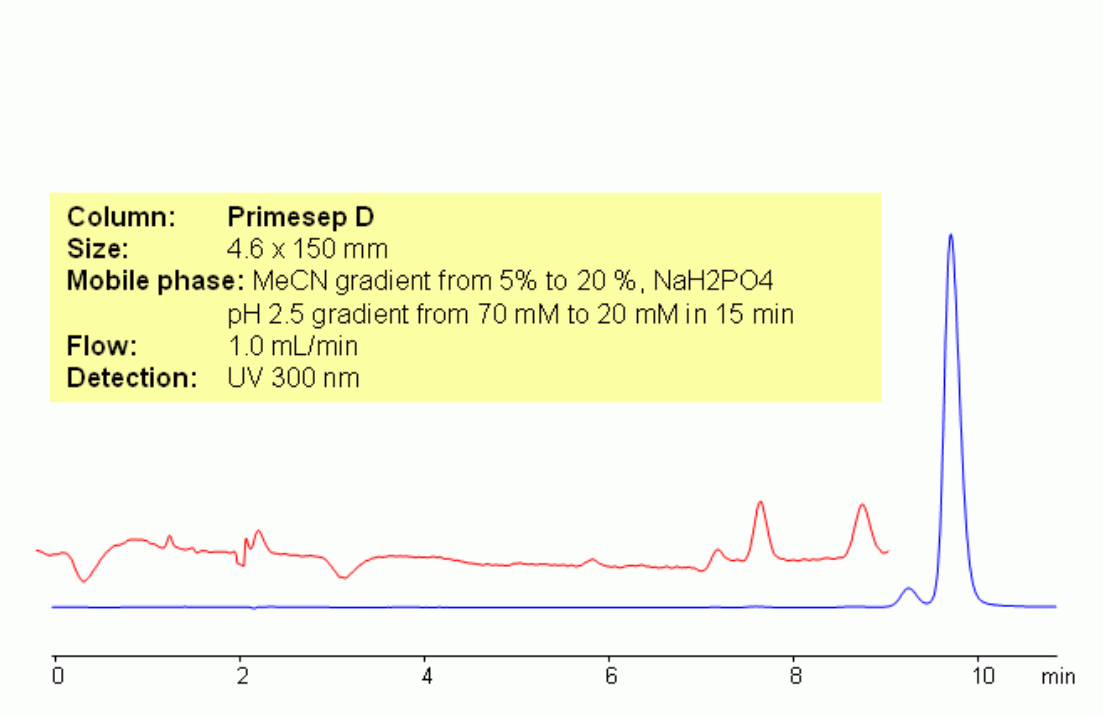
Analysis of Methylene Blue Purity in Reversed-Phase Cation-Exchange and Reversed-Phase Cation-Exclusion Modes



Methylene blue is a heterocyclic dye with a wide range of use in biology and chemistry. Purity of dyes rarely exceed 70% and separation of methylene blue and related impurities is required. Two alternative methods for purity analysis were developed on Primesep C and Primesep D mixed-mode HPLC columns. Primesep C is a reversed-phase cation-exchange (anion-exclusion column) column and Primesep D is reversed-phase anion-exchange (cation-exclusion) column. Various buffers can be used for the method. Depending on the buffer, method can be compatible with UV, LC/MS and prep chromatography. Method can be used for prep separation of methylene blue and related impurities.

Method Parameters

Column	Primesep C, 4.6×150 mm, 5 µm, 100 Å
Mobile Phase	MeCN – 35%
Buffer	AmFm pH 3.5 – 35 mM
Flow Rate	1.0 mL/min
Detection	UV, 300 nm

Quelle: https://sielc.com/Application-Analysis-of-Methylene-Blue-Purity-in-Reversed-Phase-Cation-Exchange-and-Reversed-Phase-Cation-Exclusion-Modes