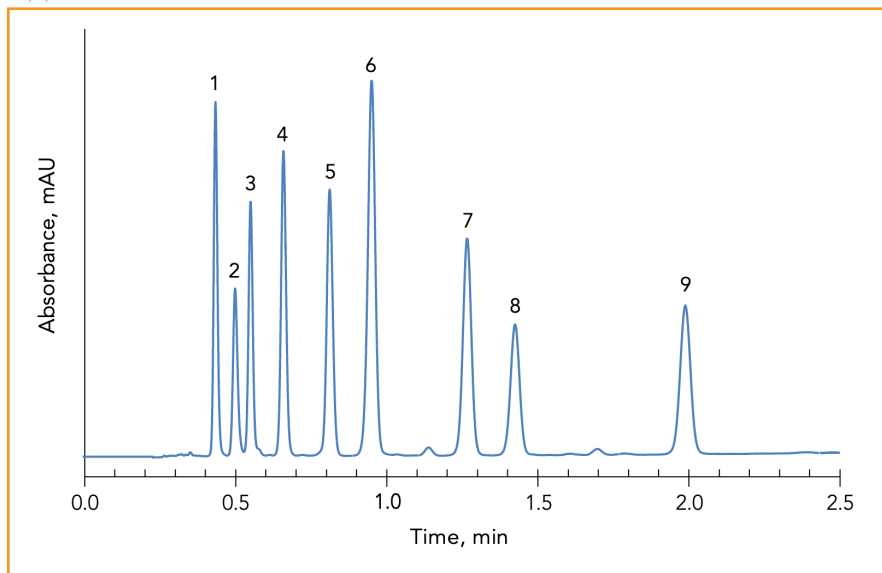




### Separation of Cephalosporins on HALO® ES-CN

Application Note 69-AB



#### PEAK IDENTITIES:

1. Cefadroxil
2. Ceftazidime
3. Cefaclor
4. Cephalexin
5. Cephadrine
6. Cefotaxime
7. Cefoxitin
8. Cefazolin
9. Cephalothin

Cephalosporins are a class of  $\alpha$ -lactam antibiotics that are used to treat staphylococcus and streptococcus infections. These nine cephalosporins can be separated in two minutes on the efficient HALO® ES-CN bonded phase column.

#### TEST CONDITIONS:

**Column:** HALO 90 Å ES-CN, 2.7  $\mu$ m,  
4.6 x 50 mm

**Part Number:** 92814-404

#### Mobile Phase:

A: 0.02 M phosphate buffer, pH 2.7

B: Methanol

**Gradient:** 20% B to 40% B in 2.5 min

**Flow Rate:** 2.0 mL/min

**Initial Pressure:** 225 bar

**Temperature:** 40 °C

**Detection:** UV 254 nm, VWD

**Injection Volume:** 1.0  $\mu$ L

**Sample Solvent:** 70/30 water/methanol

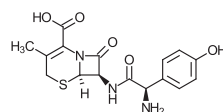
**Response Time:** 0.02 sec

**Flow Cell:** 2.5  $\mu$ L semi-micro

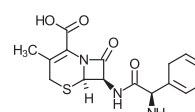
**LC System:** Shimadzu Prominence UFLC XR

**Extra column volume:** ~14  $\mu$ L

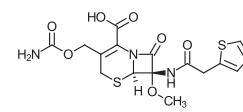
#### STRUCTURES:



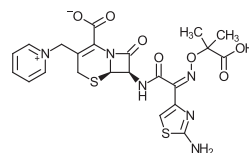
Cefadroxil



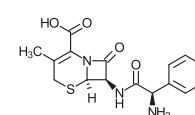
Cephalexin



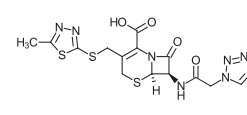
Cefoxitin



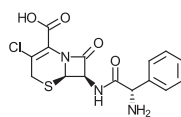
Ceftazidime



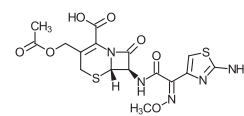
Cephadrine



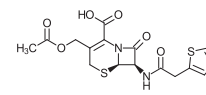
Cefazolin



Cefaclor



Cefotaxime



Cephalothin

