

A rapid HPLC method for the analysis of water soluble synthetic pigments in soft drinks

Elena DIACU* and Cornelia Petronela ENE

*Department of Analytical Chemistry, Faculty of Applied Chemistry and Materials Science,
University "Politehnica" of Bucharest, 1, Polizu, Bucharest, 011061, Romania*

Abstract The goal of the present contribution was the development of a liquid chromatographic method for the determination of water soluble synthetic pigments in soft drinks. The method consists in the direct injection of the sample (after filtration) in a HPLC system with diode array detection on a reverse phase column. The HPLC method was validated by specific performance criteria, such as the linearity of the calibration curve, recovery percentage and estimation of the measurement uncertainty. The results obtained for the determination of two of the most used synthetic colorants, FD&C Yellow 5 and Orange Yellow S on real soft drink samples demonstrated that the described HPLC method is a useful technique for analyzing synthetic dyes, rapid and simple, with an appropriate uncertainty of the measurements.

Keywords: synthetic pigments, FD&C Yellow 5, Orange Yellow S, HPLC, soft drinks analysis.
