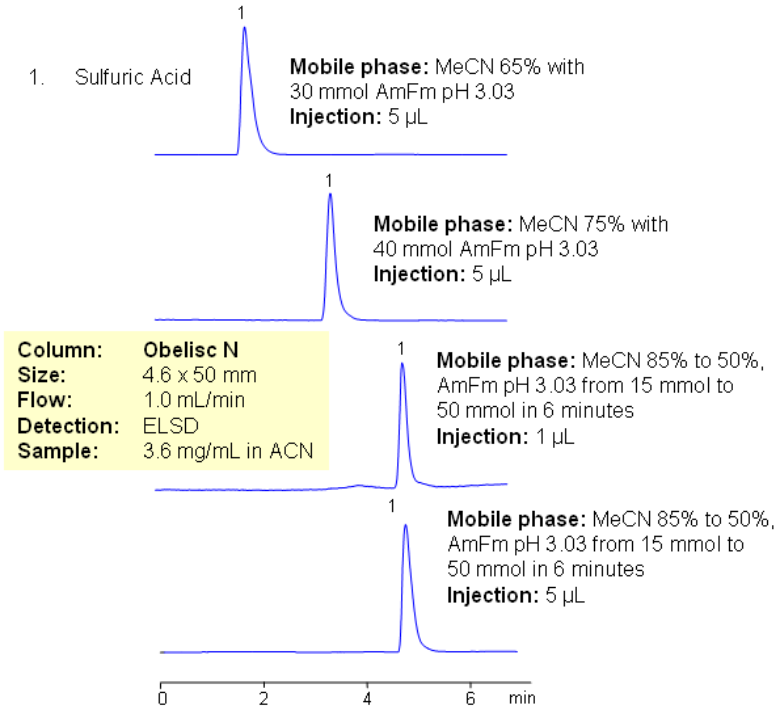
HPLC Retention of Sulfuric Acid on Obelisc N Column



Sulfuric acid is strong mineral acid, with pKa below zero. It is clear, colorless viscous liquid that is very corrosive. Sulfuric acid is used in chemical and pharmaceutical manufacturing as a reagent, as a drying agent, and as counter-ion for basic compounds. Sulfuric acid has no UV activity, but can be determined by ELSD and conductivity detection. It is often required to quantitate sulfuric acid along with main basic compound. Chromatographic retention of sulfuric acid is achieved on Obelisc N LC column. Short method employs mixed-mode ion-exchange approach. Sulfuric acid is retained by ion-exchange mechanism. Properties of Obelisc N stationary phase change with the amount of acetonitrile used in the mobile phase. The high capacity of Obelisc column and precision of ELSD allows to quantitate sulfuric acid within wide range of concentrations.

SIELC has developed the Obelisc™ columns, which are mixed-mode and utilize Liquid Separation Cell technology (LiSC™). These cost-effective columns are the first of their kind to be commercially available and can replace multiple HPLC columns, including reversed-phase (RP), AQ-type reversed-phase, polar-embedded group RP columns, normal-phase, cation-exchange, anion-exchange, ion-exclusion, and HILIC (Hydrophilic Interaction Liquid Chromatography) columns. By controlling just three orthogonal method parameters - buffer concentration, buffer pH, and organic modifier concentration - users can adjust the column properties with pinpoint precision to separate complex mixtures.

Method Parameters

Detection	ELSD Detection

Quelle: https://sielc.com/Application-HPLC-Retention-of-Sulfuric-Acid-on-Obelisc-N-Column

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