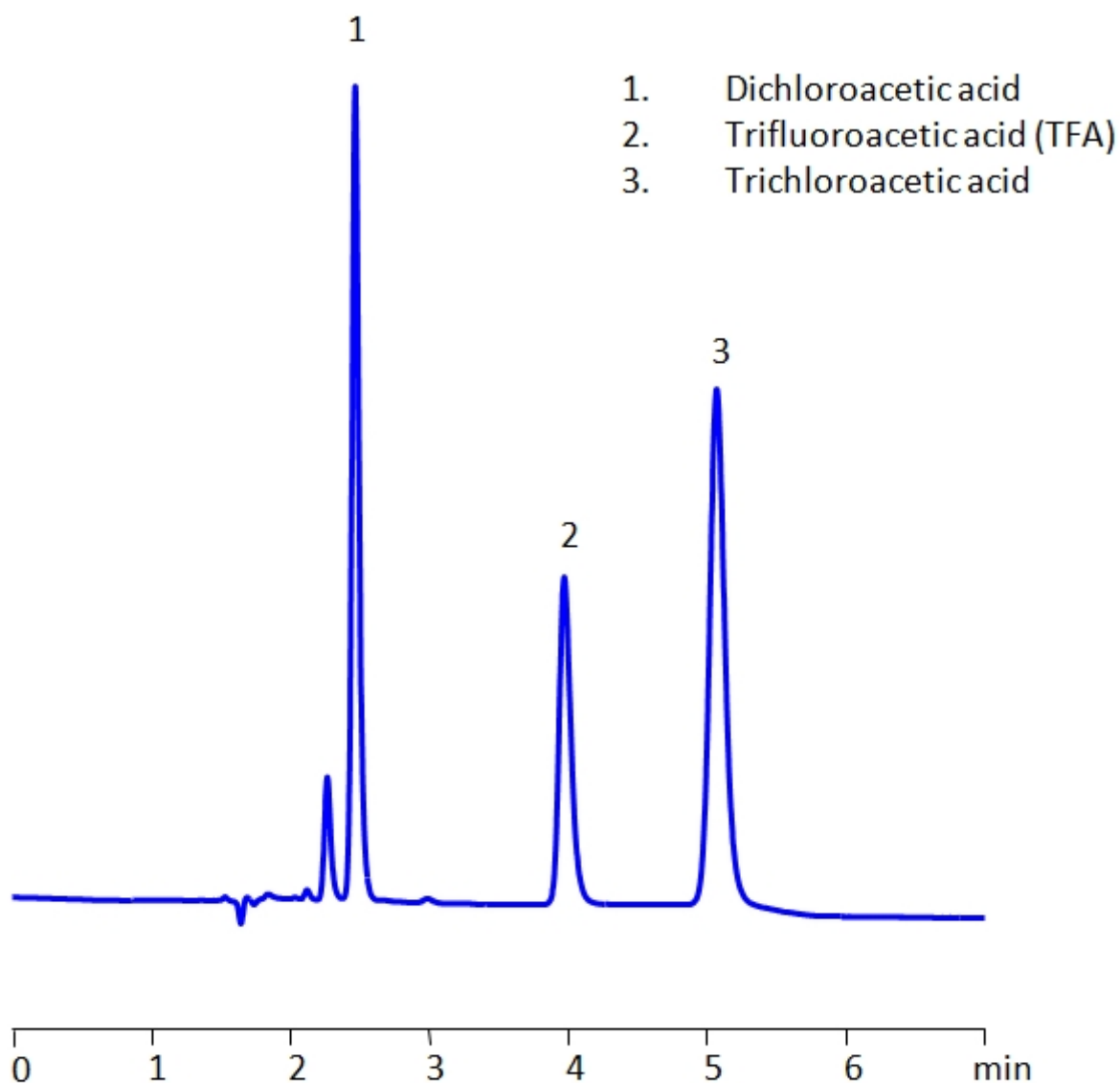


HPLC Separation of Haloacetic acids on Newcrom BH Column

<https://sielc.com/hplc-separation-of-haloacetic-acids-on-newcrom-bh-column>

Chromatogram



Column:	Newcrom BH
Column size:	4.6 × 150 mm, 5 μm
Mobile phase:	MeCN/H ₂ O – 50/50%
Buffer:	H ₂ SO ₄ – 0.5%
Flow rate:	1 ml/min
UV detection:	200 nm

Description

High Performance Liquid Chromatography (HPLC) Method for Analysis of Trichloroacetic acid , Dichloroacetic acid , TFA (Trifluoroacetic Acid) .

Dichloroacetic Acid (DCA) , also known as dichloroacetic acid (BCA), is a highly corrosive acid with the chemical formula $C_2H_2Cl_2O_2$. While it is used in personal care items and disinfectants, it is a known carcinogen. Despite that, research shows that it may be a plausible treatment for certain cancers.

Trifluoroacetic Acid (TFA) is a synthetic organofluorine acid with the chemical formula $C_2HF_3O_2$. It is corrosive and toxic to aquatic life and mammals, causing severe irritation and burns to skin, eyes, and the respiratory tract. Not only that, TFA is also highly mobile and persistent, leading to high retention of it in soil and water. Determination of its threat level on the environmental and health levels are still ongoing.

Trichloroacetic Acid (TCA) , also known as trichloroethanoic acid, is an analogue of acetic acid with the chemical formula $C_2HCl_3O_2$. It is often used as a skin peeling treatment to exfoliate damaged skin and encourage collagen production. In laboratory research, it is used for precipitating proteins and to extract and prepare standards for ascorbic acid (Vitamin C) assays.

Trichloroacetic acid , Dichloroacetic acid , TFA (Trifluoroacetic Acid) can be retained and analyzed using the Newcrom BH stationary phase column. The analysis utilizes an isocratic method with a simple mobile phase consisting of water and acetonitrile (MeCN) with a [buffer] buffer. Detection is performed using UV.

Method Parameters

Mobile Phase	MeCN/H ₂ O – 50/50%
Buffer	H ₂ SO ₄ – 0.5%
Flow Rate	1.0 ml/min
Detection	UV 200nm
Class of Compounds	Acid
Analyzing Compounds	Trichloroacetic acid,Dichloroacetic acid,TFA (Trifluoroacetic Acid)

HPLC Column Used

Newcrom BH, 4.6 x 150 mm, 5 µm, 100 Å, dual ended

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