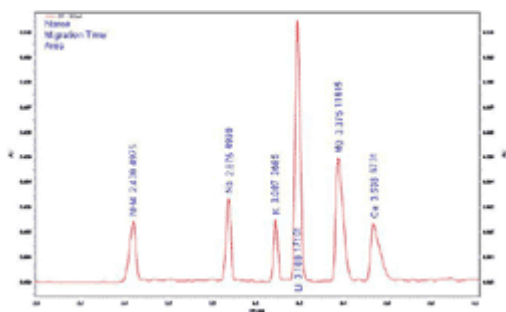


Separation of Alkali and Alkaline Earth Metals Test Mixture by Capillary Electrophoresis. - INTERNAL

INTERNAL ONLY - THIS ITEM IS DISCONTINUED

CElixir-plus™ kit for Cations and aliphatic amines is a valuable tool and preferable to traditional methods to separate these compounds such as Ion Chromatography. Easy to use and reliable, save time when buffers are pre-made and quality control tested.



Peaks:

NH₄, Na, K, Li, Mg, Ca (approximately 10mg/L)

Method Conditions:

Voltage: 30kV

Capillary: MicroSolvCE™ Bare Fused Silica, 75µm x 60cm

Injection: 5 sec @0.5psi

Run Buffer: CElixir-plus™ kit

Detection: Indirect UV 200nm

Polarity: Normal

Instrument: Beckman® P/ACE MDQ™

Method:

Using a Beckman P/ACE MDQ and a 75µm bare fused silica capillary, the earth metals are easily and reproducibly separated using “inverse detection” mode. Buffers are pre-made and supplied in a kit as CElixir-plus™. To avoid carry-over of Sodium, the capillary should be rinsed

between runs with a Lithium solution. If Lithium is an analyte of interest, NaOH solution should be used instead.

Discussion and Rationale on using Inverse Detection:

CE instruments are usually equipped with a UV detector, the problem is that the analyzed Cations do not absorb sufficient amount of the UV energy to allow photometric detection. For this reason, an indirect detection technique is used where the supplied buffers (CElixir-plus™) absorbs the UV and the analytes appear as negative peaks. The software of the CE instruments will invert the signal to obtain a normal looking e-gram.

Attachments

celixirplus_sep.pdf 19 Kb [Download File](#)