OPTOSKY
Spectroscopy Solutions

DataSheet

Fluorescence spectrophotometer ATF4500

Features

- High sensitivity, weak signal can also be detected with low noise
- Using xenon lamp, long life and high brightness
- Wide range of photomultiplier tubes (PMT) as standard
- Large sample chamber is suitable for a variety of sample analysis
- The light source uses a long-life xenon lamp: reduces maintenance costs.
- Simple and intuitive operation page: greatly improves the user's speed of getting started
- High-speed 3D fluorescence acquisition
- USB data output interface, can process data online
- A variety of accessories support to meet various needs

Application

- Pharmaceutical engineering
- Biology
- Medical analysis
- Agriculture and Food Inspection
- Environmental science
- Water Quality Analysis
- Chemical engineering
- Teaching and Research

Description

ATF4500 uses a xenon lamp with superior performance, and at the same time improves the lamp power supply, the brightness of the light source is improved, and the service life of the xenon lamp is effectively extended to 1000 hours.

Combined with Optosky's long-term development of superb technology and new technology, the scientifically designed optical path system ensures the superior precision and outstanding measurement accuracy pursued by fluorescence analysis. While ensuring accurate results, the high-speed three-dimensional fluorescence acquisition can also ensure high-speed Scanning speed, not only that, but also a variety of accessories to choose from, to meet various measurement needs of users.

ATF4500 equipped with a simple and intuitive operation page and an intelligent integrated system, which allows users to get started quickly with only a little training. In terms of data processing, online spectrogram processing can be used to better organize data.

Model	Wavelength range
ATF4500	185-900nm
ATF4500-17	185-1700nm
ATF4500-TM	185-900nm, with time resolution function, can measure fluorescence lifetime 150ps~100ns
ATF4500-17-TM	185-1700nm, with time resolution function, can measure fluorescence lifetime 150ps~100ns

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1. Performance

Model	ATF4500	ATF4500-17
Wavelength range	185~900nm	185~1700nm
Scan speed	30、60、240、1,200、2,400、12,000、30,000、60,000nm/min	30、60、240、1,200、2,400、12,000、30,000、60,000nm/min
Sensitivity	Noise at water Raman peak: S/N>800(RMS) Minimum background noise: S/N>7500(RMS) Noise at water Raman peak: S/N>7500(RMS)	Noise at water Raman peak: S/N>800(RMS) Minimum background noise: S/N>7500(RMS) Noise at water Raman peak: S/N>7500(RMS)
Wavelength accuracy	±1.0nm	±1.0nm
Light source	150W xenon lamp	150W xenon lamp
Spectral Bandwidth Excitation	Excitation：1.0/2.5/5/10nm Adjustable Emission：1.0/2.5/5/10/20.0nm Adjustable	Excitation：1.0/2.5/5/10nm Adjustable Emission：1.0/2.5/5/10/20.0nm Adjustable
Resolution	1.0nm	1.0nm
Average sampling time	Fluorescence: 0.0125-999sec Phosphorescence: 1usec-10sec Bio/chemiluminescence: 40usec-10sec	Fluorescence: 0.0125-999sec Phosphorescence: 1usec-10sec Bio/chemiluminescence: 40usec-10sec
Detector	PMT	PMT&InGaAs
Communication interface	USB2.0	USB2.0
Wavelength Repeatability	±0.2nm	±0.2nm
Working humidity	45-80%	45-80%
Working temperature	10-35℃	10-35℃

Note:

*1: The wavelength range can be customized and can be broadened by adapting the detector

*2: The optimal resolution is related to the slit width of the spectrometer; if the slit width is further reduced, the resolution can be further improved;

*3: In the table parameters, only the parameters of the company's standard products are indicated; all Aopu Tiancheng instruments are self-developed and produced products, and the corresponding parameters can be customized;

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2. Picture of outlook

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