

Abstract

A derivatization reaction, based on a copulation reaction of diazonium salt of an analyte with a reagent (1-aminonaphthalene or NEDA) producing colour, spectrophotometrically detectable product, has been used for determination of two analytes (procain hydrochloride, sulfamethoxazole) containing amino group in the molecule. The conditions of batch spectrophotometric determination were studied. It was found, that the batch determination is applicable only for procain hydrochloride analysis, because sulfamethoxazole gives time-unstable colour product. FIA arrangement was proposed and effects of selected parameters were optimized using two levels factorial design. The calibration dependences were measured for both analysis with both reagents, and subsequently were applied on determination of analytes in medical forms.

Key words: diazotization, flow injection analysis, procaine, spectrophotometry, sulfamethoxazole