Mini Review

Electroanalytical Methods for Determination of Sunset Yellow— a Review

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The review highlights the electroanalytical methods used for the determination of the artificial dye Sunset Yellow, one of the most frequently used azo-dyes, with a very wide field of the application during the last two decades. As azo-dyes may have detrimental effects on living organisms, their content in food must be strictly controlled. Despite other analytical methods for determination of azo-dyes, the electroanalytical methods, especially voltammetric methods, offer many other advantages besides high sensitivity, selectivity, and reproducibility – e.g., less time for sample preparation and determination, low investment and running cost, electrode miniaturization and modifications, as well as use of eco-friendly materials. This critical review focuses on the electrode materials and their modifications since they are the deciding factor for a successful voltammetric determination of Sunset Yellow. In addition to this, the reaction mechanisms for determination and analytical performance are also presented in the paper.

Keywords: Azo-dyes, Sunset Yellow, Voltammetric methods, Modified electrodes, In food analysis

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