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## Spectrometric Determination of Various Metals by High-Frequency Plasma Torch\*

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### Abstract

Several analytical conditions and detection limits of various metal elements were examined with regard to the determination of these elements by photoelectric spectrometry in the combination of high-frequency plasma torch apparatus and Ebert-type grating spectrometer (GE-340), using nitrogen as the carrier gas. All the calibration curves for the elements showed good linearity and standard deviations of calcium, zinc, tin, lead, and bismuth were in the range of 1.0–3.2%. It was found that, among the various elements, aluminium, zinc, tungsten, and lead, which are difficult to be determined by flame-spectrometric analysis, can be determined with good sensitivity and high precision by the present method.

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