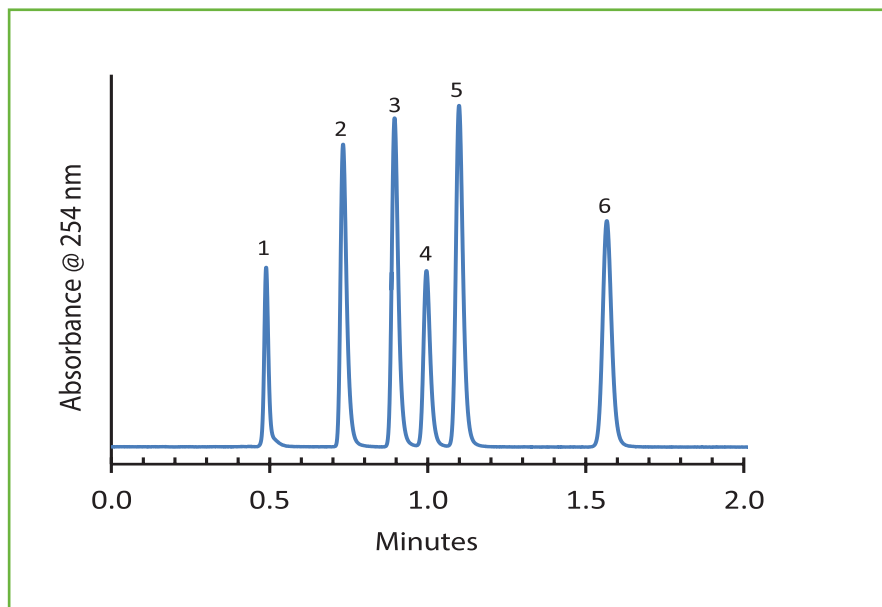




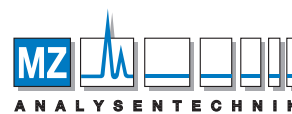
Separation of Neonicotinoids on HALO® C18, 2.7 µm

Application Note 92-PS



PEAK IDENTITIES:

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



AUTHORIZED DISTRIBUTOR

MZ-Analysentechnik GmbH
Barcelona-Allee 17 • D-55129 Mainz
Tel +49 6131 880 96-0
Fax +49 6131 880 96-20
e-mail: info@mz-at.de
www.mz-at.de

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.

TEST CONDITIONS:

Column: HALO 90 Å C18, 2.7 µm,
3.0 x 100 mm

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

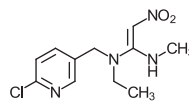
Response Time: 0.02 sec

Flow Cell: 2.5 µL semi-micro

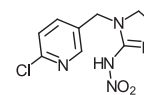
LC System: Shimadzu Prominence UFLC XR

Extra Column Volume: ~14 µL

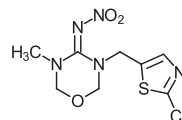
STRUCTURES:



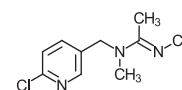
Nitenpyram



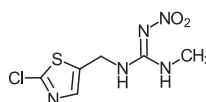
Imidacloprid



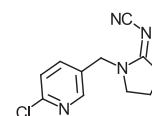
Thiamethoxam



Acetamiprid



Clothianidin



Thiachloprid



216

HALO® and Fused-Core® are registered trademarks of Advanced Materials Technology

halocolumns.com