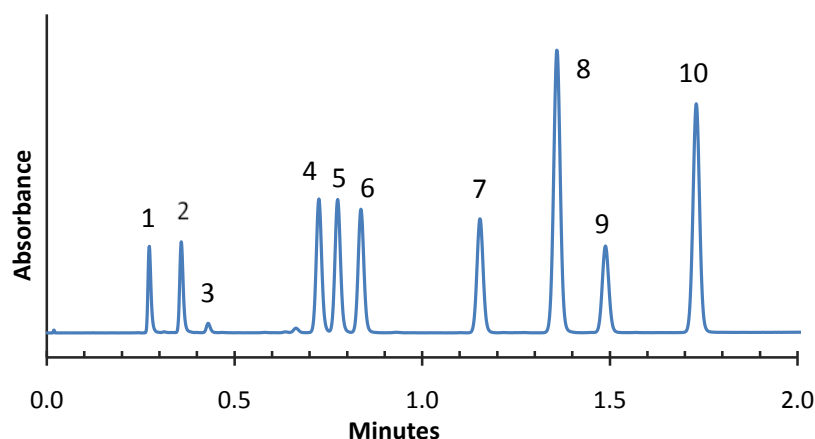


Application Note: 14-NS

## Gradient Separation of NSAIDs on HALO C8



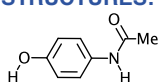
### PEAK IDENTITIES:

1. Acetaminophen
2. Aspirin
3. Salicylic acid
4. Tolmetin
5. Ketoprofen
6. Naproxen
7. Fenoprofen
8. Diclofenac
9. Ibuprofen
10. Mefanamic acid

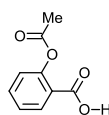
### TEST CONDITIONS:

Column: 4.6 x 50 mm, HALO C8  
 Part Number: 92814-408  
 Mobile Phase: 38/62-- A/B (start)  
 A= 0.02 M sodium phosphate buffer, pH=2.5  
 B= methanol  
 Gradient:  
 0.0 min 62%B  
 0.1 min 62%B  
 2.0 min 85%B  
 Flow Rate: 2.0 mL/min.  
 Pressure: 286 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

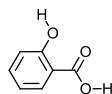
### STRUCTURES:



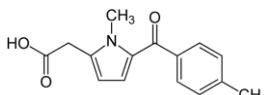
Acetaminophen



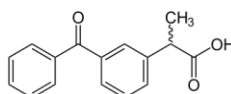
Aspirin



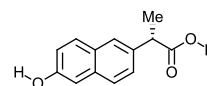
Salicylic acid



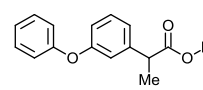
Tolmetin



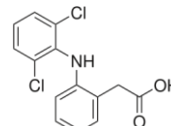
Ketoprofen



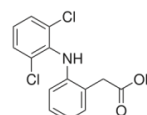
Naproxen



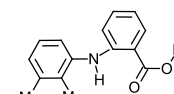
Fenoprofen



Diclofenac



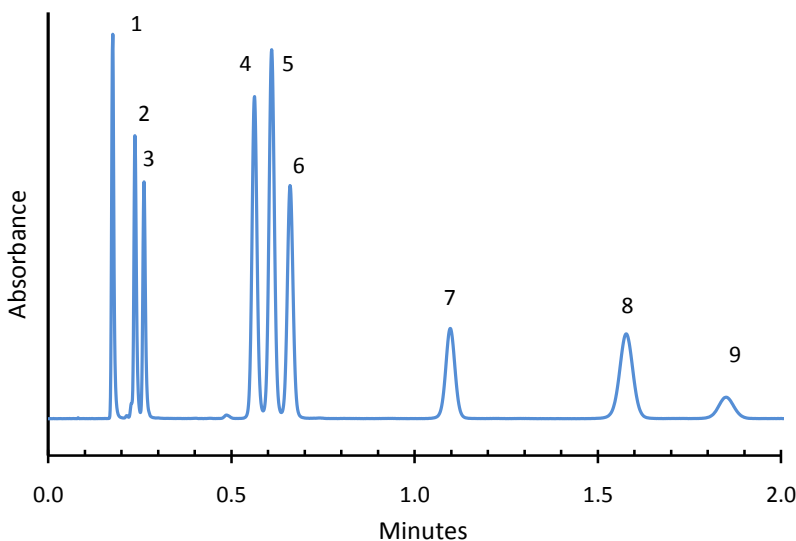
Ibuprofen



Mefanamic acid

Application Note: 13-NS

## Isocratic Separation of NSAIDs on HALO C18



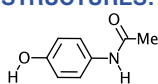
### PEAK IDENTITIES:

1. Acetaminophen
2. Aspirin
3. Salicylic acid
4. Tolmetin
5. Ketoprofen
6. Naproxen
7. Fenopropfen
8. Diclofenac
9. Ibuprofen

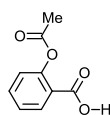
### TEST CONDITIONS:

Column: 4.6 x 50 mm, HALO C18  
 Part Number: 92814-402  
 Mobile Phase: 43/57 A/B  
 A= 0.02 M sodium phosphate buffer, pH=2.5  
 B=(methanol/ACN)-50/50  
 Flow Rate: 3.0 mL/min.  
 Pressure: 338 Bar  
 Temperature: 35°C  
 Detection: UV 254 nm, VWD  
 Injection Volume: 1.0 µL  
 Sample Solvent: methanol/ water-50/50  
 Response Time: 0.02 sec.  
 Flow Cell: 2.5 µL semi-micro  
 LC System: Shimadzu Prominence UFLC XR  
 Extra column volume: ~14 µL

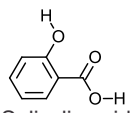
### STRUCTURES:



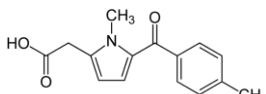
Acetaminophen



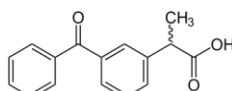
Aspirin



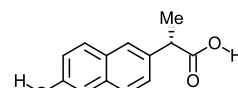
Salicylic acid



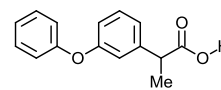
Tolmetin



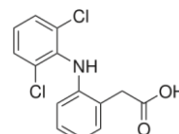
Ketoprofen



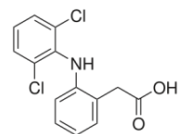
Naproxen



Fenopropfen



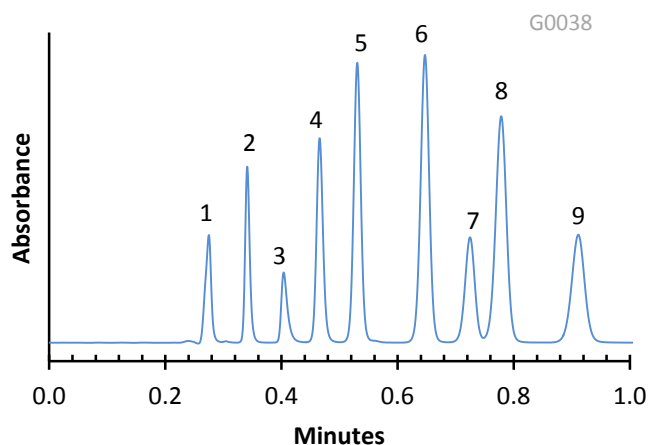
Diclofenac



Ibuprofen

Application Note: 56-NS

## Isocratic Separation of NSAIDs on HALO ES-CN Phase



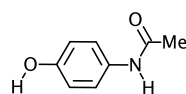
### PEAK IDENTITIES:

1. Acetaminophen
2. Aspirin
3. Salicylic acid
4. Tolmetin
5. Naproxen
6. Fenoprofen
7. Ibuprofen
8. Diclofenac
9. Mefenamic acid

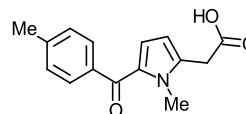
### TEST CONDITIONS:

Column: 4.6 x 50 mm, HALO ES-CN  
 Part Number: 92814-404  
 Mobile Phase: 50/50-A/B  
 A= 0.02 M potassium phosphate buffer, pH=2.5  
 B=Acetonitrile  
 Flow Rate: 2.0 mL/min.  
 Pressure: 165 Bar  
 Temperature: 35 °C  
 Detection: UV 230 nm, VWD  
 Injection Volume: 0.5 µL  
 Sample Solvent: Water/methanol  
 Response Time: 0.02 sec.  
 Flow Cell: 2.5 µL semi-micro  
 LC System: Shimadzu Prominence UFLC XR  
 Extra column volume: ~14 µL

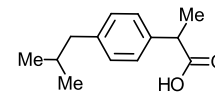
### STRUCTURES:



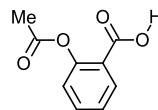
Acetaminophen



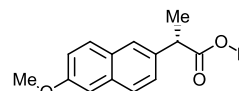
Tolmetin



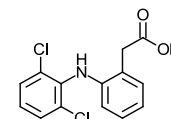
Ibuprofen



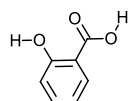
Aspirin



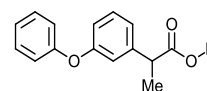
Naproxen



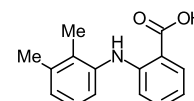
Diclofenac



Salicylic acid



Fenoprofen

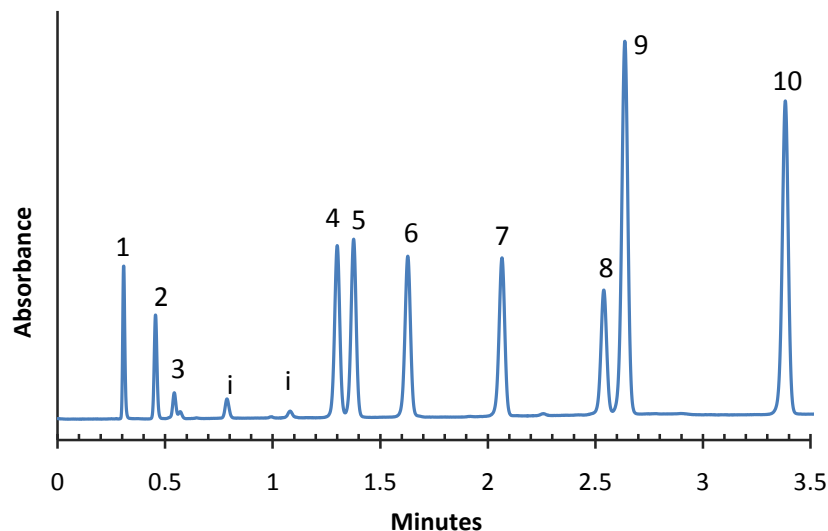


Mefenamic acid

This separation illustrates the separating power of HALO Fused-Core stationary phases. Nine NSAID drugs are separated in under one minute on a 50 mm HALO ES-CN column.

Application Note: 16-NS

## Gradient Separation of NSAIDs on HALO RP-Amide



### PEAK IDENTITIES:

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

### TEST CONDITIONS:

Column: 4.6 x 50 mm, HALO RP-Amide

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

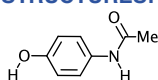
Response Time: 0.02 sec.

Flow Cell: 2.5 µL semi-micro

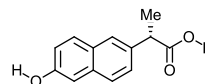
LC System: Shimadzu Prominence UFLC XR

Extra column volume: ~14 µL

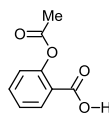
### STRUCTURES:



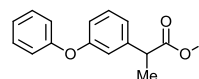
Acetaminophen



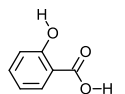
Naproxen



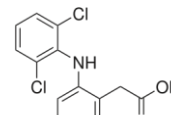
Aspirin



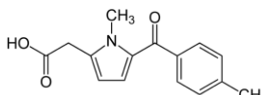
Fenoprofen



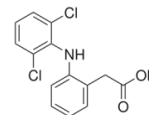
Salicylic acid



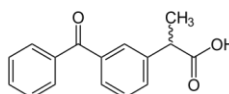
Diclofenac



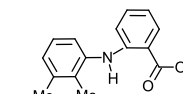
Tolmetin



Ibuprofen



Ketoprofen



Mefanamic acid