

QUIKCHEM 8500 FLOW INJECTION ANALYSIS SYSTEM

A Performance Advantage from the Leaders in Continuous Flow Analysis



LACHAT
INSTRUMENTS
A Hach Company Brand



UNITED FOR WATER QUALITY

QUIKCHEM 8500

Flow Injection Analysis System

PROVEN METHOD PERFORMANCE WITH HIGHEST PRODUCTIVITY

LACHAT's QUIKCHEM 8500 Flow Injection Analysis System features high sample throughput and simple but rapid method changeover. The QUIKCHEM 8500 maximises productivity in determining ionic species in a variety of sample types, from sub-ppb to percent concentrations. With over 400 methods for environmental, agronomic and industrial applications, including ISO accepted methods, the QUIKCHEM 8500 will satisfy all your analytical requirements.

IMPROVEMENTS SIMPLIFY USE, SPEED ANALYSIS

The QUIKCHEM 8500 has the following benefits:

- Prepared guaranteed LACHAT reagents, for documented accepted QUIKCHEM methods.
- Automatic leak detection/failure alert system – notifies operator when a leak occurs.
- Software-controlled heater.
- High performance injection valve.
- Simplified cable and tubing management.

OVER 400 METHOD VARIATIONS AVAILABLE

- Methods complying with USEPA, ISO, and DIN standards.
- Simple to run in-line preparation methods.

MAXIMUM PRODUCTIVITY BASED ON FLOW INJECTION ANALYSIS (FIA)

The QUIKCHEM 8500 utilizes reliable, accurate FIA technology. Scientists trying to process large numbers of samples initially developed FIA when they became frustrated with productivity delays caused by segmented flow analysers (SFA). These initial innovations became the building blocks of Flow Injection Analysis:

- Elimination of bubbles from the analytical stream.
- Reduction of the inner diameter of the reactor tubing.
- Precise injection of samples into the analytical stream.

The result was an analysis system that produced analytical peaks with very rapid rise and recovery times and provided complete inter-sample washout, preventing carryover between samples. As the technology evolved, many other aspects of FIA were discovered that have become uniquely



beneficial to routine analytical laboratories. FIA productivity characteristics include:

- Fast startup and shutdown (approximately five minutes) times allow for rapid method changeover.
- Rapid analysis times (typically 20 to 60 seconds) allow samples to be analysed in near real-time, while data quality can be monitored and controlled during the analysis.

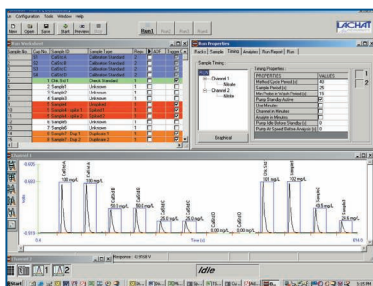
- High sample throughput (typically 60 to 120 samples per hour).
- Broad working range (sub-ppb to percents).
- Wide dynamic range (typically two to three decades).

As a result of these characteristics, analysts now enjoy time savings with improved accuracy and quality control.

Improve Operations with QUIKCHEM 8500-Compatible Products

OMNION 3.0

An easy-to-use, but tremendously powerful and versatile software, Omnion 3.0 significantly improves the operation of the QUIKCHEM 8500 Automated Analyser.



This 32-bit software system is entirely compatible with Windows XP and Windows 2000.

ASX SERIES AUTOSAMPLERS

To accommodate large sample loads, the ASX-500 Series sampler offers up to 360 sample and 16 bulk standard positions for both calibration and QC standards. The integral wash bath ensures complete washout of the sampling line to prevent inter-sample carryover and cross-contamination. To perform automated ion analysis in quantities of less than 50 samples per batch, analysts choose the ASX-400 Series sampler.

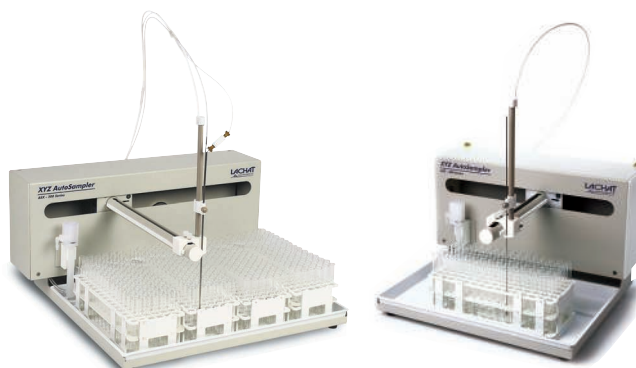
PRECISION DILUTOR SYSTEM

The PDS200 automates the preparation of working standards from a stock standard, estimates the concentration of off-scale samples, performs the required dilution, and re-runs the sample—automatically with no operator intervention. The PDS200 is compatible only with the ASX-500 sampler.



PREPARED REAGENTS

Save time and money, and ensure the performance of your instruments with LACHAT's new Prepared Reagents.



QUIKCHEM 8500

Specifications*

Analysis Methods

FIA (Flow Injection Analysis)

Channel

Max. 4

Light Source

Tungsten Halogen Lamp

Detector

Dual beam photometer (340-880 nm)

A/D Converter

24 bit

Heating Unit

25-160 °C

Valve

High-performance 6 port injection sample valve

Filter Type

Interference Filter

Reagent Pump

12 and 16 positions controlled by S/W

Dilutor

Dilution Factor 1.6-4000 steps

Accuracy and Reproducibility

0.5 %

Mixing Coil

Teflon Tubing

Flow Cell

10 mm path length

Dimensions (Width x depth x height)

4 channel unit: 70 x 61 x 25 cm (27.60 x 24.03 x 9.90 in)

2 channel unit: 70 x 41 x 25 cm (27.60 x 16.01 x 9.90 in)

Peak Measurement

Area/Height

Tube I.D

0.8 mm/0.5 mm

Injected Sample Volume

2 µl-250 µl

Sample Throughput

90 tests/hour/channel

Data Quality Control

Real time closed-loop control of data quality

Hardware

PC not included with system (optionally available)

Recommended Operating System

Windows XP, 2000, NT

Software

32-bit Omnion 3.0

Data Quality Management enabled

LIMS import/export capabilities

Approvals

NORTH AMERICAN STANDARDS

Safety:

UL 61010A-1 and CSA C22.2 No. 1010.1

by ETL (cETLus safety mark)

EUROPEAN STANDARDS (CE)

Safety:

EN 61010-1 by ITS

EMC:

EN 61326: 98 per 89/336/EEC by HACH Company

*Subject to change without notice.

HACH LANGE GMBH
Willstaetterstrasse 11
D-40549 Duesseldorf
Tel. +49 (0)211 5288-0
Fax +49 (0)211 5288-143
info@hach-lange.de
www.hach-lange.com



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