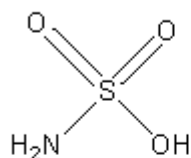


HPLC Retention of Sulfamic Acid on Primesep SB Mixed-Mode Column

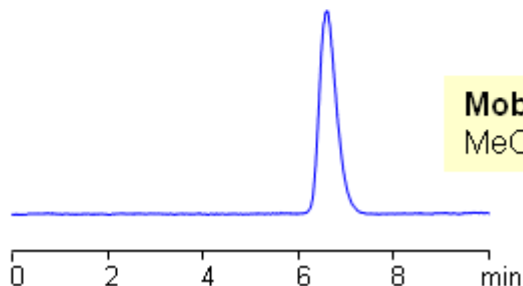
<https://sielc.com/Application-HPLC-Retention-of-Sulfamic-Acid-on-Primesep-SB-Mixed-Mode-Column>

Chromatogram



Column: Primesep SB
Size: 3.2 x 25 mm
Flow: 0.4 mL/min
Detection: ELSD, 40°C

Mobile phase:
MeCN -10%, AmFm pH 3.5 -5 mM



Mobile phase:
MeCN -10%, Formic acid -0.3%

Description

Sulfamic acid is inorganic acid which is used in various synthesis and compositions. It is used as precursor in synthesis of artificial sweeteners. Sulfamic acid (amidosulfonic acid, amidosulfuric acid, aminosulfonic acid, and sulfamidic acid) is very hydrophilic in nature and does not retain on reversed-phase columns. Acidic nature of this acid allows to retain this compound by mixed-mode mechanism. In current method sulfamic acid is retained by anion-exchange mechanism on Primesep SB mixed-mode anion-exchange column. Method employs acetonitrile and ammonium formate or formic acid. Sulfamic acid has no UV activity and needs to be detected by LC/MS, ELSD or Corona CAD. Retention time of sulfamic acid can be adjusted by the amount of buffer/acid in the mobile phase. This method can be used for analysis of organic and inorganic acids in different sample matrices.