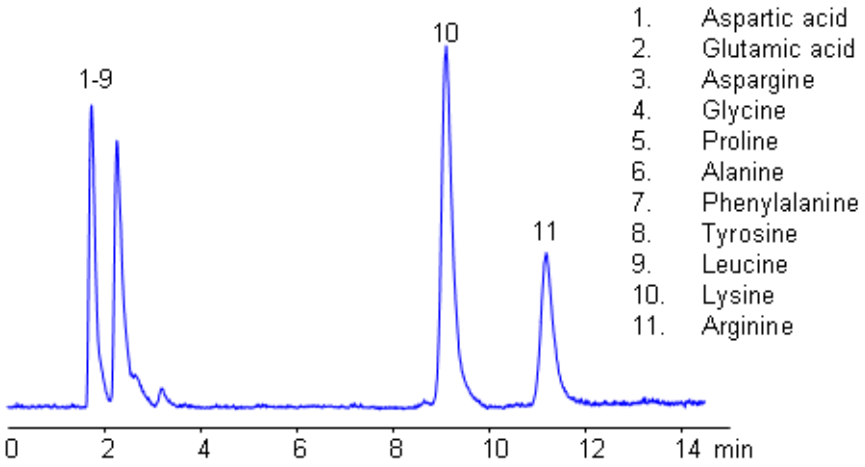
HPLC Separation of Lysine and Arginine from Other Amino Acids

Column:	**Primesep C**
Size:	4.6 x 150 mm
Mobile phase:	MeCN 15% with 15 mM AmAc pH 5.0
Flow:	1.0 mL/min
Detection:	ELSD



Application Notes: Amino acids are polar ionic compounds which are not retained on reversed-phase column without ion-pairing reagent. In our application, lysine and arginine can be separated from other amino acids. Amino acids with a pH between 3 and 5 and with one basic and one acidic group become very polar. Therefore these amino acids don't have strong ion-exchange interaction with Primesep C stationary phase. Amino acids with two amino groups still carry positive net charge and can interact with stationary phase by cations-exchange mechanism. pH variation of the mobile phase can be an effective tool to adjust selectivity of separation for zwitter-ionic, basic and acidic compounds. This method can be used for separation of mono-charged compounds from compounds having an extra charge.

Application Columns: Primesep C Application compounds: Aspartic acid, Glutamic acid, Aspargine, Glycine, Proline, Alanine, Phenylalanine, Tyrosine, Leucine, Lysine, Arginine Detection technique: UV, LC/MS, ELSD/CAD

Method Parameters

Column	Primesep C, 4.6×150 mm, 5 µm, 100 Å
Mobile Phase	MeCN – 15%
Buffer	AmAc pH 5.0- 15 mM
Flow Rate	1.0 mL/min
Detection	ELSD

Quelle: https://sielc.com/Application-HPLC-Separation-of-Lysine-and-Arginine-from-Other-Amino-Acids