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Pharmaceutical Analytical Chemistry: Open Access

Editorial

The Quantitative Application of the Flow Injection Analysis

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INTRODUCTION

FIA (Flow Injection Analysis) is a widely used technique in analyzing chemical values. The FIA is an injectable solution for a different sample solution in an uninterrupted flow stream with the following analysis acquisition.

A method based on the injection of sample fluid into a continuous flow that does not work in the corresponding fluid. The sample is injected to create a space, which is then transferred to a detector that continuously records the absorption, electrode strength or other portable parameters, which continue to change due to the sample component of the flow cell. The FIA allows for rapid, consistent analysis of an unlimited number of samples.

Flow injection studies were used to analyze a variety of samples, including environmental, medical, agricultural, industrial and pharmaceutical samples. Other analyzes include natural and clinical samples, which are the subject of this section. Injectable flow injection methods for cationic, anionic and molecular contaminants in wastewater, freshwater, groundwater and seawater have been developed.

The basic components of the flow injection analysis include the network transmission channel and reagent flow, the sample injection system in the network company stream, and the network signal monitoring monitor.

Flow injection analysis (FIA) is an automatic method in which a sample (analyte) injects into a continuous flow of a network company solution, which is mixed with other flow solutions (reagents) before reaching the detector. This process is straightforward with very low sample and reagent consumption and high sample waves. In the case of sucrose, each food sample is analyzed twice as much for its content in reducing sugar: before and after sucrose conversion. The difference between the two results reflects the sucrose content.

Three default methods of FIA have been proposed to determine the reduction of sugar in beverages based on previous responses (picric acid method, Cu method (II) –neocuproine, and Nelson-Somogyi method). The first reflects the configuration of two channels, with the pH adjusted by NaOH at the junction. The same quantity is used for the Cu (II) –neocuproine method, while the Nelson-Somogyi method automation uses a deferred FIA system, in which the sample flows continuously and is mixed with the NaOH distribution. In all cases, the reactor in which the chemical reaction takes place is immersed in a thermostatic bath at the appropriate temperature. Additionally, and in the case of colored samples, the use of a dialysis unit (inserted between the injection valve and the reactor) allows to avoid the disturbing color emission of the coal.

CONFLICT OF INTEREST

We have no conflict of interests to disclose and the manuscript has been read and approved by all named authors.

ACKNOWLEDGMENTS

The Authors are very thankful and honored to publish this article in the respective Journal and are also very great full to the reviewers for their positive response to this article publication.

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Received: October 15, 2021**; Accepted:** October 29, 2021**; Published:** November 05, 2021

Citation: Alfonsin V (2021) The Quantitative Application of the Flow Injection Analysis: Pharm Anal Chem Open Access.6:4.e154