

**JVSCCO**

**FP-6000 Series**

Fluorescence Spectrophotometers

# The **JASCO**<sup>®</sup> Range of Spectro

The FP-6000 series meets the demands of both research and routine analysis by combining a highly sensitive and flexible optical system with the 32-bit Windows™ based Spectra Manager™ software platform. The FP-6000 series is equipped with a flexible sample compartment that allows use of a range of pre-aligned optional sampling accessories to meet many specific application requirements.

## FP-6500

- Research grade spectrofluorometer with excellent working specification, operating under Jasco Spectra Manager™ software suite
- Ideal for biochemistry applications, performing kinetics, stopped-flow, titration and anisotropic measurements
- Minimum resolution of 1nm on both EX and EM monochromators
- Operating range 220 - 750nm (to 850nm with optional PM tube)
- S/N ratio > 800:1 for Raman band of water
- Fully GLP/GMP compliant with on board validation software
- Phosphorescence spectrum and lifetime determinations
- The model FP-6600 is a factory option available for NIR measurements to 1010nm



# fluorometers



## FP-6300

- Mid range spectrofluorometer
- Minimum resolution of 2.5nm
- Operating range 220-750nm (to 900nm with optional PM tube)
- S/N ratio > 550:1 for Raman band of water
- GLP/GMP compliant with optional validation software



## FP-6200

- General purpose spectrofluorometer
- Choice of operating system for research and routine applications

PC based Spectra Manager™ for demanding experimental procedures

Touch screen LCD display. IRM (intelligent remote module) for routine measurements.

- Minimum resolution of 5nm
- Operating range 220-730nm with standard PM tube  
200-900nm with optional PM tube for EM monochromator  
200-800nm with optional PM tube for EX monochromator
- S/N ratio greater than 450:1 for Raman band of water
- GLP/GMP compliant with optional validation software
- Supported by a full range of accessories for a wide variety of fluorescence applications



# Spectra Manager™

JASCO is the first manufacturer to develop a powerful, cross-platform Windows® software package for controlling a complete range of spectroscopic instrumentation. It features full control, data acquisition and spectral analysis programs. System validation and diagnostic routines are included for assured performance.

This figure shows the standard [measurement] and [analysis] program menu. When additional programs are installed, they are added to the main menu. The [analysis] menu appears on the left and the [measurement] on the right. Simply double click a program to select operational mode.



Spectra Manager™ Menu

## Standard Software: Measurement

	FP-6500	FP-6300	FP-6200
Quantitative Measurement	✓	✓	✓
Spectrum Measurement	✓	✓	✓
Time Course Measurement	✓	✓	✓
Fixed Wavelength Measurement	✓	✓	✓
3D Fluorescence Measurement	✓	✓	✓
Phosphorescence Spectrum Measurement	✓	-	-
Phosphorescence Lifetime Measurement	✓	-	-
FP Intensity Monitor	✓	✓	✓
Spectrum Correction	✓	Optional	Optional
Validation	✓	Optional	Optional
Environment	✓	✓	✓

## Standard Software: Analysis

	FP-6500	FP-6300	FP-6200
Spectra Analysis	✓	✓	✓
File Viewer	✓	✓	✓
JASCO Canvas	✓	✓	✓
3D Fluorescence Analysis	✓	✓	✓

## Optional Software

	FP-6500	FP-6300	FP-6200
Interval Scan	✓	✓	✓
Temperature Interval Scan	✓	✓	✓
Dual Wavelength Time Scan	✓	✓	✓
Melting	✓	✓	✓
Long Time Scan	✓	✓	✓
Rapid Time Scan	✓	-	-
Validation	Standard	-	-
Spectrum Correction	Standard	✓	✓
Macro Command	✓	✓	✓
Fluorescence Polarization	✓	-	-
Automatic Titration	✓	-	-
Stopped Flow Analysis	✓	-	-

## Spectrum Measurement

## Quantitative Measurement

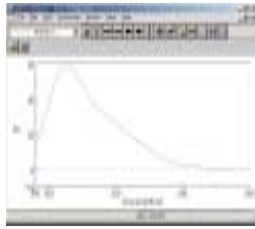
## Time Course Measurement

## Spectrum Correction and Validation

## 3D Fluorescence Measurement



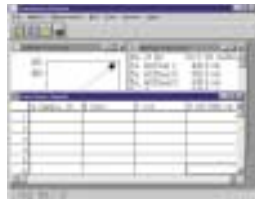
Dialog Box



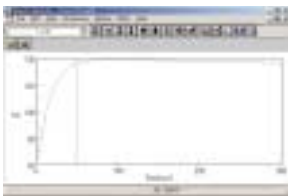
Acquisition

No.	Time	Wavelength	Intensity
1	0.00	400	100
2	0.05	400	100
3	0.10	400	100
4	0.15	400	100
5	0.20	400	100
6	0.25	400	100
7	0.30	400	100
8	0.35	400	100
9	0.40	400	100
10	0.45	400	100

Calibration Parameters



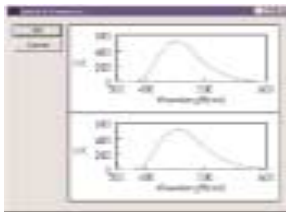
Analysis



Measurement



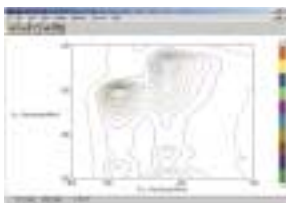
Set Up Parameters



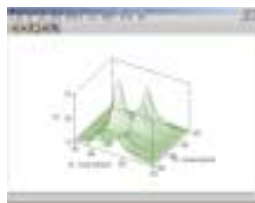
Spectrum Correction



Validation



Map



Spectrum

### ROM/RAM Cards for the FP-6200iRM

- Validation card
- Parameter memory card
- Data memory card
- Kinetics analysis card
- User calculation card
- Macro command card

# Accessories

## Automatic Titration (FP-6500 only)

Two syringe titration accessory. Each syringe controlled independently by program. Important technique for monitoring protein denaturation and ligand binding experiments.



## Stopped Flow Accessory (FP-6500 only)

Connects to the FP-6500 via the OBF-123 optical fiber accessory and 2 optional fiber cables for both excitation and emission monochromators.



## Sippers

Enables high sample throughput making them ideal for QC and environmental testing. Two types of sipper are available, vacuum pump and peristaltic pump.

## Peltier thermostatted depolarisation accessory (FP-6500 only)

For measuring emission anisotropy and the degree of polarisation in static light excitation by using polarizer and analyzer in thermostatic sample chamber. Two models, air cooled and water cooled are available.



## Peltier thermostatted single cell holder with stirrer

Temperature control range, for sensor in contact with sample solution, is 10°C to 60°C (for air cooled) and 0°C to 100°C for water cooled devices.

Only the water cooled model is available for the FP-6200.



## Water thermostattable automatic turret cell changer

Choice of 8 position (FCT-133 for FP-6500/6300) or 4 position (FCT-152 for FP-6200) rectangular cell holder. Temperature control is via water circulation.



## Water thermostattable single cell holder with stirrer

Single position, constant temperature cell holder with variable speed stirrer, accommodating standard 10mm rectangular cell or microcell holder.



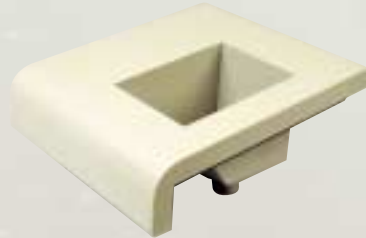
### Microcell holder

Consists of FMH-110 microcell adaptor and FMM-100 microcell (quartz cell of 3mm ID x 3mm length). Cell adaptor fits into standard cell holder and all optional cell holders.



### Sample holder lid with syringe port

For injecting reagent into sample cuvette without having to open sample compartment lid. Useful for kinetics applications.



### Microplate reader

For combinatorial chemistry and automated analysis. 96-well plates can be read with the system comprising autosampler with microplate rack, syringe pump and micro cell unit.



### Syringe Pump / Autosampler

For automatically measuring and dispensing small volume samples onto a micro plate. Controlled by the ASU-605 autosampler.

### Epifluorescence accessory

For measuring surface fluorescence of solid samples. Sample is mounted, without pre-treatment, on the horizontal stage.



### Additional Accessories

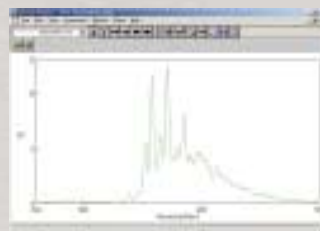
- Intracellular Calcium Ion Measurement
- Cell holder for high sensitivity measurements
- HPLC flow cell
- 30° incident angle cell holder
- Solid sample holder
- UV/VIS measurement accessory
- Micro flow cell unit (6500 and 6300 only)

### Phosphorescence measurement (FP-6500 only)

The FP-6500 is supplied with software for phosphorescence spectrum measurement and phosphorescence lifetime measurement. This is used with a low temperature measurement accessory.



Parameter Set Up



Benzene Phosphorescence Spectrum





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Products described herein are designed and manufactured by ISO-9001-certified JASCO Corporation.

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