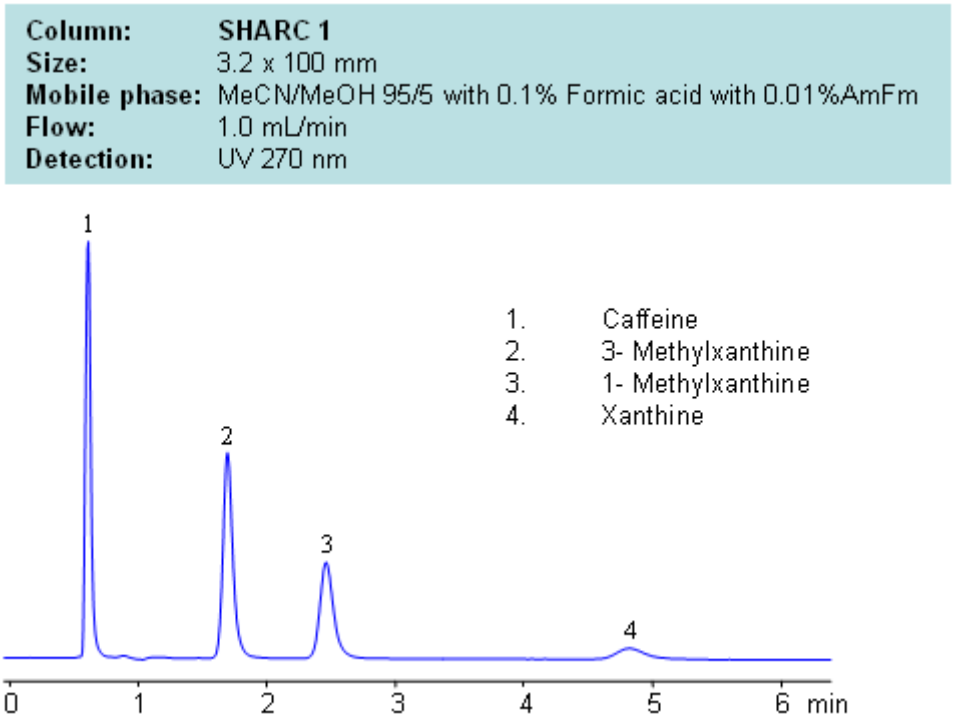
HPLC Separation of Caffeine, 3- Methylxanthine, 1- Methylxanthine, Xanthine

https://sielc.com/separation_of_caffiene_3-methylxanthine_1-methylxanthine_xanthine

Chromatogram



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Description

Application Notes: Xanthines are polar neutral compounds which are hard to retain and separate by traditional reversed-phase chromatography. However a hydrogen bonding method makes separation possible due to an observable correlation between the number of hydrogens available for interaction and retention time. Molecules with no hydrogens available for interactions retain less, and compound with multiple hydrogen donors retain the most. Retention time can be controlled by changing ratio of ACN:MeOH. Other protic and aprotic solvents can be used to control retention time and selectivity of separation.

Application Columns: SHARC 1, 3.2×100 mm, 5 um, 100A, To learn more about SHARC 1 columns click here . To order this column click here . To see more chromatographic separations check our web site.

Application Compounds: Caffeine, 3-methylxanthine, 1-methylxanthine, and xanthine

Method Parameters

Mobile Phase	MeCN/MeOH
Buffer	AmFm, Formic acid
Flow Rate	1.0 ml/min
Detection	UV, 270 nm
Class of Compounds	Drug, Acid, Hydrophilic, Ionizable, Vitamin, Supplements

Analyzing Compounds	Caffeine, 3- Methylxanthine, 1- Methylxanthine, Xanthine

HPLC Column Used

Sharc 1, 3.2×100 mm, 5 µm, 100A

Order this column at hplc-shop.de →