

عنوان مقاله:

Determination of Erythrosine in Food Samples by CPE-Scanometry as a New Method And Comparison with Spectrophotometric Results

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خلاصه مقاله:

In this study, the trace amounts of erythrosine, as a food dye is determined by cloud point extraction-scanometry (CPE-Scanometry) as a new, facile, available, fast, sensitive, and low cost method. The method is based on the CPE of analyte from aqueous solution, diluting the extracted surfactant-rich phase with ethanol, transfer to Plexiglas® cell and scanning the cells containing the analyte solution with a scanner and measuring the RGB parameters with software written in visual basic (VB6) media. The parameters such as pH of the system, the concentration of the surfactant, equilibration temperature and time were optimized. In addition, the effects of some foreign species were investigated. The linear range for the proposed method and CPE-Spectrophotometry are $0.067-5.330 \mu\text{g ml}^{-1}$ and $0.030-3.000 \mu\text{g ml}^{-1}$, respectively. The results of the proposed method were comparable with those of CPE-Spectrophotometry. The method was successfully applied to the determination of erythrosine in food samples

کلمات کلیدی:

CPE-Scanometry, Erythrosine, Plexiglas® cell, RGB parameters

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