

Separation of Aliphatic Amines by Capillary Electrophoresis. - INTERNAL

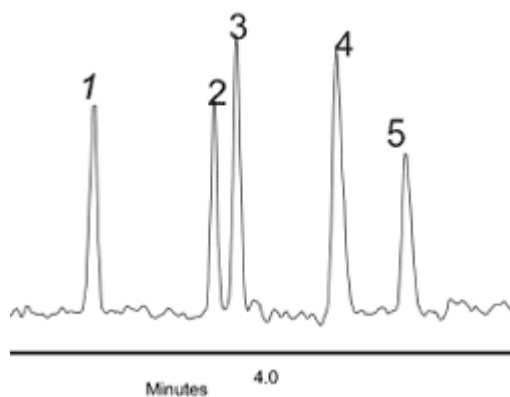
INTERNAL ONLY - THIS ITEM IS DISCONTINUED

Fast - Easy - Reliable - Useful

Although “aliphatic amines” irritate the mucous membranes, they are commonly used as raw materials in the manufacture of pharmaceuticals, insecticides, herbicides, fungicides, polymers, corrosion inhibitors in steam boilers, and as accelerators for making surfactants and rubber. Now you can use CE to analyze these compounds using the well documented CELixir™ “Dynamic Coating Technology” for robust, reliable results and with less exposure to these toxic molecules.

Method:

Using a CELixir-plus™ kit for Cations and aliphatic amines, a Beckman P/ACE MDQ™ CE System and a 75µm ID bare fused silica capillary, the analysis and separation of five amines is easily achieved by following the instruction manual provided with every kit. The sample was hydro-dynamically (pressure) injected for 5 seconds followed by a 1 second post injection water plug. The capillary was first conditioned using the procedure stated in the supplied manual. The separation run time was completed in less than 6 minutes. After the sample injection and analysis, the capillary was cleaned with LiOH (supplied), but NaOH can be used as an option.



Peaks:

Trimethylamine
Morpholine
Iso-propylamines
Terbutylamine
Cyclohexylamine

Method Conditions:

Voltage: 30kV
Capillary: MicroSolvCE™ Bare Fused Silica, 75µm x 60cm (50cm to detector)
Injection: 5 sec pressure, 1 sec post injection water plug
Run Buffer: CELixir-plus™ Accelerator Buffer (supplied)
Detection: Indirect UV 230nm
Polarity: Normal

Discussion:

Aliphatic amines do not absorb sufficient UV energy for direct photometric detection in HPLC and CE analysis. Using the indirect detection mode in CE and the CELixir-plus™ kit makes it easy to separate and analyze these compounds. (Negative peaks are automatically converted to “normal” peaks with instrument software.) All the buffer solutions are pre-made and everything required is supplied in the kit; no mixing or weighing. The CELixir-plus™ kit makes analyzing aliphatic amines easy, fast, reliable and reproducible.

Attachments

celixirplus_sep2.pdf 1.7 [MbDownload File](#)