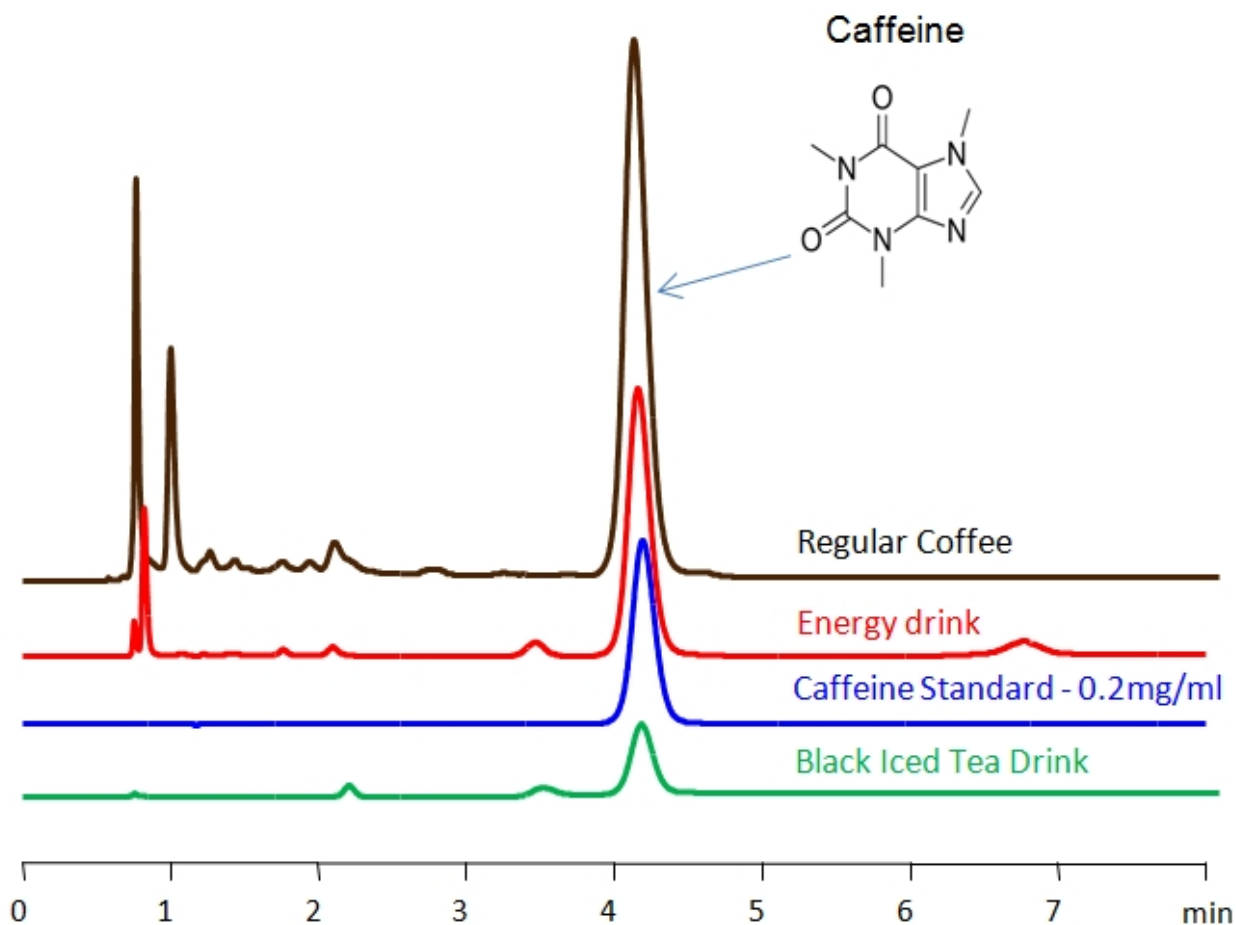


HPLC Analysis of Caffeine in Drinks with Environmentally Friendly Mobile Phase on Primesep SB Column

<https://sielc.com/hplc-analysis-of-caffeine-in-drinks-with-environmentally-friendly-mobile-phase>

Chromatogram



Column:	Primesep SB
Column size:	3.2 × 100 mm, 5 µm
Mobile phase:	EtOH/H ₂ O - 10/90%
Buffer:	H ₃ PO ₄ – 0.3%
Flow rate:	0.5 ml/min
Detection:	270 nm

Description

· High Performance Liquid Chromatography (HPLC) Method for Analysis of Caffeine .

Caffeine is a natural stimulant and methylxanthine alkaloid. with the molecular formula C₈H₁₀N₄O₂. Caffeine can be found in a variety of plants, including tea, coffee, cocoa, kola nuts, and guarana. Ingestion of it can increase alertness and cognitive function. It can also cause worsening anxiety, heart palpitations, and headaches.

Caffeine can be retained and analyzed using the Primesep SB stationary phase column. The analysis utilizes an isocratic method with a simple mobile phase consisting of water and ethanol (EtOH) with a phosphoric acid buffer. Detection is performed using UV. You can find detailed UV spectra of Caffeine and information about its various lambda maxima by visiting the following link.

Method Parameters

Mobile Phase	EtOH – 10%
Buffer	H3PO4 – 0.3%
Flow Rate	0.5 ml/min
Detection	UV, 270 nm
Class of Compounds	Xanthine, Hydrophobic, Ionizable
Analyzing Compounds	Caffeine

HPLC Column Used

Primesep SB, 3.2 x 100 mm, 5 µm, 100 A, dual ended

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