

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

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

Chromatogram



Description

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

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 acid 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 220nm.

Method Parameters

Mobile Phase	MeCN/H ₂ O – 20/80%
Buffer	H ₃ PO ₄ – 1.0%
Flow Rate	1 ml/min
Detection	UV 220 nm
Class of Compounds	Acid, Hydrophilic, Ionizable
Analyzing Compounds	2-Phosphonobutane-1,2,4-tricarboxylic acid

HPLC Column Used

Newcrom BH, 4.6 x 150 mm, 5 µm, 100 Å, dual ended

[Order this column at hplc-shop.de →](http://hplc-shop.de)