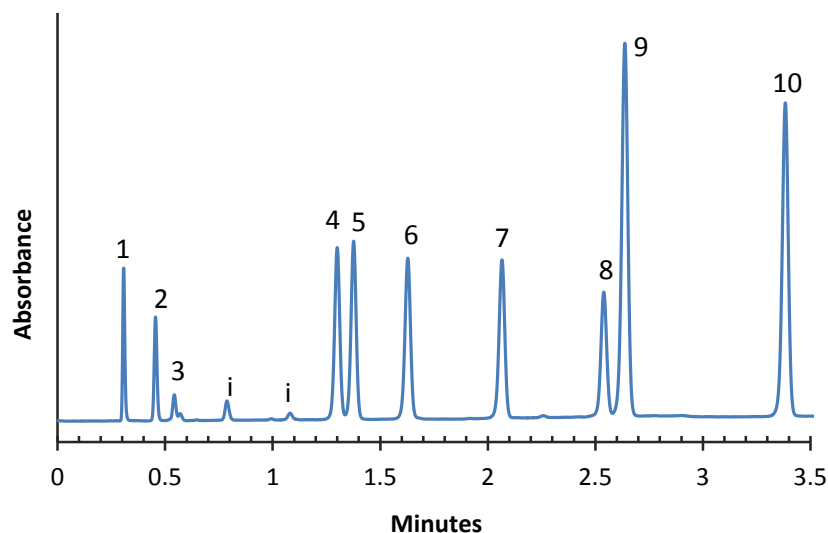


Application Note: 016-NS

Gradient Separation of NSAIDs on HALO RP-Amide



PEAK IDENTITIES:

1. Acetaminophen
 2. Aspirin
 3. Salicylic acid
 4. Tolmetin
 5. Ketoprofen
 6. Naproxen
 7. Fenoprofen
 8. Ibuprofen
 9. Diclofenac
 10. Mefenamic acid
- i=impurity

TEST CONDITIONS:

Column: 4.6 x 50 mm, HALO RP-Amide, 2.7 µm

Part Number: 92814-407

Mobile Phase: 50/50-- A/B (start)

A= 0.02 M sodium phosphate buffer, pH=2.5

B= methanol

Gradient:

0.0 min 50%B

0.1 min 50%B

0.5 min 55%B

3.5 min 80%B

4.0 min 80%B

Flow Rate: 2.0 mL/min.

Pressure: 289 Bar

Temperature: 35°C

Detection: UV 254 nm, VWD

Injection Volume: 1.0 µL

Sample Solvent: mobile phase

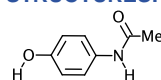
Response Time: 0.02 sec.

Flow Cell: 2.5 µL semi-micro

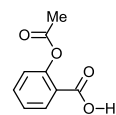
LC System: Shimadzu Prominence UFLC XR

Extra column volume: ~14 µL

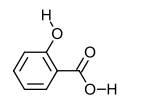
STRUCTURES:



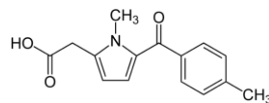
Acetaminophen



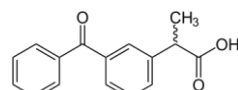
Aspirin



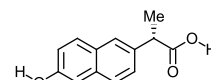
Salicylic acid



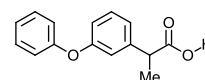
Tolmetin



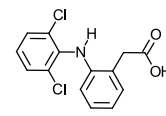
Ketoprofen



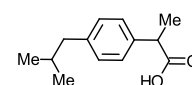
Naproxen



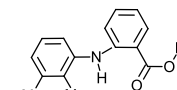
Fenoprofen



Diclofenac



Ibuprofen



Mefenamic acid

Ten non-steroidal anti-inflammatory drugs (NSAIDs) can be separated in under 3.5 minutes using a short HALO RP-Amide 2.7 µm packed column.