HPLC Determination of 2-Phosphonobutane-1,2,4-tricarboxylic on Newcrom BH Column

High Performance Liquid Chromatography (HPLC) Method for Analysis of 2-Phosphonobutane-1,2,4-tricarboxylic .

PBTC (2-phosphonobutane-1,2,4-tricarboxylic acid) is one of the most widely used scale inhibitors in the cooling water treatment industry. It works through binding with metal ions, therefore preventing them from forming scale. It is widely used especially due to performing well under harsh conditions like high temperatures and high alkalinity.

2-Phosphonobutane-1,2,4-tricarboxylic can be detected at low UV. Using Newcrom BH mixed-mode column and a mobile phase consisting of acetonitrile (ACN) and water with phosphoric acid (H3PO4) buffer, 2-phosphonobutane-1,2,4-tricarboxylic acid can be retained and UV detected at 220 nm.

Method Parameters

Column	Newcrom BH, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeCN/H2O – 20/80%
Buffer	H3PO4 – 1.0%
Flow Rate	1 mL/min
Detection	UV 220 nm

Quelle: https://sielc.com/hplc-determination-of-2-phosphonobutane-124-tricarboxylic

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