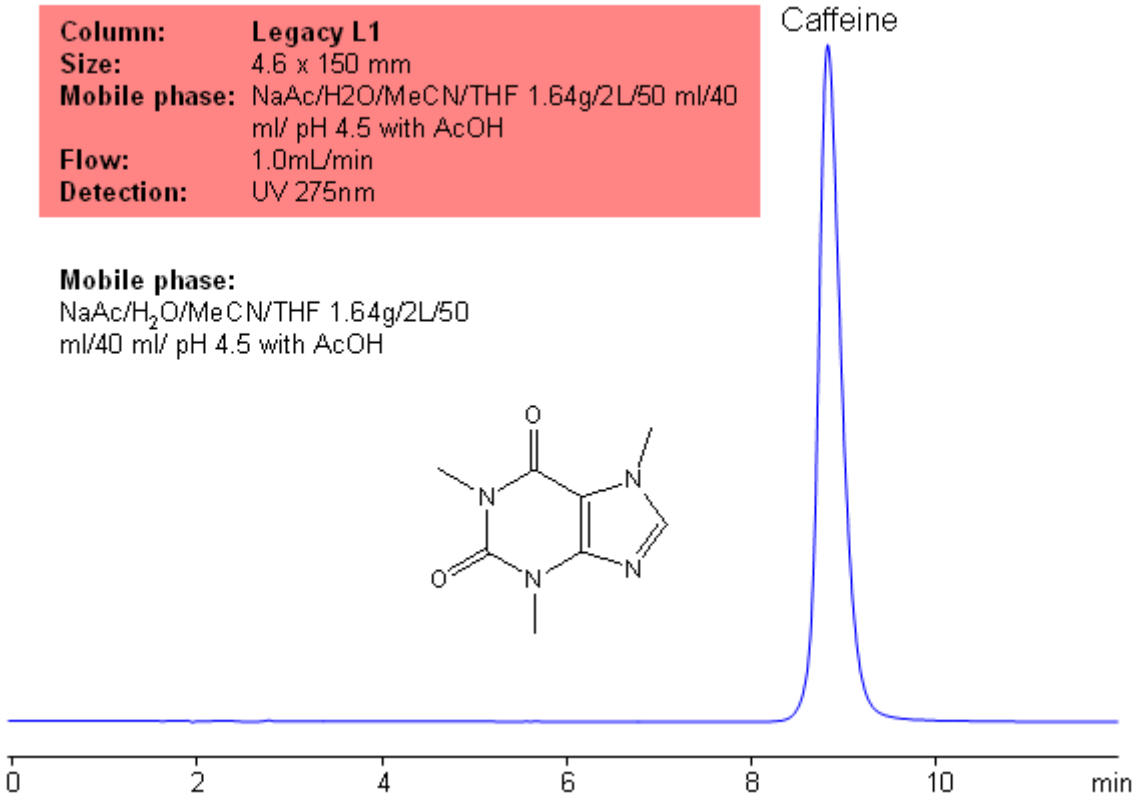
USP Methods for the Analysis of Caffeine using the Legacy L1 Column

https://sielc.com/Application-USP-Methods-for-the-Analysis-of-Caffeine-using-the-Legacy-L1-Column

Chromatogram



Description

Application Notes: Caffeine is the most common stimulant used. According to USP methods, caffeine should be anhydrous or contain no more than one molecule of water of hydration. Additionally, caffeine should not contain more than 101% and no less 98.5% caffeine calculate on a anhydrous basis. The USP HPLC method for the separation of caffeine was developed on Legacy L1 column according to the US Pharmacopeia methodology. L1 classification is assigned to reversed-phase HPLC column containing C18 ligand. Support for the material is spherical silica gel with particles size 3-10 um and pore size of 100-120A. Resolution between critical pairs corresponds to rules and specifications of UPS.

Application Columns: Legacy L1 C18 HPLC column · Application compounds: Caffeine · Mobile phase: NaAc/H2O/MeCN/THF 1.64g/2L/50 ml/40 ml/ pH 4.5 with AcOH · Detection technique: UV · Reference: USP35: NF30 Application Columns: Legacy L1 C18 HPLC column · Application compounds: Hydrocortisone

Method Parameters

Mobile Phase	NaAc/H2O/MeCN/THF 1.64g/2L/50 ml/40 ml/ pH 4.5 with AcOH
Flow Rate	1.0 ml/min
Detection	UV, 275 nm
Class of Compounds	Xanthine, Hydrophobic, Ionizable
Analyzing Compounds	Caffeine

HPLC Column Used

Legacy L1, 4.6×150 mm, 5 µm, 100A

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