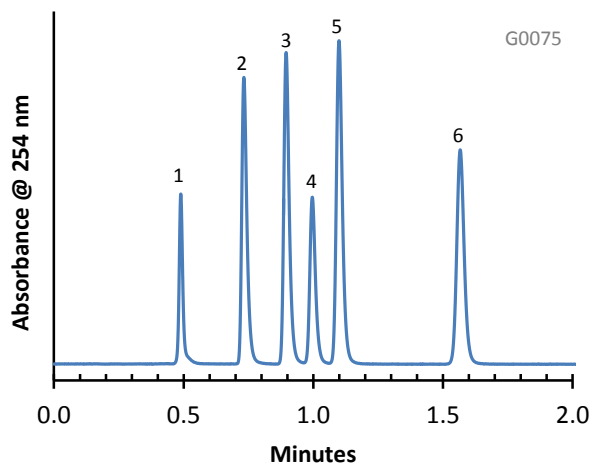


Separation of Neonicotinoids on HALO 2.7 µm C18



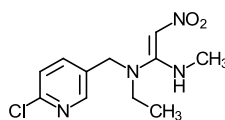
PEAK IDENTITIES:

1. Nitenpyram
2. Thiamethoxam
3. Clothianidin
4. Imidacloprid
5. Acetamiprid
6. Thiocloprid

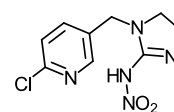
TEST CONDITIONS:

Column: 3.0 x 100 mm, HALO C18, 2.7 µm
 Part Number: 92813-602
 Mobile Phase: 70/30: A/B
 A= 0.1% Formic acid in water
 B= Acetonitrile
 Flow Rate: 0.8 mL/min.
 Pressure: 252 Bar
 Temperature: 35°C
 Detection: UV 254 nm, VWD
 Injection Volume: 2.0 µL
 Sample Solvent: 50/50: Water/acetonitrile
 Response Time: 0.02 sec.
 Flow Cell: 2.5 µL semi-micro
 LC System: Shimadzu Prominence UFLC XR
 ECV: ~14 µL

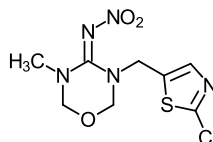
STRUCTURES:



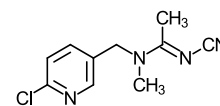
Nitenpyram



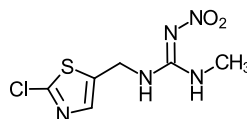
Imidacloprid



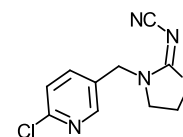
Thiamethoxam



Acetamiprid



Clothianidin



Thiocloprid

Neonicotinoids are systemic insect neurotoxins that have recently been in the news, since this class of pesticides may have negative effects on bees. This application note shows a rapid separation of six neonicotinoids using a Fused-Core, 2.7 µm, HALO C18 column. This superficially porous packing allows high resolution at moderate back pressures.