P2-28

DETERMINATION OF VITAMINS BY CHEMILUMINESCENCE

Meropi Timotheou-Potamia, Antony Calokerinos

University of Athens, Department of Chemistry, Laboratory of Analytical Chemistry, Panepistimiopolis, 157 71 Athens, GREECE
timotheou@chem.uoa.gr, calokerinos@chem.uoa.gr

The determination of vitamins by chemiluminescence is a challenge to research due to the intriguing properties of the compounds. Very few vitamins have been determined by direct CL. One typical example is the determination of thiamine by the effect of hexacyanoferrate(III) in alkaline medium [1]. Energy transfer CL has been investigated for the measurement of Vitamin B2 [2].

Vitamin C (1.00 – 50.0 mg/L) has been determined by the chemiluminogenic action of potassium permanganate in polyphosphoric acid. The procedure has been applied successfully to a variety of samples.

Tocopherol (5.00 – 80.0 mg/L) has also been determined by the action of hexacyanoferrate (III) in alkaline medium. Both procedures will be presented and discussed.

References
1. Grekas, N. and Calokerinos, A.C., Talanta, 1990, 37, 1043-1048