

Spectroscopy and fluorescence

Flames, formats and photometry.

Photometer 8000

Palintest www.palintest.com

Photometry made easy

The Palintest Photometer 8000 is designed for convenient use in labs carrying out water quality testing. Covering the full range of tests for clean and wastewater, it is compatible with all Palintest tablet and liquid photometer tests. With no moving parts, all measurements are made instantly. Compatible Palintest Tubetests reagent tubes are coded to provide all the instrument needs for wavelength range and calibration set-up and analysis. The instrument recognizes the tube method and measurement range and automatically sets up for a measurement. The multi-size cell holder adjusts automatically to all reagent tubes from 13 mm to 20 mm diameter with no inserts or adaptors required. The system memory allows up to 1000 results to be stored on-board and selectively or batch uploaded to LIMS or other computer, or each result can be sent as it is collected.

PCA-96

Guava Technologies

www.guavatechnologies.com

Compact single-cell screening

The PCA-96 AFP (Auto-Fluorescing Protein) system is a blue-laser, micro-volume cell analysis instrument that can be operated on the benchtop to screen single cells for green fluorescent protein expression using an automated 96-well plate format. The Guava system can be used to detect cells stained with both FITC-conjugated and PE-conjugated antibodies. It can be mastered with less than a day's training and requires only microvolumes of cells.

AA-6300

Shimadzu www.shimadzu.com

It's on the beam

Shimadzu's AA-6300 atomic absorption spectrophotometer features a dynamic beam management system to ensure long-term baseline stability with low noise levels. It includes a dual detector system coupled with a



Water features: the Palintest 8000.

dual background correction function that maintains maximum sensitivity and accurate background at all wavelengths. The result is a detection capability (direct determination) of 0.1 p.p.m. Pb with flame and 0.3 p.p.b. Pb in furnace mode. The switch from flame to furnace operation can be performed quickly and without tools. Burner height is automatically set at optimal level for each element and matrix. WizAard software includes electronic signature, user administration and audit trail to ensure compliance with security regulations

UV WinLab version 4.00

PerkinElmer www.perkinelmer.com

Lambda series beefed up with new software

Lambda series spectrometers are now equipped with UV WinLab 4.00 software to simplify UV/Vis analysis. The software mimics the work-flow of a busy laboratory, guiding the user through simple steps for method development, results analysis and reporting functions. Built-in, password-protected access locks methods and prevents unauthorized users from changing method parameters. The UV WinLab 4.00 program archives all results and methods in a secure, encrypted relational database for easy retrieval and review. A range of intelligent querying options transforms data from a collection of individual results into useable knowledge. This speeds up the decision-making process by identifying potential problems before they occur. UV WinLab 4.00 is also available as an upgrade for the Lambda 25/35/45 and 20/40 instruments.

Ultra Evolution

Tecan www.tecan.com

Versatile detection platform

The Ultra Evolution detection platform from Tecan measures absorbance, fluorescence and luminescence. An optional fluorescence lifetime module for samples in microplates, which may be added as an upgrade, provides

an additional solution when assay results are hindered by compound auto-fluorescence. The instrument is suitable for use by target identification or lead discovery groups, assay development teams, high-throughput screening facilities, secondary and confirmatory screening groups, or contract research/screening companies

LALS detection guide

Viscotek www.viscotek.com

Get the lowdown on molecular weight

Viscotek has produced a technical booklet that explores the principles of measurement and operation of the low angle light scattering (LALS) detector. Unlike multi-angle light scattering techniques that can only determine molecular weight by extrapolation, LALS measures molecular weight directly, providing direct determination of absolute molecular weights of polymers and proteins. The booklet introduces the theory of light scattering detection, explains the mathematical proof behind it and discusses the importance of the technique in scientific research, with illustrated examples of applications.

OMNIC-format libraries

Thermo Electron www.thermo.com

Expanded range of reference material

Thermo Electron has added OMNIC-format libraries to its portfolio of spectral libraries, all of which can be searched with the company's Spectral ID search program. Spectral libraries are searchable databases used by scientists conducting materials identification and research in a range of industries, including plastics and polymers, chemicals and petrochemicals, semiconductors, food and beverage, forensics and pharmaceuticals. By matching the pattern of a specific spectrum to the reference spectra stored in the library, researchers can solve analytical problems involving quality control issues, chemical structure determination, formulation analyses and other areas. More than 50 FT-IR and Raman spectra collections are part of Thermo's portfolio, which also includes Chemical Concepts, John Wiley and NIST. The OMNIC libraries contain some of the largest collections of high-quality FT-IR and Raman reference spectra and include the Aldrich condense phase IR and Raman libraries. Most are available in high-resolution format, with spectra measured at 4 wavenumber (4 cm^{-1}) optical resolution and with data values expressed in 16-bit representation.

These notes are compiled in the Nature office from information provided by the manufacturers.



Shimadzu AA-6300: flame and furnace operation.