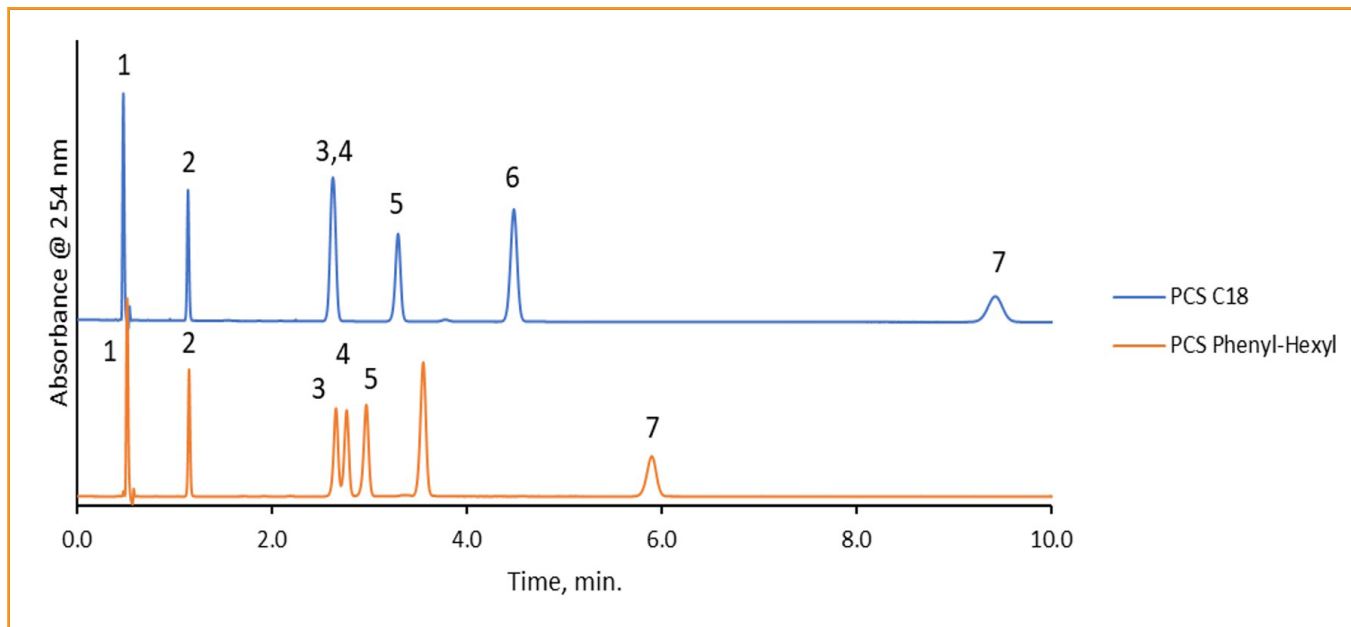




Separation of Benzodiazepines and Neutral Molecules Using HALO® PCS

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TEST CONDITIONS:

Column: HALO 90 Å PCS C18, 2.7 μ m, 2.1 x 100 mm
 Part Number: 92812-617
 Column: HALO 90 Å PCS Phenyl-Hexyl, 2.7 μ m, 2.1 x 100 mm
 Part Number: 92812-618
 Mobile Phase A: Water, 0.1% Formic Acid
 Mobile Phase B: Acetonitrile, 0.1% Formic Acid
 Isocratic: 36 %B
 Flow Rate: 0.4 mL/min.
 Back Pressure: 254 bar
 Temperature: 30 °C
 Injection: 0.5 μ L
 Sample Solvent: 70/30 Water/ACN
 Wavelength: PDA, 280 nm
 Flow Cell: 1 μ L
 Data Rate: 100 Hz
 Response Time: 0.05 sec.
 LC System: Shimadzu Nexera X2

PEAK IDENTITIES:

1. Uracil
2. Phenol
3. Oxazepam
4. Flunitrazepam
5. Diazepam
6. 1-Cl-4-Nitrobenzene
7. Naphthalene

A separation of benzodiazepines and neutral analytes are separated on the HALO® PCS C18 and Phenyl-Hexyl stationary phases. The positively charged surface is ideal for basic analytes while using low ionic strength mobile phases such as formic acid. Due to the pi-pi interactions, the HALO® PCS Phenyl-Hexyl phase provides separation advantages compared to the coelution on the C18 which mostly relies on hydrophobic interactions.