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Computer-Controlled Potentiometry for The Assay of Fluoride Ion in Biological Samples Using Ion-Selective Electrode

Computer-Controlled Potentiometry for The Assay of Fluoride Ion in Biological Samples Using Ion-Selective Electrode

Abstract

A computer-controlled potentiometric method for the determination of fluoride in human plasma and saliva is presented. The method is based not only on the automated calibration but also multiple standard addition technique using a fluoride ion selective electrode. A computer program to accomplish this calculation is given by EDDIS of WsA (WÄ¼rburg Software for Analysis). The accuracy and precision of both techniques is demonstrated by experiments on fluoride determination in human plasma and saliva. Both techniques give better results for the assay of fluoride above 20 ng/ml. Below this concentration, the multiple standard addition technique give better accuracy and precision.

Keyword : Computer, controlled, potentiometry, ion-selective, electrode, fluoride, ,

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