

Caffeine and Related Compounds using HILIC Mode

ACE[®]
Ultra-inert
UHPLC & HPLC Columns

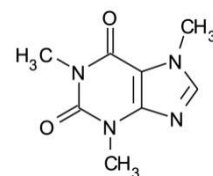
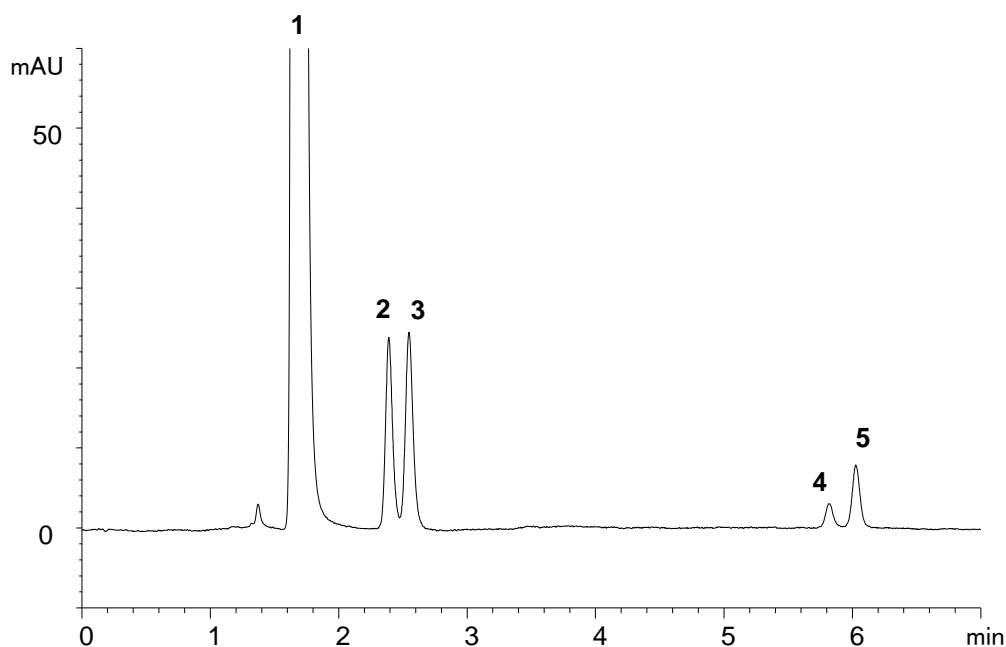
Application #AN4540

Conditions

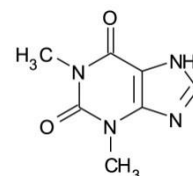
Column: ACE 5 HILIC-N
Dimensions: 150 x 4.6 mm
Part Number: HILN-5-1546U
Mobile Phase: A: 10 mM ammonium formate pH 3.0 in MeCN/H₂O (96:4 v/v)
B: 10 mM ammonium formate pH 3.0 in MeCN/H₂O (50:50 v/v)

Time (mins)	%B
0	0
15	100

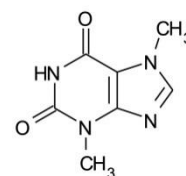
Flow Rate: 1.5 mL/min
Injection: 2 µL
Temperature: 15 °C
Detection: UV, 275 nm
Sample: Caffeine (25 mg/mL) with related substances theophylline, theobromine, xanthine and hypoxanthine at 0.5% w/w, dissolved in MeCN/H₂O (90:10 v/v).



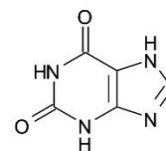
1. Caffeine



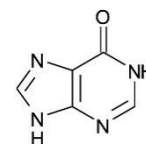
2. Theophylline



3. Theobromine



4. Xanthine



5. Hypoxanthine