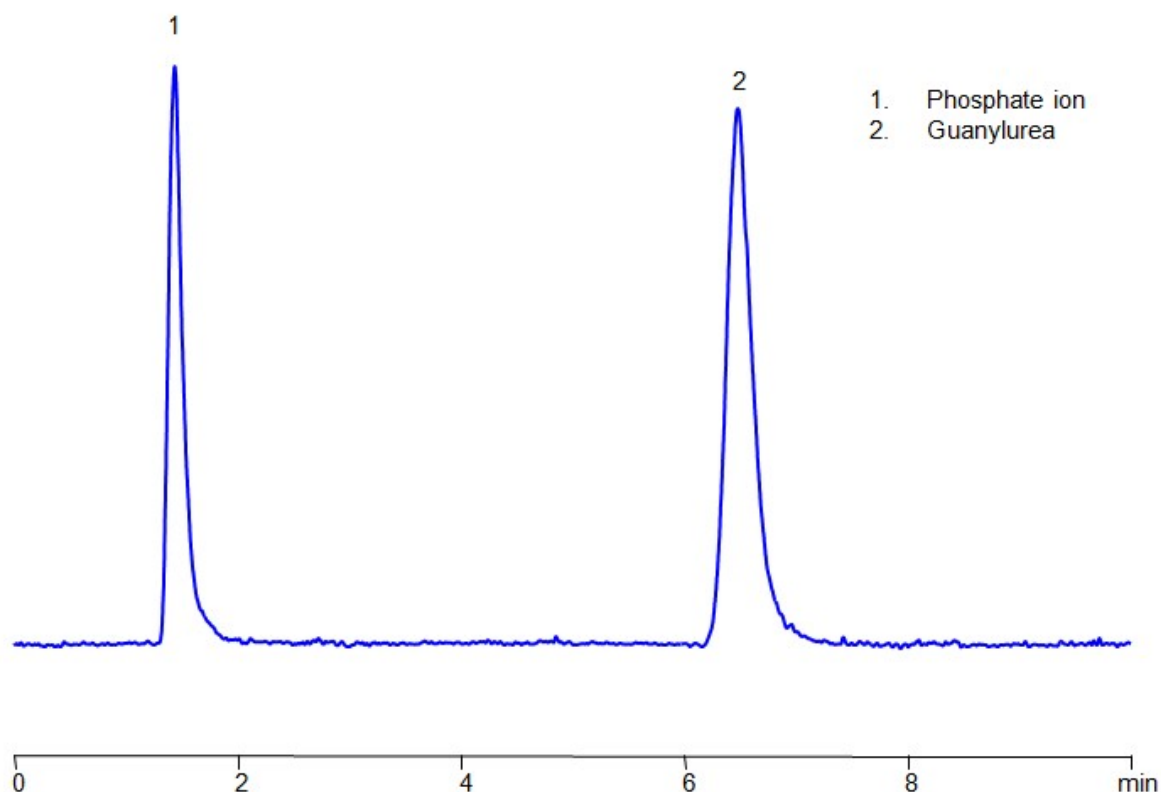


HPLC ELSD Method for Analysis of Guanylurea on Primesep 100 Column

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

Chromatogram



Column:	Primesep 100
Column size:	2.1 × 100 mm, 5 µm
Column part number:	100-21.100.0510
Mobile phase:	MeCN/H ₂ O – 5/95%
Buffer:	HCOOH - 5%
Flow rate:	0.2 mL /min
Sample:	Guanylurea phosphate 2 mg/ml in H ₂ O
Injection volume:	1 µl
Detection:	ELSD, the nebulizer and evaporator temperatures 50°C, with a gas flow rate of 1.6 Standard Liters per Minute (SLM)
LOD:	2 ppm

Description

· HPLC Method for Analysis of Guanylurea on Primesep 100 Column by SIELC Technologies

Guanylurea, also known as guanylurea phosphate or imidodicarbonimidic diamide, is a chemical compound with the formula $C_2H_6N_4O$. It is derived from guanidine, a compound found in the urine of mammals, which is itself a derivative of urea.

The structure of guanylurea is characterized by a urea molecule (carbonyl group flanked by two amine groups) connected to an additional amine group. This structure imparts unique chemical properties to guanylurea, making it distinct from simpler urea. It may be used as an intermediate in the synthesis of other chemical compounds, particularly in pharmaceuticals and agrochemicals. In scientific research, guanylurea may be studied for its chemical properties and potential applications in various fields.

Guanylurea can be used as a source of nitrogen in fertilizers, similar to urea. Its efficacy as a fertilizer comes from its ability to release nitrogen slowly into the soil, which can be beneficial for plant growth.

You can find detailed UV spectra of Guanylurea and information about its various lambda maxima by visiting the following link.

Guanylurea can be retained, and analyzed on a Primesep 100 mixed-mode stationary phase column using an isocratic analytical method with a simple mobile phase of water, Acetonitrile (MeCN), and a formic acid as a buffer. This analysis method can be detected using ELSD.

Method Parameters

Mobile Phase	MeCN/H ₂ O – 5/95%
Buffer	Formic acid – 5%
Flow Rate	0.2 ml/min
Detection	ELSD, the nebulizer and evaporator temperatures 50°C, with a gas flow rate of 1.6 Standard Liters per Minute (SLM)
Sample	Guanylurea phosphate 2 mg/ml in H ₂ O
Injection volume	1 µl
LOD*	2 ppm
Class of Compounds	Ureas
Analyzing Compounds	Guanylurea

HPLC Column Used

Primesep 100, 2.1 x 100 mm, 5 µm, 100 Å, dual ended

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