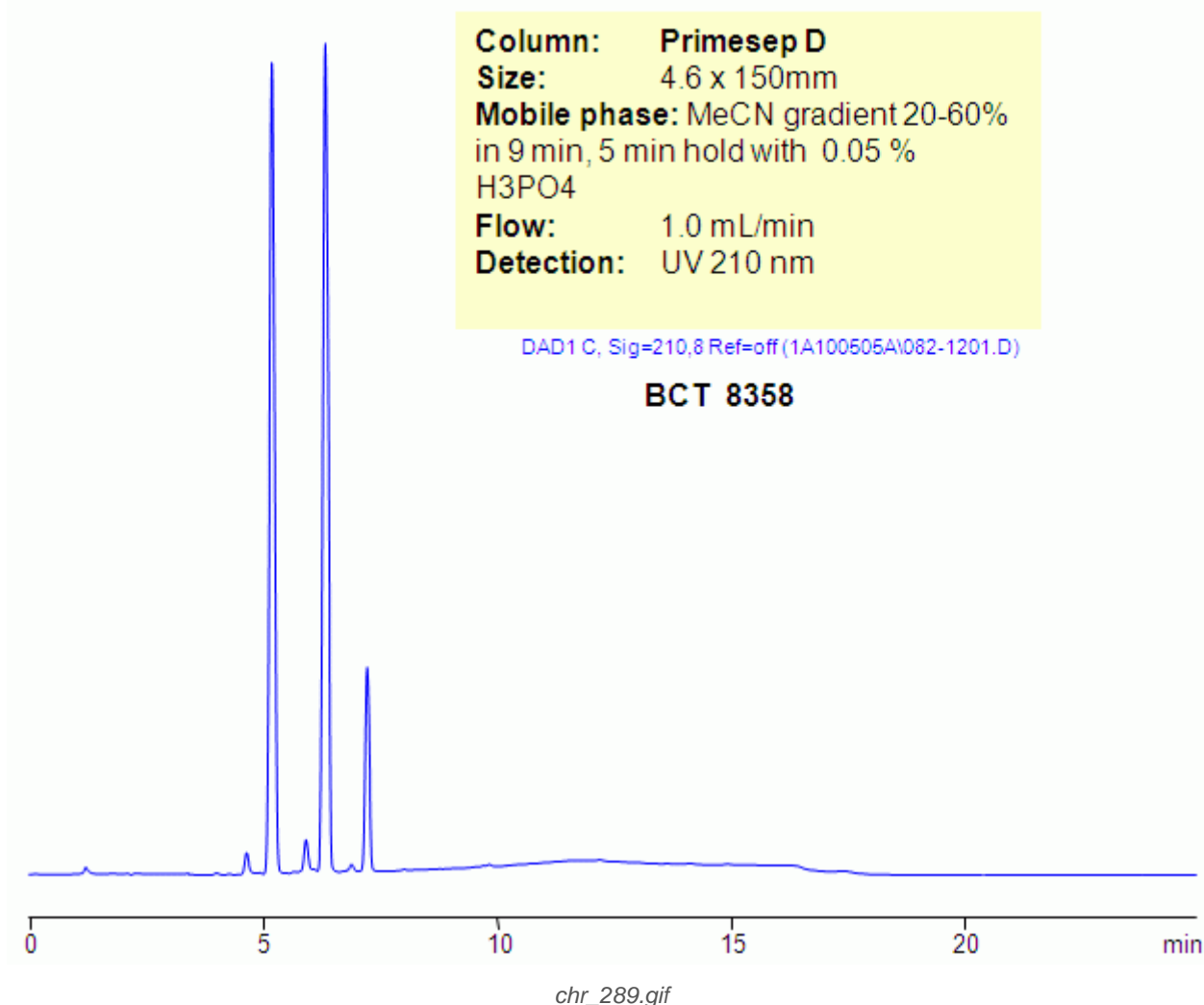


HPLC Separation of Benzalkonium Chloride BCT 8358 on Primesep D column

<https://sielc.com/Application-HPLC-Separation-of-Benzalkonium-Chloride-BCT-8358-on-Primesep-D-column>

Chromatogram



Description

Benzalkonium chloride is a mixture of alkylbenzyltrimethylammonium chlorides of various even-numbered alkyl chain lengths. It is used as a surfactant. Hydrophobic quaternary amines, like BTC, produce poor peak shape in reversed-phase chromatography due to interaction of quaternary amines with residual silanols. Ideal peak shape can be achieved on reversed-phase anion-exchange columns like Primesep D. Primesep D has a basic group on the surface of silica gel that shields silanols from interacting with quaternary, tertiary, secondary and primary amines. This allows to achieve symmetrical peaks for hydrophobic basic analytes. Compounds need to be hydrophobic enough to get compensation for repulsion effect coming from stationary phase. BTC can be monitored by ELSD and UV. Primesep D will also retain acidic counter-ions of quaternary amines, so simultaneous analysis of hydrophobic basic and hydrophilic basic compounds is possible.

Method Parameters

Mobile Phase	MeCN
Buffer	H ₃ PO ₄
Flow Rate	1.0 ml/min

Detection	210
Class of Compounds	Surfactant, Hydrophobic, Ionizable
Analyzing Compounds	Benzalkonium Chloride BCT 8358

HPLC Column Used

Primesep D, 4,6x150 mm, 5 µm, 100A

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