

F98 Fluorescence Spectrophotometer

F98 fluorescence spectrophotometer is a new generation of high-performance molecular luminescence analysis equipment. This product is designed for high performance, with high signal to noise ratio, ultra-high scanning speed, ultra-high resolution, ultra-high wavelength accuracy and a variety of accessories. This instrument easily meets the requirements in material research, drug analysis, biochemical and clinical testing, water quality control, food safety testing and other areas of qualitative and quantitative analysis and scientific research. Quantum yield accessory is available for F98 fluorescence spectrophotometer.

Main Features:

- ◆ Horizontal slit optical design, with excellent luminous detection efficiency and high signal to noise ratio. Water Raman peak SNR better than 350: 1 (P-P) or 18000: 1 (RMS BG). The minimum sample volume is 0.5mL when using a standard 10mm square sample cell.
- ◆ Wavelength scanning speed up to 60000 nm / min.
- ◆ Bandwidth 1/2/5/10/20nm adjustable.
- ◆ Fluorescence Quantum Yield accessory available.
- ◆ The software offers fluorescence 3D scanning, equal-wavelength difference synchronous scanning, equal wave number difference (constant energy difference) synchronous scanning functions. (synchronous scanning function require pro version software)
- ◆ Multi accessories available.
- ◆ Using Hamamatsu's high quality Xenon light source and photoelectric multiplier tube detectors and instruments to provide sufficient light intensity signal and the detection sensitivity.
- ◆ Built-in frequency filter. Built-in optical gate, designed for unstable sample.



Optional Accessories:



Multi-function fluorescent sample rack holder:
Base of other sample racks



Membrane sample rack



powder sample rack



Sample cell jacket



Upconversion fluorescent accessory



Fluorescence Quantum Yield accessory

Specification of AE-F98 Series Fluorescence Spectrophotometer	
Excitation Source	150W xenon lamp (Hamamatsu)
Excitation Wavelength	200nm~900nm
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Excitation Slit	1nm/2nm/5nm/10nm/20nm
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Wavelength Accuracy	±0.4nm
Wavelength Repeatability	≤0.2nm
Signal-to-Noise Ratio	S/N≥350(P-P) ; S/N ≥1500(RMS); S/N≥18000(RMS BG)
Limit	≤5×10 ⁻¹¹ g/ml (Quinine Sulfate Solution)
Linearity	γ≥0.995
Peak Repeatability	≤1.5%
Wavelength Scan Speed	Multi-speed Level, Maximum at 60000nm/min
Minimum sample size	0.5mL (Using a standard 10mm square sample cell)
Octave filter	Build in Octave filter
Photometric Quantity Range	-9999 ~ 9999
Response Time	0.02/0.1/0.5/1/2/4/8 s, Auto adjust
Data Transportation	USB2.0
Power	200W
Power Source	AC 220V/50Hz; 110V/60Hz
Instrument Dimension	610×460×365 (mm)
Weight	Net Weight: 21kg Gross Weight: 26kg

Fluorescence Quantum Yield Attachment

There are two ways to measure the quantum yield of a sample: relative and absolute. The relative method is the method of calculating the fluorescence intensity of the sample with the intensity of the known standard fluorescent substance. The absolute method is a method for directly calculating the spectral value of the fluorescent substance obtained by integrating the sphere. F98 Fluorescence Quantum Yield Attachment is an absolute measurement method using an integrating sphere.



This component uses the integrating sphere with a diameter of 100mm to collect excitation light and emitted light in all directions of the sample surface. After the integrating sphere is homogenized, the light comes out of the integrating sphere and enters the monochromator. The light is finally detected by the PMT.