Rapid Method for Determining Fluoride in Vegetation Using an Ion-selective Electrode

Fluoride was extracted from dried vegetation by stirring with 0.1 N perchloric acid for 20 min at 20 °C. The fluoride content was determined in this extract (pH 1) using the method of standard additions, thus eliminating the need to de-complex fluoride prior to analysis. The presence of up to 2.0% of silicon, 0.06% of iron, 0.1% of aluminium, 0.7% of magnesium and 1.2% of calcium did not result in any interferences and recoveries of 98–102% were obtained. The fluoride contents of standard samples determined by this method were highly correlated ($r = 0.999$) with those obtained by reference methods over the range 4–2000 $\mu g\ g^{-1}$ of fluoride in the dry matter.

Keywords: *Fluoride determination*; *fluoride ion-selective electrode*; *fluoride in vegetation*; *perchloric acid extraction*

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Analyst, 1979, **104**, 545–551.

Automated Catalytic Method for the Routine Determination of Molybdenum in Plant Material

Molybdenum is determined by its catalytic effect on the liberation of iodine from iodide by hydrogen peroxide. The detection limit (twice the standard deviation of the blank) is 0.01 p.p.m. in plant material, using a 0.25-g sample. Interference from iron is eliminated by preventing any reduction to iron(II) before complexation with fluoride. High concentrations of salts, other metals and phosphate do not interfere, and agreement with established routine methods is very good.

Keywords: *Molybdenum determination*; *plant material analysis*; *automated catalytic analysis*

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Analyst, 1979, **104**, 552–559.

Determination of the Prostaglandin $F_{2\alpha}$ Content of Pharmaceutical Preparations with Triangle Programmed Bromimetric Titration in Flowing Solutions

A survey of the different methods for prostaglandin analysis is given. The use of bromine as a reagent for the accurate determination of prostaglandin $F_{2\alpha}$ is indicated from its chemical structure. Several reasons, however, hinder the use of classical bromimetry.

In this paper the application of a new analytical method, the so-called triangle programmed titration technique, is described for prostaglandin analysis. This method permits the simple and effective use of bromine as a reagent by performing the titration in a continuous-flow system. The reagent is generated coulometrically during the titration.

Methods are described for the determination of the prostaglandin $F_{2\alpha}$ content of different pharmaceutical preparations.

Keywords: *Prostaglandin $F_{2\alpha}$ determination*; *coulometry*; *biamperometry*; *triangle programmed bromimetric titration*; *flow-through analysis*

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Determination of Phenindione Using Organic Brominating Agents

Short Paper

Keywords: *Phenindione determination*; *bromination*; *titrimetry*

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Analyst, 1979, **104**, 566–568.

Application of Difference Spectrophotometry to the Determination of Dipyrone

Short Paper

Keywords: *Dipyrone determination*; *difference spectrophotometry*

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Analyst, 1979, **104**, 568–572.

Spectrophotometric Determination of Cobalt(II) with 2,2′-Pyridil Bis(2-quinolylhydrazone)

Short Paper

Keywords: *2,2′-Pyridil bis-2(quinolylhydrazone) reagent*; *cobalt determination*; *alloy analysis*; *spectrophotometry*

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Analyst, 1979, **104**, 572–575.

Determination of Osmium(VIII) Alone or in Binary Mixtures with Some Group VIII Cations by Potentiometric Titration of Iodide

Short Paper

Keywords: *Osmium(VIII) determination*; *potentiometric titration*; *silver electrode*

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Analyst, 1979, **104**, 576–579.

Gas Chromatographic - Mass Spectrometric Analysis of Polyethylene Bottle Packed Intravenous Solutions Contaminated with *N*-Ethylaniline from the Rubber Part of the Two-component Closure

Communication

Keywords: *N-Ethylaniline migration*; *rubber disc*; *polyethylene plastics*; *intravenous solutions*; *gas chromatography - mass spectrometry*

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Analyst, 1979, **104**, 580–582.

Luminescence Characteristics of Tubocurarine Chloride

Communication

Keywords: *Tubocurarine chloride*; *luminescence characteristics*

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