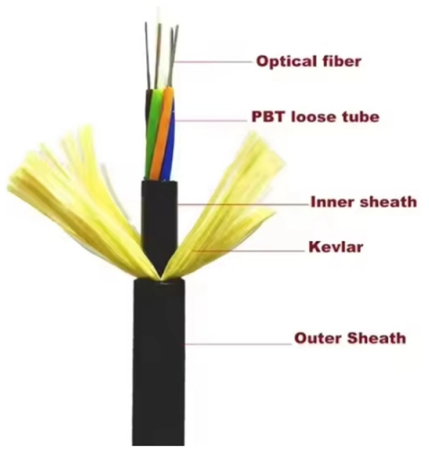
Fully Automated Fluorescence Spectrometer



AI Overview

An automated fluorescence spectrometer is a high-performance instrument that measures fluorescence and phosphorescence with minimal user intervention, combining advanced optics, software control, and automated sample handling for rapid, reproducible analysis.OverviewAutomated fluorescence spectrometers, also known as fluorometers or spectrofluorometers, are designed to detect and quantify fluorescence signals from samples with high sensitivity and precision. These instruments are widely used in life sciences, biotechnology, environmental monitoring, materials research, and chemical analysis. Automation enhances throughput, reduces human error, and allows for routine or high-volume measurements without constant operator supervision .Key FeaturesAutomated Sample Handling: Many systems include microplate readers, automated polarizers, and batch scanning capabilities, enabling high-throughput analysis and consistent results .Multiple Measurement Modes: Modern spectrometers can switch between fluorescence, phosphorescence, chemiluminescence, bioluminescence, and time-resolved measurements without manual adjustments .High Sensitivity and Accuracy: Instruments use photon-counting detectors, xenon flash lamps, or pulsed light sources to achieve precise detection across a wide spectral range .Software Integration: Automated systems are controlled via intuitive software that manages data acquisition, analysis, and reporting, often providing “ready-to-publish” outputs and advanced lifetime analysis .Flexibility and Upgradability: Many benchtop systems allow upgrades for NIR measurements, time-resolved fluorescence, photoluminescence quantum yields, and anisotropy studies, adapting to evolving research needs .ApplicationsAutomated fluorescence spectrometers are used for:Lif...

Article Content

LifeSpecII Lifetime Spectrometer | Fluorescence Lifetime

The Lifespec II is a compact, fully integrated, high performance, time-correlated single photon counting (TCSPC) fluorescence lifetime spectrometer for fast

LifeSpecII Lifetime Spectrometer | Fluorescence Lifetime

The system is a fully automated solution, combining hardware and software in a single package for fundamental research and routine laboratory applications.

Our X-ray fluorescence measuring instruments | Fischer

Our x-ray fluorescence spectrometers are easy to use and suitable for almost any application. Discover our large product portfolio of devices that include numerous

EVDENT Full-Element Intelligent Analysis Robot – Energy Dispersive

The EVDENT Full-Element Intelligent Analysis Robot is a benchtop/floor-standing energy dispersive X-ray fluorescence (ED-XRF) spectrometer engineered for rapid, non-destructive elemental

Fluorescence Spectrometer, Fluorometer, Cary Eclipse

The Cary Eclipse fluorescence spectrometer is a sensitive, accurate, and flexible fluorometer with unique xenon flash lamp technology that offers fast data

Advanced Fluorescence Spectroscopy Solutions | RF

When combined with intuitive software, the RF-6000 spectrofluorometer is ideal for a wide range of applications, from routine analysis to research and development,

Evident (formerly Olympus) Vanta Handheld Energy Dispersive X-Ray ...

The Evident (formerly Olympus) Vanta handheld energy dispersive X-ray fluorescence (ED-XRF) spectrometer is an industrial-grade, field-deployable elemental analyzer engineered for rapid, non

Automatic spectrometer

The new, next generation Rigaku NANOHUNTER II benchtop total reflection X-ray fluorescence (TXRF) spectrometer enables high-sensitivity ultra-trace elemental analysis of liquids down to parts-per

FS5 Spectrofluorometer | Absorption and Fluorescence

Equipped with top-tier optical components, photon-counting sensitivity, and fluorescence lifetime capabilities, the FS5 excels in both rapid routine analysis

Lifetime fluorescence spectrometer / laboratory / automated / compact

Fluorescence Spectrometer (Lifetime only) The LifeSpec II is a compact, fully integrated, high performance fluorescence lifetime spectrometer designed for use with high-repetition rate pulsed

Determination of silicon in ferrosilicon by X-ray fluorescence ...

The rapid determination method of silicon in ferrosilicon by X-ray fluorescence spectrometry (XRF) after fully-automatic sample preparation was established. The effect of several grinding aids (including

Fully Automated, High Performance Fluorescence

Features: The FluoTime 300 from PicoQuant is a fully automated, high performance fluorescence lifetime spectrometer with steady-state and phosphorescence

ESI EDX8800M MAX Energy Dispersive X-Ray Fluorescence Spectrometer

The ESI EDX8800M MAX is a high-performance, vertically oriented Energy Dispersive X-Ray Fluorescence (EDXRF) spectrometer engineered for precise, non-destructive elemental analysis of

Fully Automated, High Performance Fluorescence

This versatile instrument allows for a broad range of applications such as singlet oxygen, quantum yield, and fluorescence anisotropy measurements as well as

EXPEC MiX5 Pro Handheld Energy Dispersive X-Ray Fluorescence

Overview The EXPEC MiX5 Pro is a handheld energy dispersive X-ray fluorescence (ED-XRF) spectrometer engineered for rapid, non-destructive elemental analysis in field and industrial

Titan Instruments AFS-9320/AFS-9330 Fully Automated

The Titan Instruments AFS-9320 and AFS-9330 are fully automated, six-lamp-position atomic fluorescence spectrometers engineered for high-sensitivity, multi

FluoTime 250 | Compact and Modular Lifetime

FluoTime 250 is a compact, modular filter-based lifetime spectrometer that brings high-quality time-resolved fluorescence and photoluminescence measurements

Automated spectrometer

Find your automated spectrometer easily amongst the 99 products from the leading brands (Thermo Fisher, RENISHAW, Malvern Panalytical, ...) on DirectIndustry, the industry specialist for your

Fluorescence Spectrophotometers (FL) : Hitachi High-Tech Corporation

Hitachi offers high-performance fluorescence spectrophotometers with high sensitivity suitable for a wide range of applications, from teaching, routine analysis, and basic research to advanced research.

X-ray Fluorescence Spectrometer Automatic System

It can integrate and control existing instruments with automated supporting devices such as safety fences, robotic arms, standard sample positions, and control

Advanced Fluorescence Spectroscopy Solutions | RF-6000 | SHIMADZU

Incorporating technology cultivated over decades of developing fluorescence spectrometers, the versatile RF-6000 fluorescence spectrophotometer maximizes the capabilities of fluorescence

Vanta Ore Handheld X-Ray Fluorescence (XRF) Spectrometer by

The Vanta Ore Handheld X-Ray Fluorescence (XRF) Spectrometer, distributed by EVDENT (formerly Olympus), is an industrial-grade, field-deployable elemental analyzer engineered for rapid, non

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: https://umele-pestovani.eu
Email: info@umele-pestovani.eu
Phone: +49 152 287 6349
Address: Neue Mainzer Straße 66-68, 60311 Frankfurt am Main, Germany

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