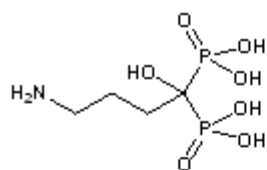


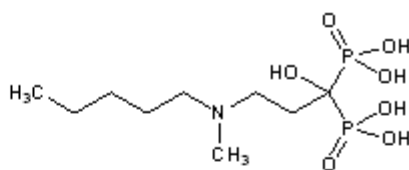
HPLC Separation of Alendronic, Ibandronic, Etidronic Acids

<https://sielc.com/Application-HPLC-Separation-of-Alendronic-Ibandronic-Etidronic-Acids>

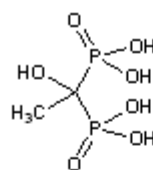
Chromatogram



1



2

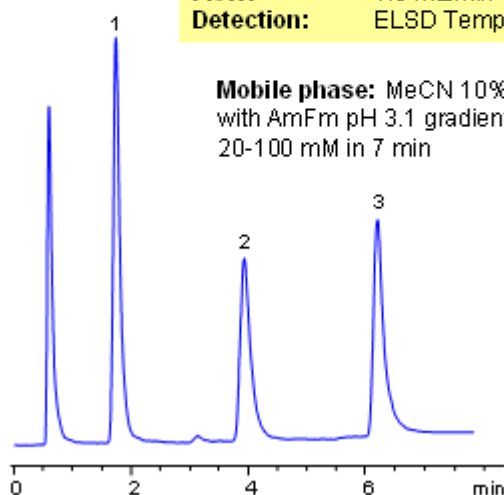


3

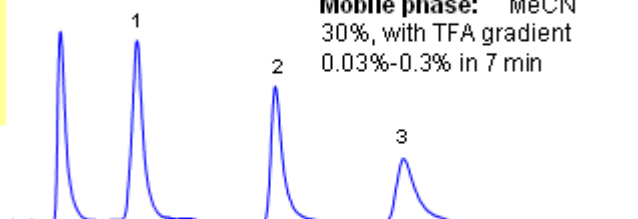
1. Alendronic acid
2. Ibandronic acid
3. Etidronic acid

Column: Primesep SB
Column size: 50 x 4.6 mm
Flow: 1.0 mL/min
Detection: ELSD Temperature 80°C

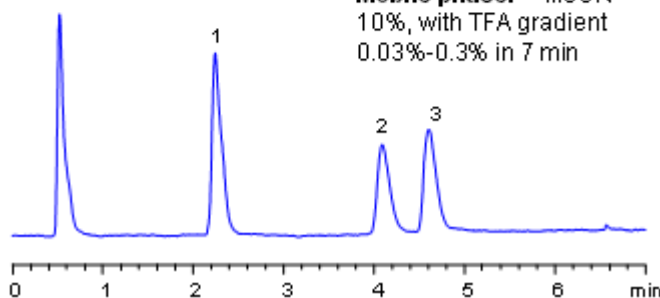
Mobile phase: MeCN 10%
with AmFm pH 3.1 gradient
20-100 mM in 7 min



Mobile phase: MeCN
30%, with TFA gradient
0.03%-0.3% in 7 min



Mobile phase: MeCN
10%, with TFA gradient
0.03%-0.3% in 7 min



Description

Dronic acids are bisphosphonates that differ in their alkyl chains. Alendronate (Fosamax) marketed alone is used for osteoporosis and other bone diseases. It is also combined with Vitamin C (Fosavance). A short, 50 mm Primesep SB column separates alendronic, ibandronic, and etidronic acids. The HPLC separation uses a mobile phase of water, acetonitrile (MeCN, ACN), trifluoroacetic acid (TFA) or ammonium formate and evaporative light scattering detection (ELSD) at 80°C.