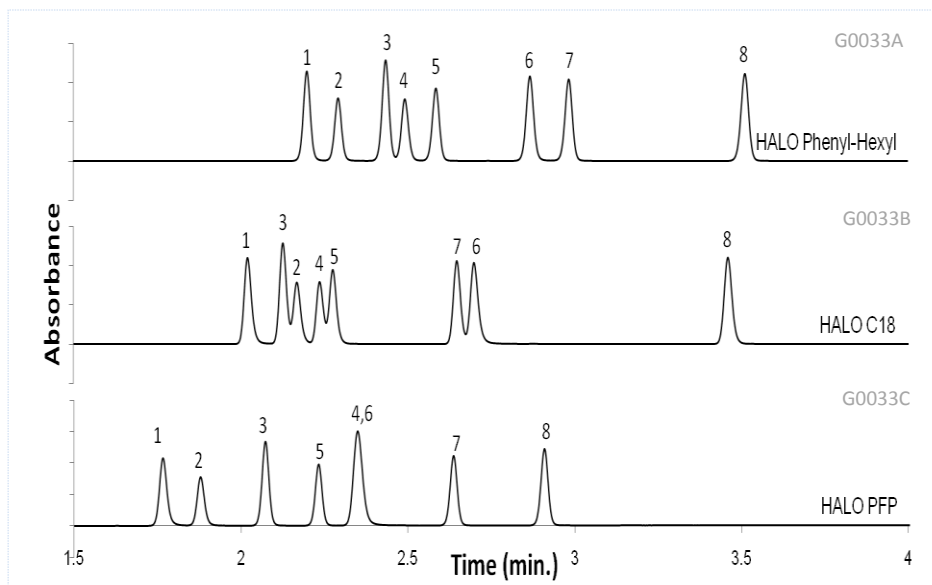


Separation of Benzodiazepines on HALO Phenyl-Hexyl, C18, and PFP Phases



PEAK IDENTITIES:

1. Oxazepam
2. Lorazepam
3. Nitrazepam
4. Alprazolam
5. Clonazepam
6. Temazepam
7. Flunitrazepam
8. Diazepam

TEST CONDITIONS:

Columns: 4.6 x 50 mm, HALO Phenyl-Hexyl, C18, and PFP

Part Numbers: 92814-406, 92814-402, and 92814-409, respectively

Mobile Phase:

A= 25 mM Ammonium acetate in water (pH=5.8 not adjusted), B= Acetonitrile

Gradient from 34-63% B in 3.5 minutes

Flow Rate: 1.5 mL/min.

Pressure: 200 Bar

Temperature: 35°C

Detection: UV 254 nm, VWD

Injection Volume: 1.0 µL

Standard diluted with Acetonitrile and buffer

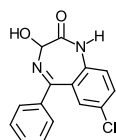
Response Time: <0.12 sec.

Flow Cell: 5 µL semi-micro

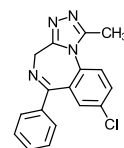
LC System: Agilent 1100

Gradient dwell volume= 0.88 mL

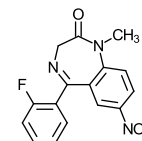
STRUCTURES:



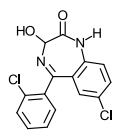
Oxazepam



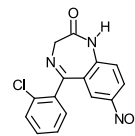
Alprazolam



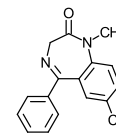
Flunitrazepam



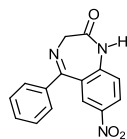
Lorazepam



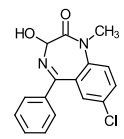
Clonazepam



Diazepam



Nitrazepam



Temazepam

These separations of benzodiazepines on three different HALO Fused-Core HPLC stationary phases show the utility of having a variety of phases to optimize selectivity and/or to shorten analysis time.