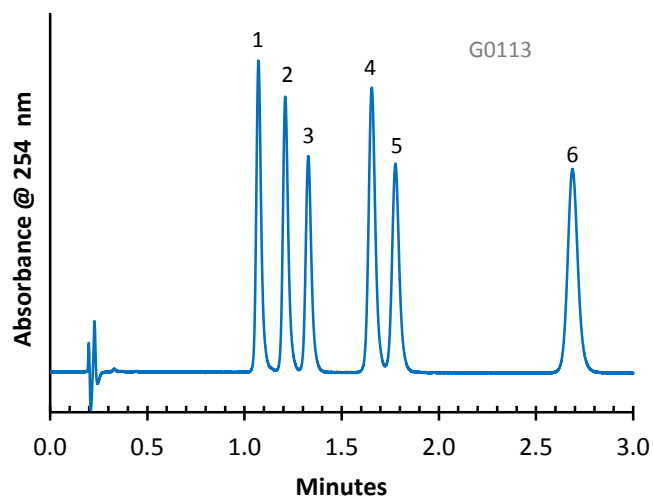


## Benzodiazepines Separation on HALO 2 Phenyl-Hexyl



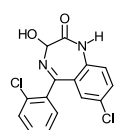
### PEAK IDENTITIES:

1. Lorazepam
2. Alprazolam
3. Clonazepam
4. Temazepam
5. Flunitrazepam
6. Diazepam

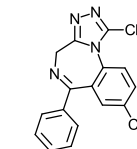
### TEST CONDITIONS:

Columns: 2.1 x 50 mm, HALO 2 Phenyl-Hexyl  
 Part Number: 91812-406  
 Mobile Phase: 62.5/37.5-A/B  
 A= Water with 0.1% formic acid/  
 10 mM ammonium formate, pH 3.3  
 B= 80/20 Acetonitrile/Water with 0.1%  
 formic acid/10 mM ammonium formate  
 Flow Rate: 0.55 mL/min.  
 Pressure: 311 bar  
 Temperature: 35 °C  
 Detection: UV 254 nm, PDA  
 Injection Volume: 0.5 µL  
 Sample Solvent: 30/70-water/acetonitrile  
 Data Rate: 80 Hz  
 Response Time: 0.02 sec.  
 Flow Cell: 2 µL micro cell  
 LC System: Agilent 1200 SL

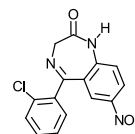
### STRUCTURES:



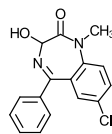
Lorazepam



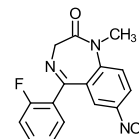
Alprazolam



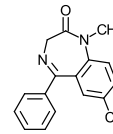
Clonazepam



Temazepam



Flunitrazepam



Diazepam

These six benzodiazepines are baseline resolved on a HALO 2 Phenyl-Hexyl column. The  $\pi$ - $\pi$  interactions between the Phenyl-Hexyl phase and these anti-anxiety drugs help to enhance the separation.