

It's About Time!

The World's Most Sensitive, Steady-State
Spectrofluorometer

*Becomes the world's most sensitive
Lifetime System*

Now you can have the speed and versatility you've come to expect in the FluoroMax[®], with the bonus of pico- and nanosecond lifetime capability. Perfect for dynamic anisotropy, TRES, and virtually any application requiring time-resolution. When you want to run spectra, just dial it into the software and you're on your way—all with the ultimate, unrivaled sensitivity of photon-counting that strips away the noise, rather than adding it to your signal like an analog system has to.

The FluoroMax[®] is a compact, single-module spectrofluorometer with thousands working daily worldwide, providing the ultimate in fluorescence sensitivity. Now, TCSPC expertise from IBH, pioneers in the field, makes it the most sensitive method for recording fluorescence dynamics. This marriage of proven designs means you can run your samples with confidence backed up by decades of experience and thousands of users around the world, as well as sales and service offices the world over.



Specifications

Below you'll find a list of guaranteed specifications for the FluoroMax®-3 spectrofluorometer. Compare them with other instruments and you'll see why FluoroMax®-3 is uniquely suited to your application.

Optics:	All-reflective for focusing at all wavelengths and precise imaging for microsamples
Source:	Ozone-free xenon lamp eliminates venting
Spectrometers:	Plane-grating Czerny-Turner design maintains focus at all wavelengths
Excitation:	Range 200–950 nm, optimized in the UV
Emission:	Range 200–950 nm, optimized in the visible
Bandpass:	0–30 nm, continuously adjustable from computer
Wavelength accuracy:	± 0.5 nm
Scan Speed:	160 nm/second
Integration Time:	One millisecond to 160 seconds
Emission Detector:	Photomultiplier range 200–850 nm
Reference Detector:	Photodiode selected for stability
Wafer Raman Signal:	300,000 counts/second minimum at 350 nm excitation and 397 nm emission Bandpass = 5 nm Integration time = 1 sec

Signal-to-Noise Ratio: 3000:1
System Control: PC Computer

Dimensions (FluoroMax®): 32 × 10.5 × 18.5 in. (w × h × d)
80 × 26.5 × 46.5 cm (w × h × d)
Laser port and removable front plate for additional accessories

Dimensions (Sample Compartment): 5.5 × 7 × 7 in. (w × h × d)
13.8 × 23 × 27 cm (w × h × d)

Power Requirements: 5 amps @ 120V
2.5 amps @ 240V
50/60 Hz single phase

Weight: 75 lbs (30 kg)

Lifetime

Lifetime range: 200 picoseconds–0.1 milliseconds (100 ps optional)

Minimum resolution: <7 ps/channel

Excitation: NanoLED sources from 280 nm–785 nm, instantly interchangeable

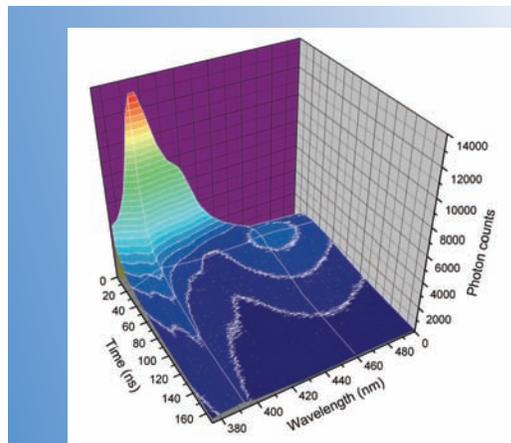
Detection: Time-Correlated Single-Photon Counting, to grab photons and reject noise, unlike analog methods that simply add the signal to the noise, degrading detection limits and accuracy.

Software

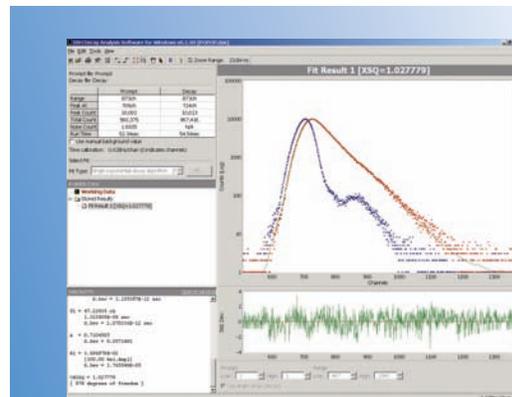
DAS6 is the 6th-generation decay analysis software featuring reconvolution, shift integration, and advanced user interface with IBH's proprietary Hybrid Grid Search Algorithm (HGSA) for stable chi-squared minimization.

Accessories

Sample Heater/Coolers
Dewars
Autopolarizers
and more



The evolution of fluorescence spectra over a course of time can be examined with HORIBA Jobin Yvon instruments using a time-resolved emission spectrum. Here the evolution of a pyrene-excimer complex is plotted over the course of 160 ns and various emission wavelengths.



This is an actual screenshot of the fluorescence-decay of POPOP in methanol (red), with a single-exponential fit (green), and the lamp pulse (blue). The lifetime was found to be 1.32 ns.

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HORIBAJOBIN YVON

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USA: HORIBA Jobin Yvon Inc., 3880 Park Avenue, Edison, NJ 08820-3012, Toll-Free: +1-866-jobinyvon
Tel: +1-732-494-8660, Fax: +1-732-549-5125, E-mail: info@jobinyvon.com, www.jobinyvon.com

France: HORIBA Jobin Yvon S.A.S., 16-18, rue du Canal, 91165 Longjumeau Cedex,
Tel: +33 (0) 1 64 54 13 00, Fax: +33 (0) 1 69 09 93 19, www.jobinyvon.fr

Japan: HORIBA Ltd., JY Optical Sales Dept, Higashi-Kanda, Daiji Building, 1-7-8 Higashi-Kanda
Chiyoda-ku, Tokyo 101-0031, Tel: +81 (0) 3 3861 8231, www.jyhoriba.jp

Germany: +49 (0) 89 462317-0 **Italy:** +39 0 2 57603050 **UK:** +44 (0) 20 8204 8142

China: +86 (0) 10 6849 2216

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