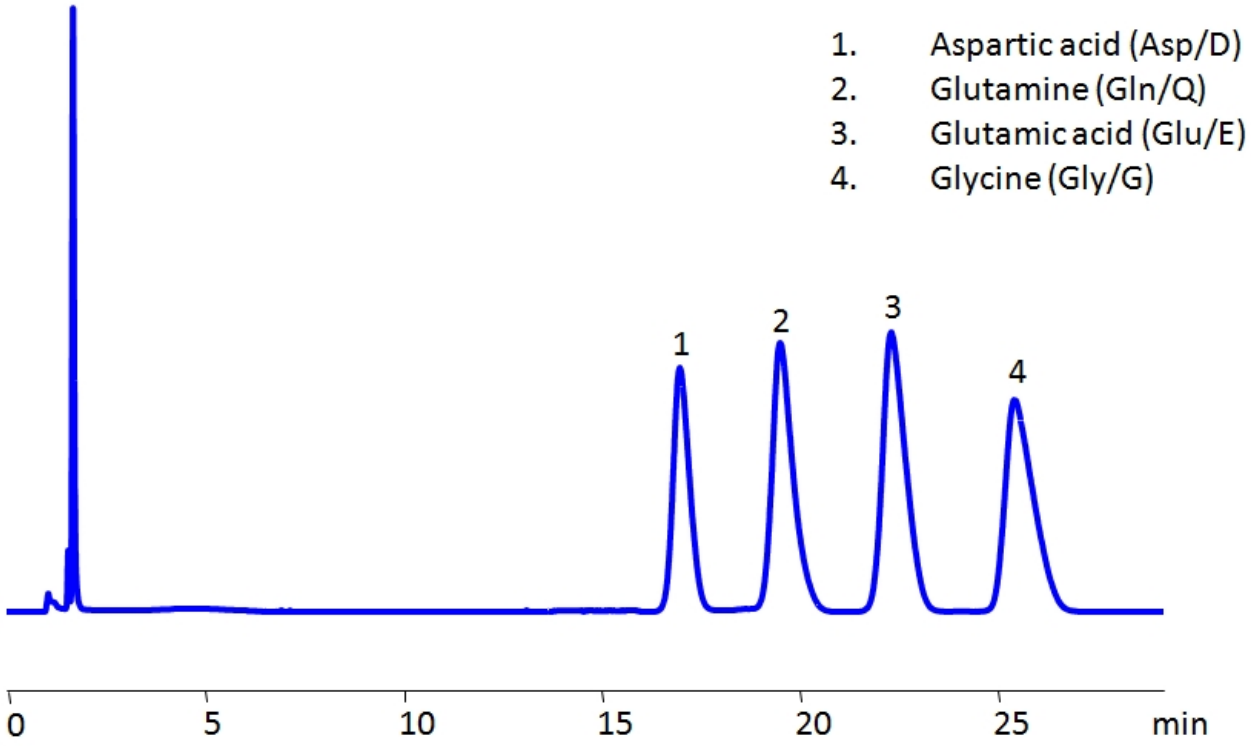
HPLC Separation of Amino Acids on Newcrom AH Column

https://sielc.com/hplc-separation-of-amino-acids-on-newcrom-ah-column

Chromatogram



Column:	Newcrom AH
Column size:	4.6 × 150 mm, 5 µm
Mobile phase:	MeCN – 50%
Buffer:	Formic Acid – 0.1%
Flow rate:	1 ml/min
Detection:	CAD

Description

Amino acids are the building blocks of proteins. Based on their dietary requirement, they are classified into essential and non-essential amino acids. Essential amino acids cannot be synthesized by the human body in sufficient quantities and must be obtained from the diet. Non-essential amino acids, on the other hand, can be synthesized by the body and are not dependent on dietary intake.

It’s worth noting that while these amino acids are considered “non-essential” for adults under normal circumstances because the body can synthesize them, there are situations where some may become “conditionally essential.” This means that under certain conditions like illness, stress, or trauma, the body might not produce them in sufficient quantities, and dietary intake becomes necessary. Arginine, for instance, is considered conditionally essential, especially during periods of rapid growth, illness, or trauma.

You can find detailed UV spectra of Aspartic Acid and information about its various lambda maxima by visiting the following link.

You can find detailed UV spectra of Glutamine and information about its various lambda maxima by visiting the following link.

Aspartic Acid , L-Glutamine , Glutamic Acid , Glycine can be retained and analyzed using the Newcrom AH stationary phase column. The analysis utilizes an isocratic method with a simple mobile phase consisting of water and acetonitrile (MeCN) with a Formic Acid buffer. Detection is performed using CAD.

Method Parameters

Mobile Phase	MeCN – 50%
Buffer	Formic Acid – 0.1%
Flow Rate	1.0 ml/min
Detection	CAD
Class of Compounds	Drug, Acid, Hydrophilic, Ionizable, Vitamin, Supplements, Amino acid
Analyzing Compounds	Aspartic Acid,L-Glutamine,Glutamic Acid,Glycine

HPLC Column Used

Newcrom AH, 4.6 x 150 mm, 5 µm, 100 A, dual ended

Order this column at hplc-shop.de →