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New Flow Injection Designed Unit forthe Determination of Dapsonein some Pharmaceutical Products

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Abstract:A new, simple and rapid method is reported for the accurate and precision spectrophotometric determination ofDapsone using a new flow injection designed unit. The method included the designing a new valve. The proposed method is based on the reaction between Dapson and 1, 2-naphthoquine-4-sulfonate(NQS) at alkaline medium to form colored adduct, exhibiting maximum absorption (λ_{max}) at 485 nm. Thevarious parameters, physical and chemical, affecting the determination have been investigated such as flow rate, reaction coil, volume of reagent (NQS), volume of sample, pH and concentration of (NQS). The linear regression equation of the calibration graph is A=0.0016+0.0708C (µg/mL), with a linear regression correlation coefficient of 0.9989, the detection limit is 5 µg/mL .The method has been successfully applied to the determination of Dapsone in pharmaceutical formulation.
Key words: Flow injection analysis, Dapsone, 1, 2-naphthoquine-4-sulfonate, pharmaceutical formulation.

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