

Coulometric determination of purine alkaloid series with electrogenerated chlorine

Chernysheva N., Abdullin I., Budnikov G.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

In acid solution, caffeine, theobromine, and theophylline are rapidly and quantitatively oxidized with electrogenerated chlorine in a stoichiometric ratio of 2 : 5 to give alloxan and urea. Procedures for the coulometric determination of microgram amounts of caffeine, theophylline, and theobromine in model solutions, caffeine in tea and coffee samples, and caffeine and theophylline in some pharmaceutical preparations were developed. © 2001 MAIK "Nauka/Interperiodica".
