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Application of Capillary Electrophoresis for the Analysis of Metal ions in Multimin and Mineral max

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Abstract : Capillary electrophoresis (CE) is a method of choice for analysis of cations in different samples using indirect UV detection. The determination of metal ions can be studied by employing several electrolyte systems with indirect detection at various wavelengths. The indirect detection at 214 nm was performed and resulted in good separation of metal ions with glycolic acid-imidazole background electrolyte (BGE). The method was developed for the identification of metal ions in standard samples and then applied for the analysis of metal ions in real samples. Two samples (Multimin and Mineral max) have been collected from various locations, analysed and compared. Four metal ions (Na⁺, Mg²⁺, Mn²⁺ and Cu²⁺) were identified. These metals are useful for the animal protection.

Keywords: Water analysis; Background electrolyte composition; Complexation; Cations.

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