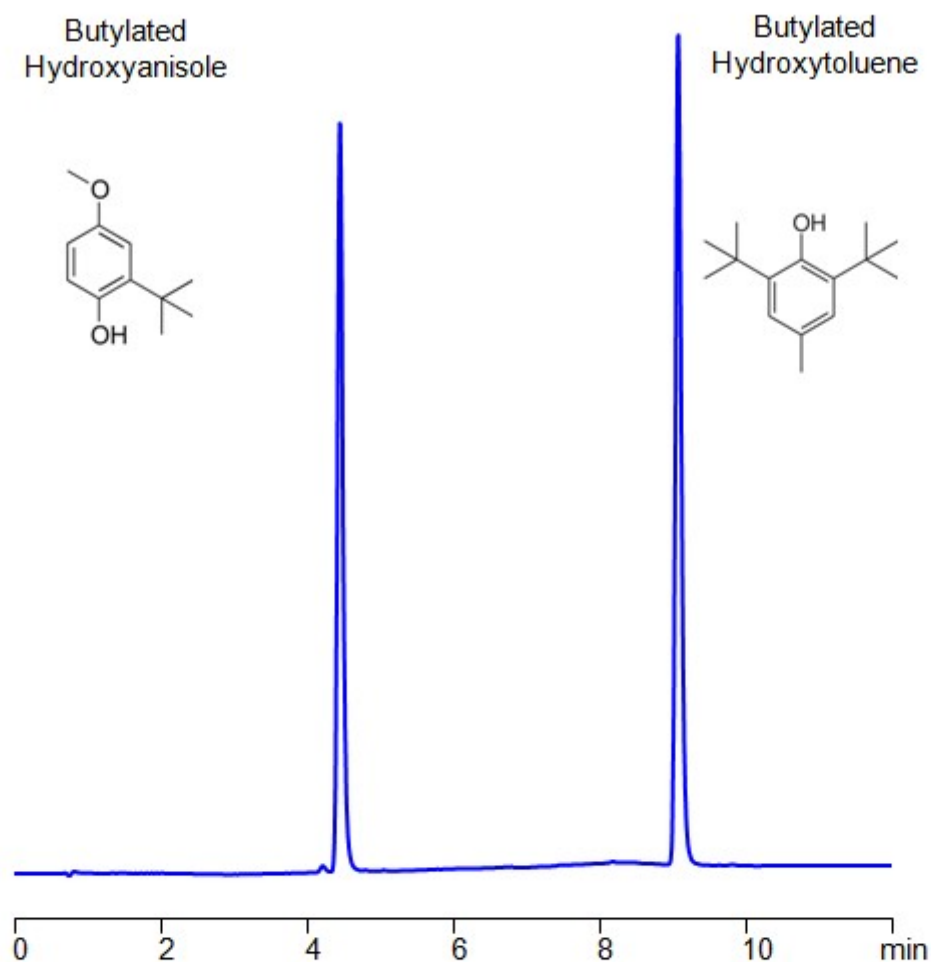


HPLC Method for Separation BHA and BHT on Newcrom R1 Column

<https://sielc.com/hplc-determination-of-bha-bht>

Chromatogram



Column:	Newcrom R1
Column size:	3.2× 100 mm, 5 µm
Column part number:	NR1-3.2.100.0510
Mobile phase:	Gr MeCN 50 - 90% in 6 min, with 4 min hold afterwards
Buffer:	H ₂ SO ₄ – 0.1%
Flow rate:	0.5 mL/min
Detection:	UV 280 nm

Description

HPLC Method for Analysis of Butylated hydroxytoluene , 3-tert-butyl-4-hydroxyanisole (BHA) on Newcrom R1 Column by SIELC Technologies

3-tert-butyl-4-hydroxyanisole (BHA) is a synthetic antioxidant with the chemical formula C₁₁ H₁₆ O₂ . It is commonly used as a food preservative. It is an aromatic compound that belongs to a class of compounds known as butylated hydroxyanisoles. It is

used to prevent the spoilage of fats and oils in various food products. It helps protect these substances from oxidative degradation, extending the shelf life of processed foods. The compound has a molecular structure with a tert-butyl group (tert-butyl radical) attached to the oxygen atom of a hydroxyanisole group. The IUPAC name for BHA is 2-tert-butyl-4-methoxyphenol. You can find detailed UV spectra of 3-tert-butyl-4-hydroxyanisole (BHA) and information about its various lambda maxima by visiting the following link.

Butylated hydroxytoluene (BHT) is a synthetic antioxidant with the chemical formula $C_{15}H_{24}O$. It belongs to the class of compounds known as butylated hydroxytoluenes. It is widely used in a variety of industries, particularly in food preservation, cosmetics, and industrial products. It works by preventing oxidative degradation. While considered safe for use within regulatory limits, its potential health and environmental effects continue to be areas of study and discussion. You can find detailed UV spectra of Butylated hydroxytoluene and information about its various lambda maxima by visiting the following link. .

Butylated hydroxytoluene , 3-tert-butyl-4-hydroxyanisole (BHA) can be retained, separated and analyzed on a reversed-phase Newcrom R1 column with a mobile phase consisting of water, Acetonitrile (MeCN), and sulfuric acid. This analytical method can be detected with high resolution and peak symmetry at a wavelength of 280 nm using UV detection

Method Parameters

Mobile Phase	Gradient MeCN – 50 -90%, 6 min, 4 min hold
Buffer	H ₂ SO ₄ – 0.1%
Flow Rate	0.5 ml/min
Detection	UV 280 nm
Injection volume:	1 µL
Sample	1 mg/ml
Sample Diluent	MeCN/H ₂ O – 50/50%
Class of Compounds	butylated hydroxyanisoles (BHAs)
Analyzing Compounds	Butylated hydroxytoluene,3-tert-butyl-4-hydroxyanisole (BHA)

HPLC Column Used

Newcrom R1, 3.2 x 100 mm, 5 µm, 100 Å, dual ended

[Order this column at hplc-shop.de →](#)