Application Report 292

LC-MS Analysis of Imidacloprid, Thiamethoxam and Metalaxyl Pesticides on Ascentis™ C18

Three pesticides, imidacloprid, thiamethoxam and metalaxyl are separated on Ascentis C18 and detected by mass spectrometry.

Key Words
- LC-MS, Ascentis C18, 34674, thiamethoxam, imidacloprid, and metalaxyl, 581300-U, pesticides, 105827-78-9, 37894, 57837-19-1, 153719-23-4, 34967

Conditions
- column: Ascentis C18, 5 cm x 2.1 mm I.D., 3 µm particles (581300-U)
- mobile phase A: 0.1% ammonium acetate, pH 6.3, unadjusted
- mobile phase B: acetonitrile
- flow rate: 0.2 mL/min.
- temp.: 35 °C
- det.: MS, (+) ESI, Selected Ion Recording Mode
- injection: 5 µL
- sample: 1 µg/mL each in 90:10 water:acetonitrile
- gradient:

<table>
<thead>
<tr>
<th>Min</th>
<th>%A</th>
<th>%B</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>90</td>
<td>10</td>
</tr>
<tr>
<td>10</td>
<td>20</td>
<td>80</td>
</tr>
</tbody>
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Peak IDs
1. Thiamethoxam (M+H)+= 292.01
2. Imidacloprid (M+H)+=256.05
3. Metalaxyl (M+H)+=280.14

Structures
- Thiamethoxam - G003128
- Imidacloprid - G003127
- Metalaxyl - G003129

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