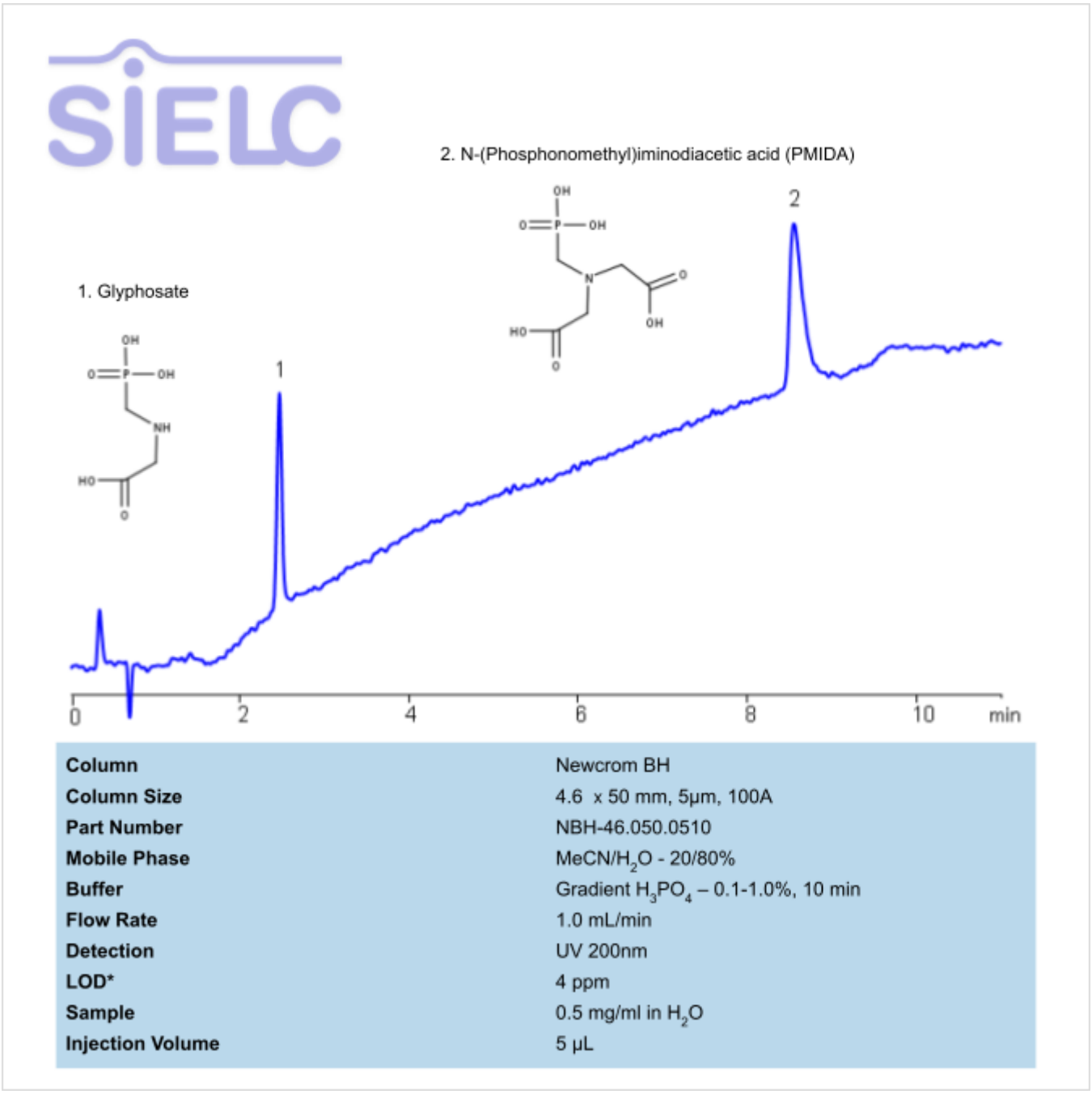
HPLC UV Method for Simultaneous Analysis of Glyphosate and N-(Phosphonomethyl)iminodiacetic acid (PMIDA) on Newcrom BH Column

https://sielc.com/hplc-method-for-glyphosate-and-pmida

Chromatogram



Column	Newcrom BH
Column Size	4.6 x 50 mm, 5µm, 100A
Part Number	NBH-46.050.0510
Mobile Phase	MeCN/H_2O - 20/80%
Buffer	Gradient H_3PO_4 – 0.1-1.0%, 10 min
Flow Rate	1.0 mL/min
Detection	UV 200nm
LOD*	4 ppm
Sample	0.5 mg/ml in H_2O
Injection Volume	5 µL

Description

High Performance Liquid Chromatography (HPLC) Method for Analysis of PMIDA (Phosphonomethyliminodiacetic acid) , Glyphosate .

Glyphosate is a broad-spectrum herbicide. It works through inhibiting the plant enzyme 5-enolpyruvylshikimate-3-phosphate synthase. The enzyme is essential for producing amino acids within the plant. Glyphosate is used across agriculture and forestry, as well as rare aquatic environments. It's chemical formula is C 3 H 8 NO 5 P . You can find detailed UV spectra of Glyphosate and information about its various lambda maxima by visiting the following link.

N-(Phosphonomethyl)iminodiacetic acid , also known as PMIDA , is a key intermediate in the making of glyphosate. It has the chemical formula (HO) 2 P(O)CH 2 N(CH 2 CO 2 H) 2 . You can find detailed UV spectra of PMIDA and information about its various lambda maxima by visiting the following link.

PMIDA (Phosphonomethyliminodiacetic acid) , Glyphosate can be retained and analyzed using the Newcrom BH stationary phase column. The analysis utilizes an isocratic method with a simple mobile phase consisting of water and acetonitrile (MeCN) with a phosphoric acid buffer. Detection is performed using UV.

Method Parameters

Mobile Phase	MeCN/H2O
Buffer	Gradient H3PO4 – 0.1-1%, 10 min
Flow Rate	1.0 ml/min
Detection	UV, 200 nm
LOD*	4 ppm
Class of Compounds	Herbidices
Analyzing Compounds	PMIDA (Phosphonomethyliminodiacetic acid),Glyphosate

HPLC Column Used

Newcrom BH, 4.6 x 50 mm, 5 µm, 100 A, dual ended

Order this column at hplc-shop.de →