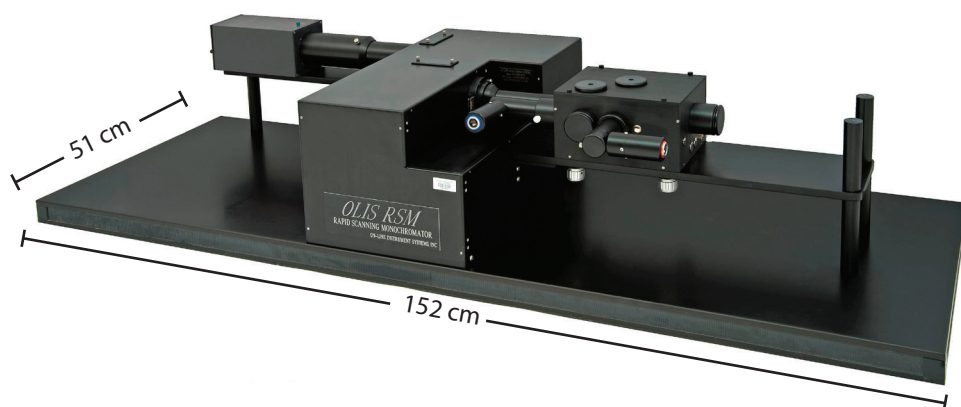


CLARiTY 1000

Millisecond spectral scanning for metabolism and other fast studies

For laboratories which prioritize kinetic measurements, this is the premier choice, offering photometrically accurate and precise scanning at rates to 100 spectral scans per second (across a 230 nm span). Follow the electron transport chain in dilute suspensions of mitochondria or follow the vitamin A cycle using an intact retina! Optics are the R&D 100 Award winning and patented "Subtractive Double Grating Monochromator with Moving Intermediate Slit," aka, the OLIS RSM 1000, with Hamamatsu analog photomultiplier tube and 16 bit precision BitWise A/D; steady-state xenon arc lamp. Addition of emission monochromator and photon counter for fluorescence, optional.



Standard Acquisition Modes:

**CLARiTY
Absorbance**

Enhancements Supported:

Fluorescence
Circular Dichroism
Circularly Polarized Luminescence
Phosphorescence Lifetime
Peltier Thermal Control
Stopped Flow
Thin Film Holder
Titrator

CLARiTY 1000 SPECIFICATIONS

Spectral Range	240 - 800 nm; extendable to NIR
Detection Limit	5×10^{-4} AU/cm
Monochromator	DeSa Subtractive Double Gratings with Moving Intermediate Slit
Light Source	75 watt xenon arc lamp
Scan Rate	Using moving intermediate slit mode, a top speed of 100 scans/sec with 1 nm resolution (i.e., 23,000 points per second) with signal average to slower effective scan rate
Mode of Detection	2 PMTs, UV/Vis optimized; NIR available with InGaAs; option of photon counting for fluorescence
Stray Light Rejection	< 0.001 %
Intermediate Slit	High precision stepping motor driven ScanDisk to achieve noise-free rapid-scanning to 100 scans per second. Slower acquisition rates available to arbitrarily slow available, too. Dark: 50 microsecond dark period between each millisecond scan