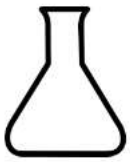
OLIS CLARiTY VF Spectrophotometer

An absorbance and fluorescence spectrophotometer useful for measurement of clear and turbid samples in the UV/Vis spectral region. Detection range is from 240-870 nm, generated by a tungsten and deuterium lamp pair. Useful with suspensions, such as intact mitochondria and cytochromes, blood and tissue cells, nanoparticles, algae, and other historically 'impossibly turbid' samples.

- Obtain accurate absorbance on all samples, not just reduced and purified clear solutions
- Thus, minimal sample disruption and minimal sample preparation are required
- Sensitivity up to 30x higher than with a traditional 1 cm^2 spectrophotometer

Applications include:



- ✓ Mitochondria & Cytochromes
- ✓ Nanoparticles & other materials
- ✓ Algae & Cyanobacteria
- ✓ Blood & Tissue
- ✓ Wine & Grape characterization

SYSTEM ATTRIBUTES

- Immunity to scatter caused by turbid adjuvants
- Integrating cavity of 150 µL, 1 mL or 8 mL volume rather than a 1 cm^2 cuvette
- Nanomolar sensitivity
- Entire sample used in measurement
- Deuterium & Tungsten source for maximum intensity across the UV/Vis
- Single grating monochromator with 75 mm focal length
- Photon counting PMT detector

TECHNICAL SPECIFICATIONS

- **Wavelength range:** 230 nm – 870 nm
- **Resolution:** 0.125 nm
- **Dynamic Range:** 400-fold, (0.0004 to 0.16 AU)
- **Wavelength Accuracy:** ± 0.2 nm
- **Spectral Bandwidth:** 0.5 nm – 25 nm
- **Signal to Noise:** 50 @ 280 nm and 70 @ 430 nm for an AU of 1 and a 0.5 sec integration time