

Differential electrolytic potentiometric determination of some amino acids in dosage forms.

Al-Ghannam, Sheikha M.; Abulkibash, Abdalla M. S.; Al-Olyyan, Abeer M. Department of Chemistry, Girls College of Science, Dammam, Saudi Arabia. Journal of AOAC International (2004), 87(3), 671-676. Publisher: AOAC International, CODEN: JAINEE ISSN: 1060-3271. Journal written in English. CAN 141:111707 AN 2004:573734 CAPLUS (Copyright (C) 2008 ACS on SciFinder (R))

Abstract

The application of direct-current differential electrolytic potentiometry to the non-aqueous titration of amino acids was investigated. The basic character of amino acids in acetic acid was enhanced to permit their direct titration with perchloric acid. A pair of antimony electrodes was used as an indicating system. The shapes of the titration curves obtained were almost symmetric with sharp peaks. The optimum current density for those titrations was found to be 1-2 $\mu\text{A}/\text{cm}^2$. The procedure was applied successfully to the determination of certain amino acids in drug formulations, and the results were favorably compared statistically with those obtained by official methods.