Voltammetric Determination of Aluminium in Haemodialysis Concentrates Using the Adsorption of the A1(III)-1,2-Dihydroxyantraquinone-3-Sulphonic Acid Complex in Presence of Calcium

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This paper describes a method for the quantitative determination of aluminium in haemodialysis concentrates, based on the adsorption on a static mercury drop electrode of the Al-1,2 dihydroxyantraquinone-3-sulphonic acid complex. The signal was notably increased in presence of calcium. The electrolysis was carried out at -0.900 V. After 60 sec the aluminium contents were measured by differential pulse voltammetry. In these conditions aluminium can be determined in the range 0.65 - 30 ng/ml with a detection limit (3?) of 0.20 ng/ml. The relative standard deviation was in all instances less than 2.1 %.