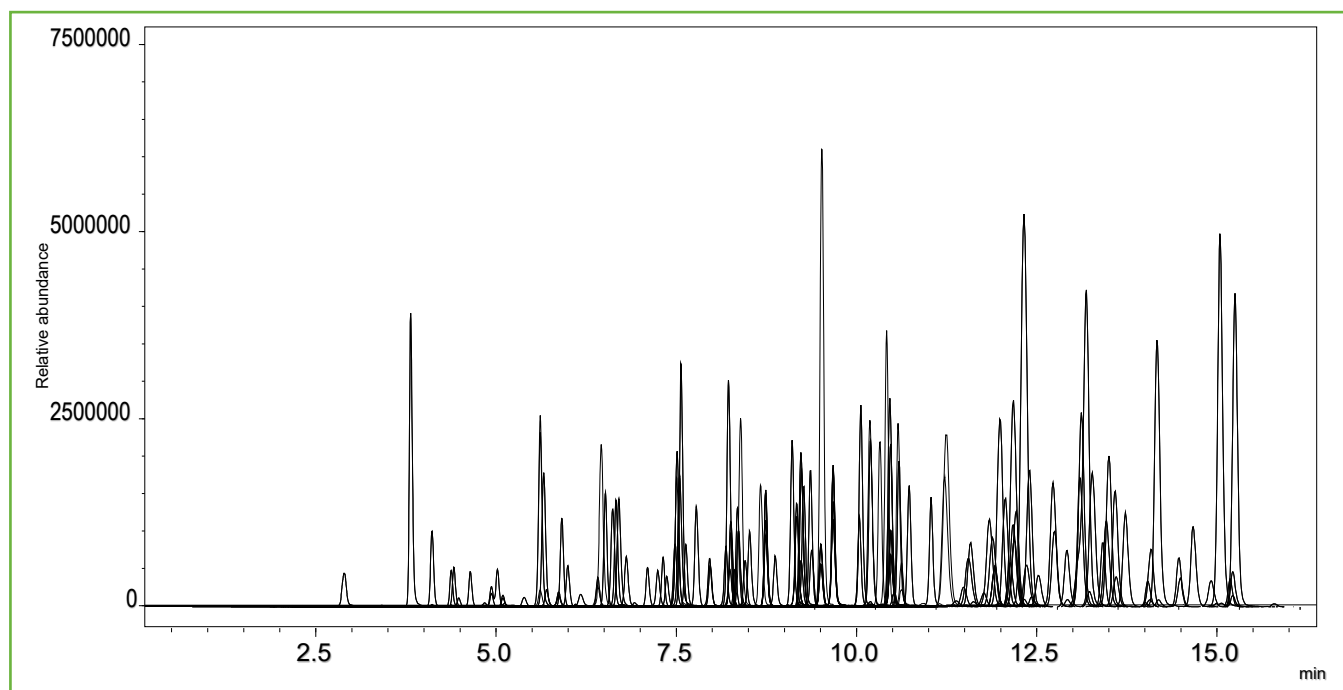




Large Panel Pesticide Screening on HALO® Biphenyl

249-PS



TEST CONDITIONS:

Column: HALO 90 Å Biphenyl, 2.7 μm 2.1 x 100 mm

Part Number: 92812-611

Mobile Phase A: Water/0.1% formic acid, 5 mM ammonium acetate

B: Methanol/0.1% formic acid

Gradient:	Time	%B
	0.0	0
	12	100
	16	100

Flow Rate: 0.4 mL/min

Pressure: 225 bar

Temperature: 30 °C

Detection: +ESI

Injection Volume: 1.0 μL

Sample Solvent: Methanol

LC System: Shimadzu 8040 LCMS

With its combination of hydrophobic, aromatic, and polar selectivities, the HALO® Biphenyl column is ideal for screening 191 pesticides in less than 16 minutes. Both polar and non-polar pesticides are well retained, enabling the HALO® Biphenyl column to be an excellent choice for high throughput screening for environmental applications.



ENVIRONMENTAL



Peak #	Name	Retention Time (min)	m/z transition
1	Cyromazine	2.894	167.0000>85.1000
2	Terbufos sulfone	3.427	321.1000>171.0000
3	Metoxuron	4.135	229.1000>72.0500
4	Propamocarb	4.530	189.0000>102.1000
5	Omethoate	4.840	214.0000>125.1000
6	Monolinuron	4.841	215.1000>126.1000
7	Simetryn	4.841	214.0000>124.0000
8	Butocarboxim sulfoxide	5.117	207.1000>75.1000
9	Butocarboxim	5.118	208.1000>75.1000
10	Aldicarb sulfoxide	5.119	207.1000>89.2000
11	Dinotefuran	5.157	203.2500>129.0500
12	Butoxycarboxim	5.700	223.0000>106.2000
13	Aldoxycarb	5.787	240.2000>86.1000
14	Flonicamid	5.867	230.1000>203.0000
15	Sebuthylazine	5.868	229.9000>174.0500
16	Atrazine-desisopropyl	6.174	173.8000>68.1000
17	Carbendazim	6.408	192.1000>160.1000
18	Pymetrozine	6.459	218.1000>105.1000
19	Oxamyl	6.721	237.1000>72.1000
20	Nitenpyram	6.747	271.0000>56.1500
21	Methomyl	6.807	162.8000>106.0000
22	Oxydemeton-methyl	6.920	247.0000>169.0000
23	Clothianidin	7.243	250.1000>132.0000
24	Demeton-s-methyl sulfone	7.352	262.8000>169.0000
25	Fuberidazole	7.458	185.0000>157.0500
26	Fenuron	7.505	164.9000>72.0500
27	Thiabendazole	7.547	202.1000>175.0000
28	Cyproconazole Isomer	7.708	292.0000>70.0000
29	3-hydroxycarbofuran	7.963	255.1000>163.1000
30	Ethidimuron	8.188	264.9000>114.0000
31	Chloridazon	8.241	222.1000>104.1000
32	Ethirimol	8.363	210.1000>98.0500
33	Dioxacarb	8.392	224.0000>123.1000
34	Methiocarb	8.395	226.1000>169.1000
35	Vamidothion	8.447	288.0000>146.0500
36	Cymoxanil	8.517	199.1000>128.0000
37	Ametryn	8.669	242.1000>122.1000
38	Mesural sulfoxide	8.669	242.1000>122.1000
39	Terbutryn	8.671	242.1000>186.1000
40	Imidacloprid	8.871	256.1000>175.0000
41	Oxycarboxin	9.137	268.1000>175.0000
42	Monuron	9.170	199.1000>72.0500
43	Cycluron	9.171	199.1000>72.0500
44	Methiocarb-sulfone	9.230	258.1000>122.1000
45	Metolcarb	9.267	166.1000>109.0000
46	Thidiazuron	9.378	221.1000>102.1000
47	Diuron	9.675	232.8000>72.1000
48	Fluometuron	9.677	233.1000>72.1000
49	Propoxur	10.059	210.1000>111.0000
50	Fenthion sulfoxide	10.169	295.1000>280.0000
51	Imazamethabenz-methyl	10.186	289.1000>144.0000

Peak #	Name	Retention Time (min)	m/z transition
52	Myclobutanil	10.194	289.0000>70.0000
53	Bendiocarb	10.194	224.1000>109.1000
54	Chlorotoluron	10.325	212.9000>72.0000
55	Terbumeton	10.355	226.1000>170.1000
56	Propargite	10.358	368.3000>231.2000
57	Pyracarbolid	10.415	218.1000>125.1000
58	Thiacloprid	10.462	253.0000>126.0500
59	Forchlorfenuron	10.473	248.1000>129.0000
60	Methabenzthiazuron	10.488	222.1000>165.2000
61	Carbofuran	10.489	222.2000>165.1000
62	Quinoclamine	10.515	208.0000>89.0000
63	Isoprocarb	10.576	194.1000>95.0000
64	Carbaryl	10.589	202.1000>145.1000
65	Metobromuron	10.623	259.0000>148.0500
66	Benoxacor	10.630	260.0000>149.1000
67	Buturon	10.731	237.1000>84.1000
68	Isoproturon	10.747	207.0000>72.1500
69	Sulfentrazone	10.789	387.0000>309.0000
70	Ethiofencarb	10.831	226.0000>107.1000
71	Naptalam	10.875	292.1000>144.1000
72	Thiobencarb	10.894	258.0000>125.0000
73	Tepraloxymid	10.963	342.2000>250.1500
74	Spiroxamine	11.083	298.0000>144.1500
75	Carboxin	11.087	236.0000>143.0500
76	Tebuthiuron	11.090	229.1000>172.4000
77	Fenpropimorph	11.266	304.2000>147.1000
78	Linuron	11.276	249.0000>159.9500
79	Fenobucarb	11.304	208.0000>95.1000
80	Siduron	11.377	233.3000>94.0000
81	Penconazole	11.393	284.1000>70.0000
82	Ethiprole	11.402	396.9500>350.8500
83	Ethoxyquin	11.452	218.0000>174.0500
84	Desmedipham	11.496	318.0000>182.5000
85	1-Dodecylguanidine	11.517	228.1000>71.1000
86	Phenmedipham	11.602	318.1000>168.0000
87	Disulfoton sulfoxide	11.612	291.0000>213.0000
88	Halofenozide	11.636	331.1000>105.0000
89	Azamethiphos	11.636	325.0000>183.0000
90	Promecarb	11.753	208.1000>109.0000
91	Thifensulfuron-methyl	11.798	388.1000>167.1000
92	Diethofencarb	11.802	268.2000>226.1000
93	Tridemorph	11.814	298.1000>130.1000
94	Flurtamone	11.950	334.1000>247.0500
95	Tebufenpyrad	11.950	334.0000>145.0000
96	Fenthion sulfone	11.956	311.0000>109.0000
97	Cyprodinil	11.960	226.0000>93.0000
98	Pencycuron	11.961	329.2000>125.1000
99	Fomesafen	12.044	456.1000>344.0000
100	Iprovalicarb	12.131	321.2000>119.2000
101	Flutolanil	12.154	324.1000>242.0000
102	Chlorantriliprole	12.251	484.1000>452.9000



ENVIRONMENTAL



Peak #	Name	Retention Time (min)	m/z transition
103	Trinexapac-ethyl	12.252	253.2000>69.0000
104	Neburon	12.257	275.1000>88.1000
105	Isoxaflutole	12.308	360.1000>251.1000
106	Benalaxyl	12.316	326.2000>294.1000
107	Chloroxuron	12.407	291.1000>72.1000
108	Dimethametryn	12.409	256.1000>186.0500
109	Fenazaquin	12.439	307.1000>161.0000
110	Terbufos-sulfoxide	12.444	305.1000>186.8000
111	Ethofumesate	12.449	287.1000>258.9000
112	Fenamidon	12.493	312.1000>92.1000
113	Clethodim	12.528	360.0000>164.0500
114	Piperonyl butoxide	12.554	356.2000>177.2000
115	Boscalid	12.568	343.0000>307.0000
116	Methoxyfenozide	12.585	369.2000>149.0000
117	Bioresmethrin	12.619	339.2000>171.0500
118	Hydramethylnon	12.632	495.2000>323.2000
119	Rimsulfuron	12.698	432.1000>182.0000
120	Fenchlorphos oxon	12.699	304.9000>109.0000
121	Tralkoxydim	12.720	330.2000>284.1500
122	Epoxiconazole	12.721	330.1000>121.1000
123	Ipconazole Isomer	12.827	334.2000>70.0000
124	Thiofanox	12.834	219.2000>57.2000
125	Fenbuconazole	12.909	337.0000>124.9000
126	Zoxamide	12.910	336.1000>187.0000
127	Benthiazole	12.922	239.0000>179.9500
128	Isoxaben	13.019	333.2000>165.0000
129	Metconazole	13.032	320.2000>70.0500
130	Triflumuron	13.057	359.1000>156.0000
131	Mandipropamid	13.071	412.2000>328.1500
132	Isoprothiolane	13.084	291.0000>230.9500
133	Acibenzolar-s-methyl	13.166	210.9000>136.0000
134	Cyflufenamid	13.247	413.2000>295.1000
135	Dimethomorph	13.266	388.2000>301.1000
136	Flutriafol	13.278	302.1000>70.1000
137	Fenoxycarb	13.284	302.2000>116.0000
138	Spirotetramat	13.301	374.3000>302.1500
139	Novaluron	13.308	491.1000>471.1000
140	Fluquinconazole	13.393	376.1000>349.0500
141	Spinosad (Spinosyn A)	13.430	732.5000>142.2000
142	Bensulfuron-methyl	13.439	411.2000>149.1000
143	Cyazofamid	13.485	325.1000>108.0000
144	Carfentrazone-ethyl	13.515	412.1000>346.0000
145	Pinoxaden	13.527	401.2000>317.2000
146	Picoxystrobin	13.570	368.1000>145.0000
147	Pyraflufen-ethyl	13.610	413.1000>339.0000
148	Phoxim	13.632	299.0000>77.1000
149	Fenothiocarb	13.634	254.1000>72.1000

Peak #	Name	Retention Time (min)	m/z transition
150	Mefenacet	13.636	298.9000>148.0500
151	Triflusalufuron-methyl	13.659	493.2000>264.1000
152	Azoxystrobin	13.724	404.2000>372.1000
153	Hexaflumuron	13.726	462.8000>158.1000
154	Chlorimuron-ethyl	13.746	415.1000>186.0000
155	Haloxypop-methyl	13.769	376.0500>316.0000
156	Lufenuron	13.782	509.0000>339.0000
157	Metaflumizone	13.788	507.2000>178.0000
158	Kresoxim-methyl	13.844	313.9500>267.3000
159	Anilofos	13.963	368.2000>125.0000
160	Tetraconazole	13.964	372.1000>159.0000
161	Sethoxydim	14.062	328.1000>296.3000
162	Famoxadone	14.078	392.0000>331.1000
163	Teflubenzuron	14.082	381.1000>141.2000
164	Clofentezine	14.122	303.0000>138.0000
165	Haloxypop-etotyl	14.186	434.0500>315.9000
166	Trifloxystrobin	14.197	409.1000>186.1000
167	Pretilachlor	14.237	312.0000>252.1000
168	Diflubenzuron	14.265	328.0000>141.0000
169	Diclobutrazol	14.266	328.2000>70.2000
170	Fluoxastrobin	14.287	459.1000>427.1000
171	Flufenoxuron	14.374	489.1000>158.1000
172	Metrafenone	14.403	409.1000>209.0500
173	Piperophos	14.425	354.1000>170.9000
174	Fenoxaprop-ethyl	14.475	362.1000>288.1000
175	Pyraclostrobin	14.483	390.1000>194.1000
176	Benzoximate	14.560	364.0000>199.0000
177	Diniconazole	14.633	326.2000>70.2000
178	Isocarbofos	14.721	307.0000>121.1000
179	Spiromesifen	14.724	371.3000>273.2000
180	Chlorfluazuron	14.744	540.1000>383.0000
181	Chlorthiophos	14.761	360.7500>304.9000
182	Furathiocarb	14.772	383.2000>195.1000
183	Pyriproxyfen	14.821	322.0000>96.0000
184	Chinomethionate	14.833	235.0000>207.0500
185	Spirodiclofen	15.001	411.2000>71.1000
186	Propaquizafop	15.117	444.2000>100.1000
187	Avermectin B1a.	15.265	890.5000>567.5000
188	Rotenone	15.267	395.2000>213.1000
189	Fenpyroximate	15.339	422.3000>366.2000
190	Cyphenothrin	15.351	376.2000>181.0000
191	Phenothrin	15.423	351.2000>183.0000

