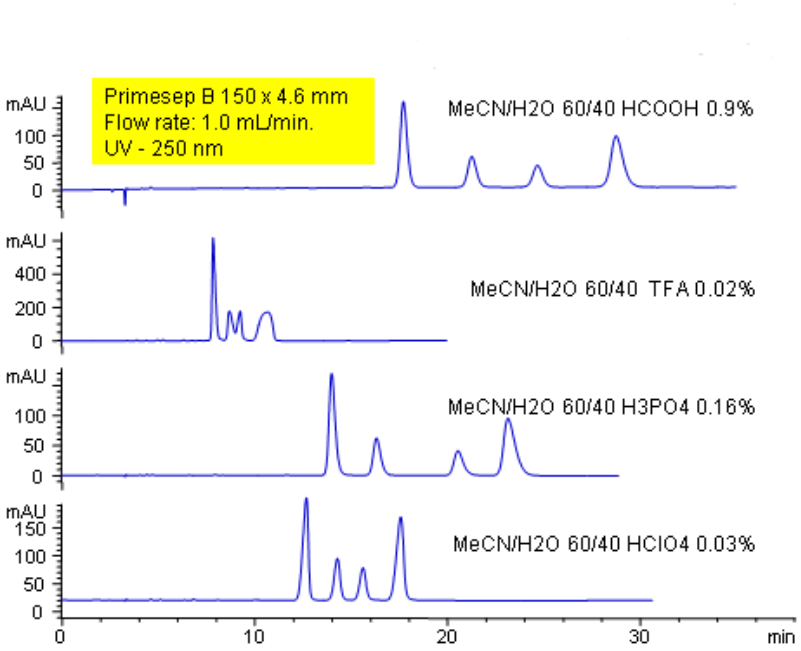
Separation of Aromatic Carboxylic Acids by Mixed-Mode HPLC



This application on Primesep B demonstrates the easy tuning of methods developed on Primesep columns. Aromatic carboxylic acids are easily separated and retention times can be shifted by simply changing the mobile phase modifier. Switching between formic, trifluoroacetic acid, phosphoric, and perchloric acids in a constant ratio of acetonitrile and water changes elution times, which is not possible on reversed-phase C18 columns. This effect is due to both the change in mobile phase pH and the counter ion that interacts with the basic functional group on the column. Mass spec compatible mobile phases of water, acetonitrile (MeCN, ACN) and, formic or trifluoracetic acid (TFA) can be chosen for LC/MS applications.

Method Parameters

Column	Primesep B, 4.6×150 mm, 5 µm, 100 Å
Mobile Phase	MeCN
Buffer	TFA, H3PO4, HClO4, FA
Flow Rate	1.0 mL/min
Detection	UV, 250 nm

Quelle: https://sielc.com/Application-Separation-of-Aromatic-Carboxylic-Acids-By-Mixed-Mode-HPLC