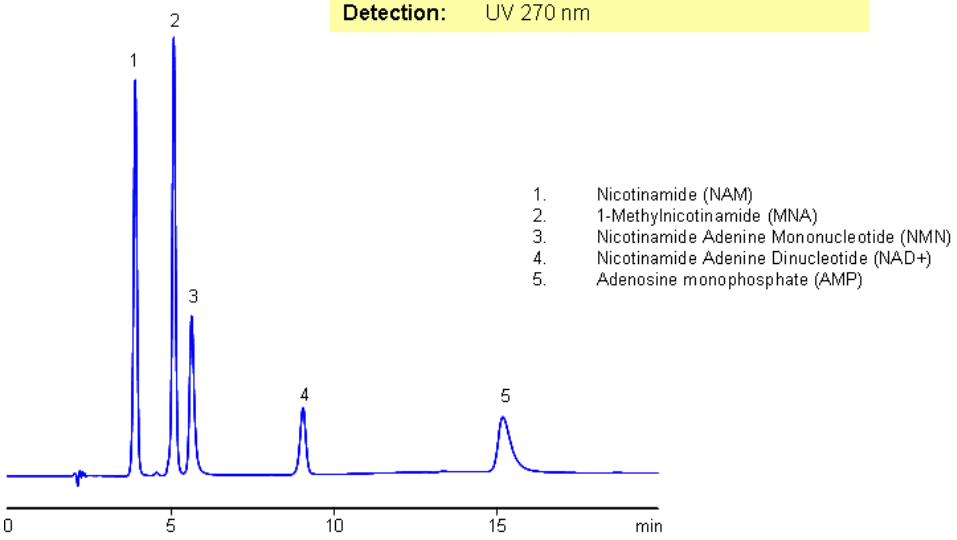
Separation of Nicotinamide and Related Substances

Column:	**Obelisc R**
Size:	4.6 x 150 mm
Mobile phase:	MeCN gradient 5% to 20% in 10 min , 10 min hold, AmAc pH 5.0 gradient from 5 mM to 80 mM in 10 min, 10 min hold
Flow:	1.0 mL/min
Detection:	UV 270 nm



A complex mixture of nicotinamide and related impurities was separated on Obelisc R mixed-mode column. Nicotinamide, methylnicotinamide, nicotinamide adenine mononucleotide, nicotinamide adenine dinucleotide, and adenosine monophosphate were baseline resolved in a 15 minute long method. This mixed-mode approach can be used for analysis of other nucleotides. Obelisc R trimodal column separates this complex mixture based on reversed-phase, cation-exchange and anion-exchange mechanisms. Retention is controlled by amount of ACN, buffer concentration and buffer pH. Additional selectivity can be gained by exploring various buffers within the same pH

SIELC has developed the Obelisc™ columns, which are mixed-mode and utilize Liquid Separation Cell technology (LiSC™). These cost-effective columns are the first of their kind to be commercially available and can replace multiple HPLC columns, including reversed-phase (RP), AQ-type reversed-phase, polar-embedded group RP columns, normal-phase, cation-exchange, anion-exchange, ion-exclusion, and HILIC (Hydrophilic Interaction Liquid Chromatography) columns. By controlling just three orthogonal method parameters - buffer concentration, buffer pH, and organic modifier concentration - users can adjust the column properties with pinpoint precision to separate complex mixtures.

Method Parameters

Detection	ELSD Detection

Quelle: https://sielc.com/Application-Separation-of-Nicotinamide-and-Related-Substances