

MOS-200/M

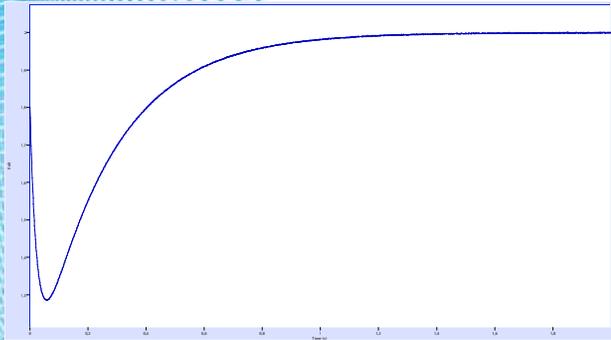
The motorized version
Rapid Kinetics Spectrometer compatible with all SFM
models



APPLICATIONS

- Absorbance
- Fluorescence
- 90° light scattering
- Chemiluminescence

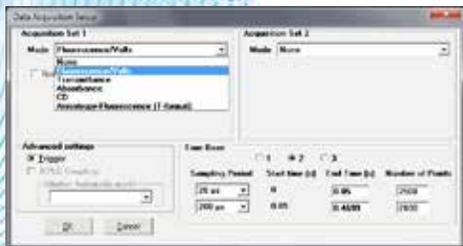
Options



Fast and sensitive

MOS-200/M is the motorized version of MOS-200. It offers the same speed and sensitivity with the addition of full software control over wavelength, PMT gain, and acquisition speed. Coupled to one of our stopped-flow model it offers the most complete and flexible stopped-flow spectrometer configuration available.

A double Xe/Xe(Hg) light source allows changing lamps without any lamp handling. It is perfect for easy switching from kinetics to steady state applications. Connection to the stopped-flow cuvette is done through a fiber optic cable, which guarantees maximum and uniform light efficiency from the grating to the observation cell. Cut-off or low pass band filters can be used to select emission wavelength in fluorescence mode.”



Fast and sensitive

Detection is made using a high sensitivity photomultiplier tube (PMT) optimized for wavelength from 160 to 850 nm. **The same PMT can be used for both absorbance and fluorescence measurements: switch from one configuration to the other takes only 30 seconds!** The PMT is fully software controlled.

The operator has the choice between single and multi time base acquisition modes with a **fastest sampling period of 1 measurement per 10 µs**. Combined with the **250 µs dead time** of the stopped-flow it offers ideal conditions for ultra-fast kinetics. Sampling rate is adjustable so complex reactions with different steps can be followed easily.

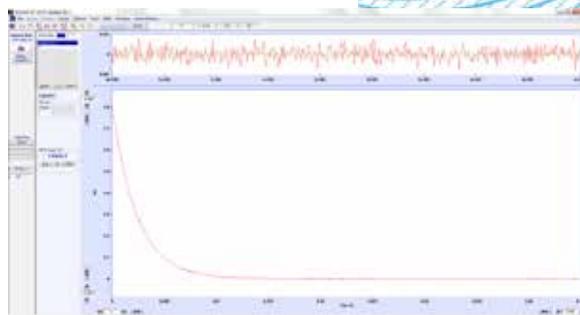
Wavelength tracking mode : the user can program a series of shots at different wavelength to build 3D data (wavelength, time, signal) . Such data give access to SVD and global fitting analysis using Sfit with a 10 µs resolution !

Included with MOS-200/M

- Optical rail
- Motorized monochromator
- Photomultiplier tube
- Photomultiplier control unit (PMS-250)
- Acquisition board and communication cable
- 320 nm cut-off filter
- Double light source + power supply (ALX-300)
- 1.5 meter fiber optics (other dimensions available on request)
- Fiber optics adaptor for stopped-flow head
- Trigger cable
- Biokine and SFit software
- MM-450 control unit

User-friendly software

Bio-Kine includes analysis functions so data can be fitted using predefined or user-defined equations. Operations such as smoothing, linear or Log sampling, and baseline subtractions are standard. RMS noise analysis is available, and residuals analysis helps you estimate the quality of the fit. Data is saved as text files for easy transfer to other software.



Endless upgrade possibilities

T-format anisotropy kit:

It includes a set of Glan-Taylor polarizers and an additional detection channel. Polarizers are installed in PMT holder for easy removal in absorbance mode. Triple simultaneous measurements (absorbance/T-format anisotropy, fluorescence) is available with optional 049-10.

Additional detection channel

For simultaneous absorbance/fluorescence and double fluorescence measurements. This includes a second photomultiplier tube and control unit.

MOS-500

MOS-200/M can be upgraded to higher spectrometer models to access detection techniques such as Circular Dichroism, Linear dichroism and Fluorescence Anisotropy using our **patented EMFA method (Excitation Modulated Fluorescence Anisotropy)**.

Emission monochromator

For fluorescence emission spectra or kinetics detection at a fixed wavelength. Monochromator is available in both manual and motorized version.

Specifications

SPECIFICATIONS

Light source

Number of lamps	2
Type	super quiet 150W XeHg and 150W Xe (tungsten lamp available in option)
Wavelength range	220 nm to 700 nm XeHg 200 to 800 nm Xe
Stability	better than 0,0005 AU
Nature of spectrum	sharp lines for XeHg continuous spectrum for Xe

Manual monochromator

Grating	1200 grooves/nm
Focal length	100 mm
Aperture	F/#3.5
Wavelength range	zero order and 200-800 nm
Linear dispersion	8 nm/mm
Accuracy	±0.5 nm

Fiber optic

Material	quartz
Wavelength range	200-800 nm
Length	1.5 m
Dimensions	1mm x 3mm (monochromator side) 1.9 mm diameter (stopped-flow side)

Detector

Photomultiplier tube	11 stage, optimized for UV and Visible
Operating voltage	0 to 1200 V
Low pass filters	manual

Data acquisition

Acquisition board type	High speed PCIe
Sampling rate	10 µs to 1000s / point
Number of time bases	3
Noise level in fluorescence	S/N > 1000 at 1 ms integration time (using FC-15 and 1 µM NATA)
Noise level in absorbance	5x10 ⁻⁵ AU rms at 1 ms integration time
System requirements	Windows PC running 7, 8, 10 (32 or 64 bits) large PCIe slot

Specifications are subject to change



Headquarters

Bio-Logic SAS
1, rue de l'Europe
38 640 Claix - France
Phone: +33 476 98 68 31
Fax: +33 476 98 69 09

www.bio-logic.info

Affiliate offices

Bio-Logic USA, LLC
P.O.Box 30009 - Knoxville, TN37930 - USA
Phone: +1 865 769 3800 - Fax: +1 865 769 3801

Bio-Logic Science Instruments Pvt Ltd
304, Orion Business Park, Next to Cine Wonder,
G. B. Road, Thane(W), 400 607 Mumbai - India