

SUPPLEMENTARY MATERIAL RELATED TO THE ARTICLE

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Degradation of pesticide residues in fruits and vegetables based on high-performance liquid chromatography/high-resolution mass spectrometry
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Tab. S1. Mass spectrometric information and method validation of 47 pesticides (n = 5).

No.	Pesticide	Formula	CAS. No	Adduct ion	Retention time	Apple		Tomato		Cabbage		Grape	
						Recovery	RSD	Recovery	RSD	Recovery	RSD	Recovery	RSD
						[%]	[%]	[%]	[%]	[%]	[%]	[%]	[%]
1	Ametryn	C ₉ H ₁₇ N ₅ S	834-12-8	228.12774	6.924	78.9	10.8	90.8	6.2	93.6	10.1	95.1	6.4
2	Atrazine	C ₈ H ₁₄ ClN ₅	1912-24-9	216.10105	6.534	83.8	4.2	107.1	4.5	108.4	2.9	94.4	3.5
3	Atrazine-desethyl	C ₆ H ₁₀ ClN ₅	6190-65-4	188.06975	3.743	82.3	13.0	103.3	10.7	111.6	14.4	102.0	5.9
4	Azoxystrobin	C ₂₂ H ₁₇ N ₃ O ₅	131860-33-8	404.1241	11.339	74.1	1.8	90.3	6.9	76.0	8.1	111.2	22.0
5	Benalaxyl	C ₂₀ H ₂₃ NO ₃	71626-11-4	326.17507	14.201	75.9	2.6	86.5	5.7	89.6	2.4	103.1	5.2
6	Benzoylprop-ethyl	C ₁₈ H ₁₇ Cl ₂ NO ₃	22212-55-1	366.06583	15.273	71.3	7.0	97.9	7.6	94.3	18.8	92.6	5.0
7	Bitertanol	C ₂₀ H ₂₃ N ₃ O ₂	55179-31-2	338.1863	12.796	87.4	8.4	90.6	11.2	84.7	5.5	95.3	11.4
8	Bupirimate	C ₁₃ H ₂₄ N ₄ O ₃ S	41483-43-6	317.16419	12.662	77.3	7.8	99.3	6.7	88.4	19.8	95.8	5.9
9	Buprofezin	C ₁₆ H ₂₃ N ₃ OS	69327-76-0	306.16346	17.431	70.8	0.9	102.7	9.6	74.8	25.0	96.4	6.1
10	Chlorpyrifos	C ₉ H ₁₁ Cl ₃ NO ₃ PS	2921-88-2	349.93356	17.773	85.1	9.3	102.8	12.5	87.9	15.8	87.5	9.2
11	Cyflufenamid	C ₂₀ H ₁₇ F ₅ N ₂ O ₂	180409-60-3	413.1283	16.623	80.6	11.0	108.0	14.2	90.1	12.2	94.0	5.0
12	Cyprodinil	C ₁₄ H ₁₅ N ₃	121552-61-2	226.13387	11.999	76.8	3.1	108.5	2.4	84.4	19.3	95.6	7.3
13	Desmetryn	C ₈ H ₁₅ N ₅ S	1014-69-3	214.11209	5.223	82.2	3.4	110.9	10.7	101.4	5.2	95.0	7.0
14	Diethatyl-ethyl	C ₁₆ H ₂₂ ClNO ₃	38727-55-8	312.136	13.904	78.4	8.3	104.9	8.5	85.7	20.3	93.9	6.4
15	Dimethenamid	C ₁₂ H ₁₈ ClNO ₂ S	87674-68-8	276.08195	9.678	91.2	4.2	99.9	9.4	83.6	12.6	91.5	7.2
16	Diphenamid	C ₁₆ H ₁₇ NO	957-51-7	240.13829	8.067	84.5	5.3	95.5	5.4	86.8	14.1	93.6	6.4
17	Esprocarb	C ₁₅ H ₂₃ NOS	85785-20-2	266.1575	17.272	82.8	3.3	117.4	7.9	86.7	3.2	100.7	4.4
18	Fenamidone	C ₁₇ H ₁₇ N ₃ OS	161326-34-7	312.11651	11.051	83.0	3.0	94.7	4.8	83.3	19.5	96.8	5.4
19	Fenothiocarb	C ₁₃ H ₁₉ NO ₂ S	62850-32-2	254.1209	13.000	74.6	5.7	97.0	4.7	80.5	20.0	92.5	5.2
20	Flutriafol	C ₁₆ H ₁₃ F ₂ N ₃ O	76674-21-0	302.10994	6.475	89.0	4.4	107.3	4.9	103.2	5.7	102.6	9.5
21	Fluxapyroxad	C ₁₈ H ₁₂ F ₅ N ₃ O	907204-31-3	382.0973	11.609	79.4	8.8	106.0	7.9	87.5	19.2	91.6	6.5
22	Isoprothiolane	C ₁₂ H ₁₈ O ₄ S ₂	50512-35-1	291.07193	12.390	74.9	2.1	86.6	4.5	75.2	8.5	101.3	5.6
23	Kresoxim-methyl	C ₁₈ H ₁₉ NO ₄	143390-89-0	314.13868	14.363	77.8	4.4	108.9	9.8	79.0	16.0	89.7	5.0
24	Mepanipyrim	C ₁₄ H ₁₃ N ₃	110235-47-7	224.11822	11.728	77.5	3.3	84.5	5.2	82.6	7.7	103.4	5.3
25	Metalaxyl	C ₁₅ H ₂₁ NO ₄	57837-19-1	280.15433	6.872	75.2	12.5	88.4	10.4	95.2	6.0	94.4	8.2
26	Methoprotryne	C ₁₁ H ₂₁ N ₅ OS	841-06-5	272.15396	6.807	78.2	2.8	81.5	5.6	81.0	4.5	103.6	4.8
27	Metolachlor	C ₁₅ H ₂₂ ClNO ₂	51218-45-2	284.14118	12.494	77.3	2.3	100.9	6.2	82.1	9.8	101.9	4.8
28	Orbencarb	C ₁₂ H ₁₆ ClNOS	34622-58-7	258.07139	14.948	75.4	5.3	116.4	7.1	111.0	16.6	102.0	6.2
29	Paclobutrazol	C ₁₅ H ₂₀ ClN ₃ O	76738-62-0	294.13677	8.790	83.8	1.4	116.6	6.3	91.1	9.3	99.8	5.0
30	Penconazole	C ₁₃ H ₁₅ Cl ₂ N ₃	66246-88-6	284.07158	9.391	72.5	12.3	95.1	5.4	84.6	14.0	97.8	11.2
31	Pentanochlor	C ₁₃ H ₁₈ ClNO	2307-68-8	240.11497	13.598	74.7	9.1	100.3	9.3	75.2	20.9	84.5	17.9
32	Picoxystrobin	C ₁₈ H ₁₆ F ₃ NO ₄	117428-22-5	368.11042	14.792	70.1	10.6	98.4	8.5	74.7	24.5	96.6	4.0
33	Pirimicarb	C ₁₁ H ₁₈ N ₄ O ₂	23103-98-2	239.15025	4.561	83.4	6.3	119.4	5.1	111.1	4.7	93.6	7.9
34	Pirimiphos-methyl	C ₁₁ H ₂₀ N ₃ O ₃ PS	29232-93-7	306.10358	15.986	91.2	4.0	104.2	6.7	79.7	4.2	102.8	5.2
35	Propisochlor	C ₁₅ H ₂₂ ClNO ₂	86763-47-5	284.14118	14.429	70.1	6.1	101.2	7.3	78.0	18.2	89.8	5.7
36	Pyributicarb	C ₁₈ H ₂₂ N ₂ O ₂ S	88678-67-5	331.1475	17.878	104.7	2.7	109.3	3.9	74.3	8.7	101.2	5.3
37	Quinalphos	C ₁₂ H ₁₅ N ₂ O ₃ PS	13593-03-8	299.06138	14.130	81.4	4.9	110.4	2.7	75.0	19.2	86.8	8.1
38	Sebuthylazine	C ₉ H ₁₆ ClN ₅	7286-69-3	230.1167	8.106	86.1	6.7	89.1	1.4	92.3	12.5	96.7	4.1
39	Simeconazole	C ₁₄ H ₂₀ FN ₃ OSi	149508-90-7	294.14324	7.586	78.9	6.9	109.1	6.9	93.3	11.3	106.4	6.9
40	Simeton	C ₈ H ₁₅ N ₅ O	673-04-1	198.1344	3.704	78.9	7.6	84.8	9.3	86.5	3.9	93.3	18.4
41	Tebuconazole	C ₁₆ H ₂₂ ClN ₃ O	107534-96-3	308.1524	12.027	81.1	3.2	100.9	5.0	97.0	15.1	93.3	20.7
42	Tebufenpyrad	C ₁₈ H ₂₄ ClN ₃ O	119168-77-3	334.16807	16.766	81.0	3.0	86.0	2.5	113.4	23.3	101.4	8.0
43	Terbuthylazine	C ₉ H ₁₆ ClN ₅	5915-41-3	230.1167	9.040	88.9	4.0	97.3	4.1	87.3	3.6	100.4	4.4
44	Tetraconazole	C ₁₃ H ₁₁ Cl ₂ F ₄ N ₃ O	112281-77-3	372.029	12.079	83.0	3.4	82.9	5.0	87.7	3.7	100.2	6.1
45	Thiazopyr	C ₁₆ H ₁₇ F ₅ N ₂ O ₂ S	117718-60-2	397.0997	15.532	79.8	2.5	99.7	5.5	110.0	13.9	103.8	6.1
46	Triazophos	C ₁₂ H ₁₆ N ₃ O ₃ PS	24017-47-8	314.07228	12.832	79.4	12.5	103.0	9.2	80.6	17.7	93.1	4.3
47	Trifloxystrobin	C ₂₀ H ₁₉ F ₃ N ₂ O ₄	141517-21-7	409.13697	16.750	73.4	13.5	98.9	7.9	93.2	17.8	93.8	4.2

RSD – relative standard deviation.