

Analytical application of the voltammetric method for the determination of platinum(IV)

Marija GEORGIEVA

*Institute of Chemistry, Faculty of Science, St. Cyril & Methodius University, Skopje,
Republic of Macedonia*

Abstract A highly sensitive voltammetric method for the determination of platinum(IV) was developed. The method is based on the formation of the complex of platinum (IV) with dimethylglyoxime. The adsorptive accumulation of platinum (IV) on mercury electrode was evaluated for stripping voltammetry with respect to different parameters. The most appropriate supporting electrolyte was 0.1 mol/L acetate buffer between pH 4.0 and 5. All experimental parameters of importance were optimized to yield a highly linear response and good precision.

The method was applied to the determination of Pt traces in different samples and the recovery from inorganic materials was investigated also.

Keywords: Adsorptive stripping voltammetry, Platinum, Dimethylglyoxime, Determination
