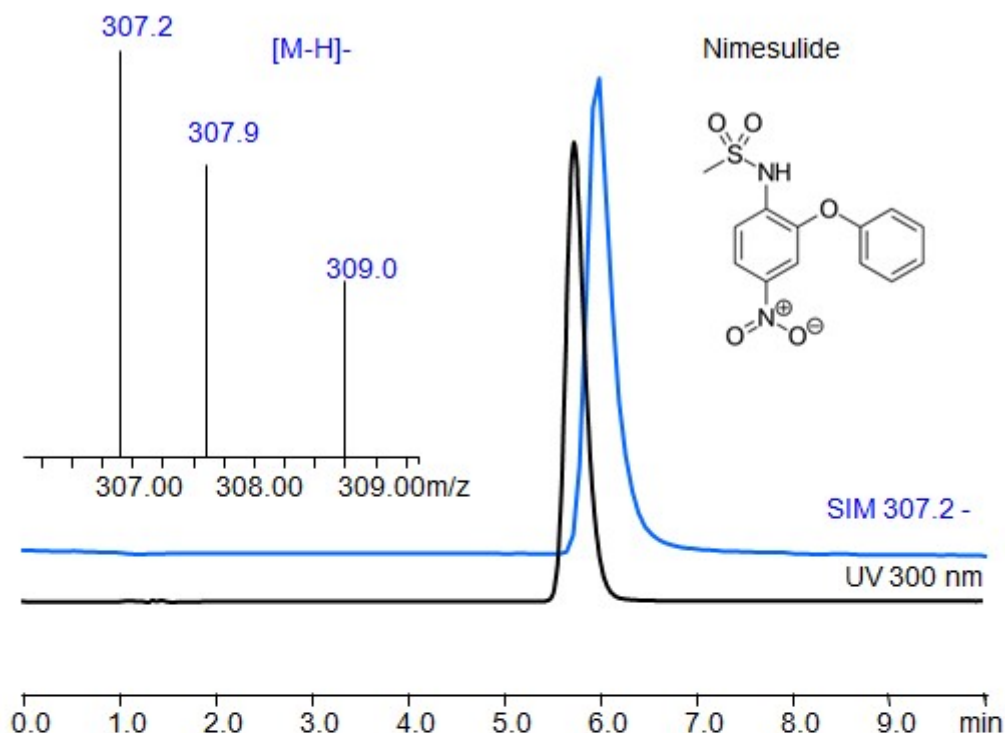


HPLC – MS Method for Analysis of Nimesulide on Newcrom R1 Column

<https://sielc.com/hplc-method-for-analysis-of-nimesulide>

Chromatogram



Column:	Newcrom R1
Column size:	2.1 × 100 mm, 5µm
Column part number:	NR1-21.100.0510
Mobile phase:	MeCN – 45%
Buffer:	Ammonium formate pH 3.0 – 20 mM
Flow rate:	0.2 ml/min
UV detection:	300 nm, SIM 307.2 -

MS Conditions:	
Detection:	(-) ESI, SIM 307.2 -
Spray Voltage:	1.5 kV
Nebulizing gas:	1.5 L/min
Drying gas:	15 L/min
DL temp:	250 °C
Heat Block:	400 °C

Description

· HPLC Method for Analysis of Nimesulide on Newcrom R1 Column by SIELC Technologies

Nimesulide is a non-steroidal anti-inflammatory drug (NSAID) with the chemical formula C₁₃H₁₂N₂O₅S. It possesses analgesic and antipyretic properties. It inhibits the enzyme cyclooxygenase, specifically COX-2, which is responsible for the synthesis of prostaglandins, compounds that play a key role in promoting inflammation, pain, and fever. Due to concerns

regarding liver toxicity, the use of Nimesulide is restricted or banned in some countries.

Nimesulide is synthesized via various chemical routes which generally involve the condensation of 4-nitro-2-phenoxyaniline with formaldehyde and subsequent sulfonation of the resulting methylene intermediate.

Nimesulide can be retained, separated and analyzed on a Newcrom R1 reverse phase stationary phase column using an isocratic analytical method with a simple mobile phase of water, Acetonitrile (MeCN), and an ammonium formate as a buffer. This analysis method can be detected using UV at 300 nm, an Evaporative Light Scattering Detector (ELSD), or any other evaporative detection method (CAD, ESI-MS)

Method Parameters

Mobile Phase	MeCN – 50%,
Buffer	Ammonium Formate pH 3.0-20 mM
Flow Rate	0.2 ml/min
Detection	UV 300 nm, SIM 307.2-
Spray Voltage:	1.5 kV
Nebulizing gas:	1.5 L/min
Drying gas:	15 L/min
DL temp:	250 ■C
Heat Block:	400 ■C
Class of Compounds	Drug
Analyzing Compounds	Nimesulide

HPLC Column Used

Newcrom R1, 2.1 x 100 mm, 5 µm, 100 A, dual ended

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