

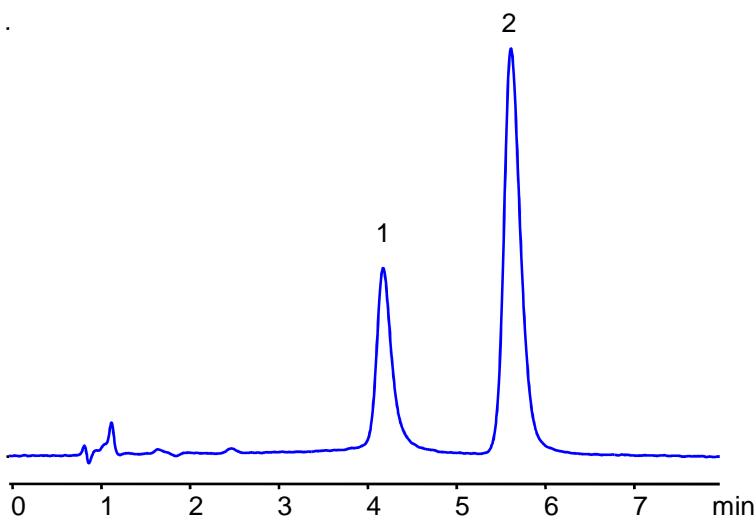
CoAp # 2017-2

Cool Applications™

“Making Tough LC Applications Look Cool”

HPLC Analysis of Nitrite and Nitrate Ions with UV Detection on Mixed-Mode Column

Column:	Primesep D
Part number:	D-32.100.0510
Column size:	3.2 x 100 mm, 5 µm, 100Å
Mobile phase:	A: 20% ACN with 70 mM NaH ₂ PO ₄ pH 3.0
Flow rate:	0.6 ml/min
Detection:	210 nm



1	Nitrite Ion
	NO_2^-
2	Nitrate Ion
	NO_3^-

Application Comments

Analysis of nitrate in water is an important test to determine safety of drinking water and contamination levels in waste waters and in marine life. Large amounts of nitrates in drinking water can cause serious illness in infants. Nitrates get into drinking supply through waste from livestock, septic tanks, crop and lawn fertilizers, and other sources.

Ion chromatography and spectrometry methods are the most popular approaches to analyze nitrate and nitrite ions. SIELC has developed a simple HPLC analysis based on mixed-mode chromatography and UV detection. This approach can be used in analysis of nitrate and nitrite, and allows to determine concentration of nitrate at as low as 100 ppb level and nitrite at as low as 200 ppb level. Sample preparation may be required for more complex sample matrices like soil.

SIELC Technologies, Contact us at support@sielc.com with your toughest applications.