

Fluorescence

Spectrofluorometer

Research-grade spectrofluorometer

FP-6500

Spectrofluorometer
FP-6000 Series



JASCO's latest research grade spectrofluorometer combines excellent specifications and a flexible optical system with JASCO's unique cross platform spectroscopy software suite Spectra Manager™. The FP-6500 was designed to meet the demanding needs of laboratories involved in application areas like biochemistry performing kinetics, stopped flow, titration and anisotropy experiments. These applications can be easily and rapidly undertaken using dedicated accessories and software. Many advanced features of the FP-6500 are supplied with the instrument including spectral correction using Rhodamine B as well as phosphorescence spectrum measurements and phosphorescence lifetime determinations. If extended wavelength measurements are required a NIR instrument the FP-6600 is available which expands wavelength measurements to 1010 nm.

- **Excellent optics and high sensitivity**

FP-6500/6600 optical system utilizes high quality components. The source is a DC-powered 150W Xenon lamp (in a sealed housing) which employs a photometric ratioing system. This utilizes a second photomultiplier tube to monitor and compensate for any variations in the intensity of the 150 Watt Xenon source thus ensuring maximum analytical stability. The use of concave holographic grating monochromators with optimized blaze angles provides maximum sensitivity over the entire wavelength range.

- **High sensitivity**

The FP-6500 boasts extremely high sensitivity with a signal to noise ratio greater than 200:1 Raman band of water peak-to-peak using SBW 5 nm on both EX and EM monochromators, 2 second response at 350 nm excitation wavelength.

- **Versatility and flexibility for biochemistry**

The FP-6500 is supplied with a single position water thermostatable cell holder. In addition, a variety of accessories for temperature control and specific application areas are available including a stirred peltier thermostatted single cell holder, 8-position automatic water thermostatable turret cell changer, peltier thermostatted cell holder with automatic polarizer / depolarizer, sample holder lid with syringe port for fluorescence and chemiluminescence experiments, automatic titration accessory for evaluating the denaturation of proteins or ligand binding experiments as well as stopped flow accessories. These accessories can be used in conjunction with application specific software for a total solution to your application requirements. Fast data collection rates are available and can be optionally increased to provide data collection rates of up to 0.1 milliseconds essential for stopped flow and fast kinetics applications. Spectral bandpass is selectable from 20 nm to 1 nm for when high resolution is required with additional reduced height slits of 5 nm and 10 nm on both monochromators for when only small sample volumes are available and micro cells are used.



SPECIFICATIONS

Specifications of FP-6500

Light source:	Xe lamp with shielded lamp house, 150-watt
Photometric system:	Photometric ratio system using monochromatic light to monitor the intensity output of Xe source
Monochromators:	Holographic grating with 1800 grooves/mm modified Rowland mount
Wavelength range: (mechanical)	Zero order
Wavelength range: (operative)	200 ~ 900 nm for both EX and EM monochromators 200 ~ 850 nm with optional PM R7029
Spectral bandwidth:	1, 3, 5, 10, 20, L5, L10 nm on both EX and EM monochromators
Resolution:	1 nm on both EX and EM monochromators
Wavelength accuracy:	± 1.5 nm on both EX and EM monochromators
Wavelength reproducibility:	± 0.3 nm on both EX and EM monochromators
Wavelength scan speed:	10, 20, 50, 100, 200, 500, 1000, 2000, 5000, 10000, 20000 nm/min for both EX and EM monochromators
Slew speed:	30000 nm/min
Response:	0.01, 0.02, 0.05, 0.1, 0.2, 0.5, 1, 2, 4, 8 sec (standard) up to 0.1 msec (option)
Sensitivity:	Signal to noise ratio 200:1 or higher, Raman band of water peak-to peak using SBW 5 nm on both EX and EM monochromators, 2 second response at 350 nm excitation wavelength.
Gain:	High, Medium, Low, Manual(PMV: 0 ~ 1000 V)
Photometric display:	-999.9 to 999.9
Sample compartment:	Water thermostatable single cell holder
Output port:	RS-232C interface, Analog interface(option)
Power requirement:	100, 115, 200, 230, 240 V, 400VA
Dimensions:	550(W) x 540(D) x 300(H) mm
Net weight:	Approx. 45 kg

Specifications of FP-6600

Same as FP-6500 with the following exceptions

Monochromators:	Holographic grating with 1800 grooves/mm modified Rowland mount for EX Holographic grating with 900 grooves/mm modified Rowland mount for EM
Wavelength range: (operative)	Zero order 220 ~ 850 nm with standard PM R3788-01 for EX monochromator 220 ~ 1010 nm with standard PM R2658P for EM monochromator
Resolution:	1 nm on EX monochromator 2 nm on EM monochromator
Wavelength accuracy:	± 1.5 nm on EX monochromator ± 3 nm on EM monochromator
Wavelength reproducibility:	± 0.3 nm on EX monochromator ± 0.6 nm on EM monochromator
Sensitivity:	Signal to noise ratio 100:1 or higher, Raman band of water peak-to peak using SBW 5 nm EX and 10nm EM monochromators, 2 second response at 350 nm excitation wavelength.

Validation function

FP-6500/6600 is provided with Validation software which tests the following criteria .

- 1) Wavelength accuracy
- 2) Wavelength Repeatability
- 3) Resolution
- 4) Stray light
- 5) Detection Limit
- 6) Photometric stability

UV-30 filter, L-39 filter, R-60 filter and secondary low pressure mercury lamp are built in the FP-6500/6600. Necessary jig are provided as standard.

STANDARD COMPOSITION

Spectrofluorometer	1 set
AC power cable	1 pc.
RS-232C cable	1 pc.
Spare fuse	2 pcs.
Fluorescence cell, 10 mm path.	1 pc.
Allne wrench	1 pc.
Spectra Manager software package	1 set
Instruction manual	1 set
Triangle quartz cell	1 pc.
Cut-off filter, R-60	1 pc.
Diffusion plate (white plate)	1 pc.
Diffusion plate (mirror)	1 pc.
Attenuator	1 pc.
Mini pipetter	1 pc.
Test tube holder	1 pc.
Rhodamine B	1 bottle

ORDERING INFORMATION

Code No.	Description
6807-J007A	FP-6500 Spectrofluorometer
6807-J008A	FP-6600 Spectrofluorometer

OPTIONAL ACCESSORIES

Code No.	Description
Fluorescence Cells	
1103-0081	FP-1004 Standard fluorescence cell
1103-0180	FP-1003 Non-fluorescence rectangular cell
Optional Accessories for Bio-Applications	
6808-J021A	FMH-110 Micro cell holder
6808-J022A	FMM-100 Micro quartz cell for FMH-110
6808-J013A	STR-313 Water thermostatable cell holder with stirrer
6808-J001A	ETC-273 Peltier thermostatted single cell holder with stirrer (Water-cooled)
6808-J002A	EHC-573 Peltier thermostatted single cell holder with stirrer (Air-cooled)
6808-J008A	FCT-133 Water thermostatable automatic 8-position turret cell changer
6808-J006A	CSP-143 Sample holder lid with syringe port
6808-J003A	ADP-303 Peltier thermostatted depolarization accessory (Water-cooled)
6808-J004A	APH-103 Peltier thermostatted depolarization accessory (Air-cooled)
6808-J026A	ATS-443 Automatic titration accessory
6784-J052A	SFA-452 Stopped-flow accessory (2 syringes)
6784-J053A	SFA-453 Stopped-flow accessory (3 syringes)
6784-J054A	SFA-454 Stopped-flow accessory (4 syringes)
6784-J152A	SFA-452T Peltier thermostatted stopped-flow accessory (2 syringes)
6784-J153A	SFA-453T Peltier thermostatted stopped-flow accessory (3 syringes)
6784-J154A	SFA-454T Peltier thermostatted stopped-flow accessory (4 syringes)
Optional Accessories for Environmental or Routine Applications	
6808-J010A	QFS-253 Vacuum sipper
6808-J009A	SHP-393 Peristaltic sipper
6808-J024A	FHM-400 High sensitivity cell holder
6808-J016A	FSC-423 Micro flow cell unit with 15 µl cell
6808-J017A	FSC-523 Micro flow cell unit with 30 µl cell
6808-J018A	FSC-623 Micro flow cell unit with 100 µl cell
6808-J011A	MFC-233 HPLC flow cell accessory
6774-J001A	ASU-605 Autosampler
6708-J051A	NCS-609 Syringe pump
6808-J035A	FMP-963 Microplate reader
Other Optional Accessories	
6808-J025A	FSA-400 30° incident angle cell holder
6808-J023A	FDA-430 Solid sample holder
6808-J012A	EFA-383 Epifluorescence accessory
6808-J020A	FUV-420 Accessory for UV/Vis. measurement
6808-J138A	FDP-223(W) Polarizer and analyzer accessory (for UV/Vis. range)
6808-J029A	FDP-213 Polarizer and analyzer accessory (for Vis. range)
6808-J014A	PMA-283 Low temperature measurement accessory
6808-J015A	OBF-123 Fiber optics accessory
6808-J027A	WRE-343 PM tube for longer wavelength range
6808-J007A	ESC-333 Standard light source for spectral correction
6808-J030A	ROU-233 Analog output I/F (factory option)

● Specifications are subject to change without notice.



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