
Phorate-sulfone	2588-04-7	19.77
Metolachlor	51218-45-2	19.78
Fenthion	55-38-9	19.91
Dicofol	115-32-2	19.94
Parathion	56-38-2	19.97
Thiazopyr	117718-60-2	19.98
Chlorpyrifos	2921-88-2	19.99
Triadimefon	43121-43-3	20.11
Chlorthal-dimethyl	1861-32-1	20.15
Flufenacet	142459-58-3	20.20
Dimetachlone	24096-53-5	20.22
Isocarbophos	24353-61-5	20.25
Thiamethoxam	153719-23-4	20.53
Bromophos	2104-96-3	20.60
Butralin	33629-47-9	20.64
Diphenamid	957-51-7	20.66
Isopropalin	33820-53-0	20.95
Oxychlordane	155681-22-4	21.05
trans-Chlorfenvinphos	18708-86-6	21.07
Heptachlor epoxides (cis-)	1024-57-3	21.11
Terbufos sulfone	56070-16-7	21.17
Pendimethalin	40487-42-1	21.19
Penconazole	66246-88-6	21.22
Heptachlor epoxides (trans-)	28044-83-9	21.28
Captan	133-06-2	21.43
cis-Chlorfenvinphos	18708-87-7	21.47
Isofenphos	25311-71-1	21.57
Quinalphos	13593-03-8	21.62
Triadimenol	55219-65-3	21.64
Phenthoate	2597-03-7	21.66
Folpet	133-07-3	21.67
Methoprene	40596-69-8	21.93
Chlordane-trans	5103-71-9	21.99
Methidathion	950-37-8	22.10
o,p'-DDE	3424-82-6	22.25
Haloxyfop-methyl	69806-40-2	22.35

alpha-Endosulfan	959-98-8	22.43
Disulfoton-sulfone	2497-06-5	22.53
Tetrachlorvinphos	22248-79-9	22.53
Chlordane-cis	5103-74-2	22.56
Mepanipyrim	110235-47-7	22.60
Butachlor	23184-66-9	22.70
Flumetralin	62924-70-3	22.75
Napropamide	15299-99-7	22.96
Fenamiphos	22224-92-6	22.98
Butamifos	36335-67-8	23.00
Hexaconazole	79983-71-4	23.02
Imazalil	35554-44-0	23.17
Prothiofos	34643-46-4	23.19
Isoprothiolane	50512-35-1	23.25
Profenofos	41198-08-7	23.31
Dieldrin	60-57-1	23.39
p,p'-DDE	72-55-9	23.42
Uniconazole-P	83657-17-4	23.44
Pretilachlor	51218-49-6	23.45
Tribufos	78-48-8	23.45
Oxadiazon	19666-30-9	23.67
o,p'-DDD	53-19-0	23.72
Myclobutanil	88671-89-0	23.73
Flamprop-methyl	52756-25-9	23.80
Buprofezin	69327-76-0	23.83
Oxyfluorfen	42874-03-3	23.89
Bupirimate	41483-43-6	24.01
Thifluzamide	130000-40-7	24.05
Kresoxim-methyl	143390-89-0	24.07
Nitrofen	1836-75-5	24.16
Endrin	72-20-8	24.19
Isoxathion	18854-01-8	24.18
Fluazifop-butyl	69806-50-4	24.46
beta-Endosulfan	33213-65-9	24.52
Chlorobenzilate	510-15-6	24.62
Fensulfothion	115-90-2	24.78
Fenthion sulfoxide	3761-41-9	24.79
Aclonifen	74070-46-5	24.94
p,p'-DDD	72-54-8	24.96
Fenthion sulfone	3761-42-0	25.01

o,p'-DDT	789-02-6	25.04
Oxadixyl	77732-09-3	25.11
Ethion	563-12-2	25.20
Chlorthiophos	60238-56-4	25.30
Triazophos	24017-47-8	25.64
Carbophenothion	786-19-6	25.89
Benalaxyl	71626-11-4	25.99
Endosulfan sulfate	1031-07-8	26.08
Carfentrazone-ethyl	128621-72-7	26.10
Propiconazole I	60207-90-1	26.16
Propiconazole II	60207-90-1	26.38
p,p'-DDT	50-29-3	26.26
Hexazinone	51235-04-2	26.67
Tebuconazole	107534-96-3	26.75
Thenylchlor	96491-05-3	26.78
Triphenyl phosphate	115-86-6	27.04
Piperonyl butoxide	51-03-6	27.21
Pyributicarb	88678-67-5	27.72
Benzoylprop-ethyl	22212-55-1	27.74
Iprodione	36734-19-7	27.80
Bromopropylate	18181-80-1	28.10
Carbosulfan	55285-14-8	28.13
EPN	2104-64-5	28.14
Picolinafen	137641-05-5	28.27
Chlorantraniliprole	500008-45-7	28.32
Bifenthrin	82657-04-3	28.33
Methoxychlor	72-43-5	28.38
Fenamidone	161326-34-7	28.63
Anilofos	64249-01-0	28.83
Clomeprop	84496-56-0	28.88
Tetradifon	116-29-0	29.02
Phosalone	2310-17-0	29.39
Leptophos	21609-90-5	29.46
Cyhalofop-butyl	122008-85-9	29.83
Cyhalothrin	91465-08-6	30.22
Fenarimol	60168-88-9	30.32
Pyrazophos	13457-18-6	30.66
Benfuracarb	82560-54-1	30.79
Fenoxaprop-P-ethyl	71283-80-2	31.03
Bitertanol	55179-31-2	31.38

Permethrin-cis	54774-45-7	31.59
Permethrin-trans	51877-74-8	31.86
Boscalid	188425-85-6	33.36
Quizalofop-p-ethyl	100646-51-3	33.54
Quizalofop-ethyl	76578-14-8	33.61
Flucythrinate I	70124-77-5	33.81
Flucythrinate II	70124-77-5	34.19
Fenvalerate	51630-58-1	35.10
Deltamethrin	52918-63-5	36.51
Indoxacarb	144171-61-9	36.51
Dimethomorph(Z)	110488-70-5	37.02
Dimethomorph(E)	110488-70-5	37.57

S2. Sample preparation of d-SPE

A tobacco sample (2 g) was weighted into a 50 mL centrifuge tube, and 10 mL of water was added to it. The tubed was vortexed, following which the solution was allowed to stand for 30 min. After adding 15 mL of an acetonitrile–acetic acid solution ((99/1,v/v)), 6 g of anhydrous magnesium sulfate, 1.5 g of sodium acetate, and a ceramic homogeneous proton, the centrifuge tube was closed, shaken vigorously for 1 min, and centrifuged at 4200 rpm for 5 min. The supernatant (8 mL) was added to a 15 mL plastic centrifuge tube containing 1200 mg magnesium sulfate, 400 mg PSA, 400 mg C18, and 200 mg GCB, following which the tube was vortexed for 1 min. Then, the mixture was centrifuged at 4200 rpm for 5 min, and exactly 2 mL of the supernatant was withdrawn into a 10 mL test tube. The supernatant was blown with nitrogen at 40 °C in a water bath until the supernatant was almost dry. Then, 20 μL of an internal standard solution and 1 mL of ethyl acetate were added for reconstitution. The reconstituted solution was filtered through a 0.22-μm Nylon membrane prior to GC-QTOF/MS.