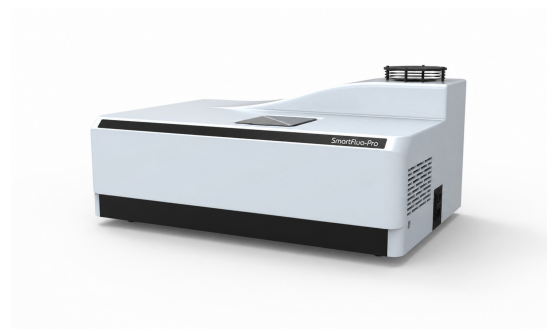


SmartFluo-Pro

SmartFluo-Pro 3D Fluorescence Spectrometer

SmartFluo-Pro records excitation-emission matrices (EEMs) to characterise fluorescent dissolved organic matter in water. A 150 W continuous xenon source and 200–800 nm excitation and emission ranges support routine water-quality research and treatment-process comparisons.

Best for: Fluorescence fingerprints of natural water, wastewater and dissolved organic matter.

**200–800 nm**

Excitation & emission

5 nm

Spectral bandwidth

100 μ s–24 s

Integration time

150 W xenon

Source

Overview

An excitation-emission matrix records fluorescence intensity across both excitation and emission wavelength. The resulting surface or contour map helps compare the fluorescent components of dissolved organic matter, including protein-like and humic-like signals.

SmartFluo-Pro supports excitation, emission, synchronous, stability and three-dimensional fluorescence scans. Saved measurement methods and extraction of spectra from the EEM support repeated sample comparisons and review of individual spectral features.

Measurement and software

- Excitation, emission, synchronous and 3D EEM scan modes
- Stability scans and three-dimensional synchronous fluorescence
- Contour views with excitation, emission and synchronous spectra extracted from 3D data
- Saved measurement methods and software data processing

Applications

- Natural-water and dissolved organic matter characterisation
- Municipal wastewater and treatment-process comparisons
- Industrial wastewater fluorescence screening
- Studies of organic-matter transformation and biodegradation

Specifications

Optical performance	
Light source	150 W continuous xenon lamp
Excitation range	200–800 nm
Emission range	200–800 nm
Excitation bandwidth	5 nm
Emission bandwidth	5 nm
Excitation monochromator	200 mm focal length; Czerny–Turner design
Grating	1800 lines/mm; 400 nm blaze
Wavelength accuracy	±1 nm
Wavelength repeatability	±0.5 nm

Acquisition and sample handling	
Integration time	100 µs–24 s
Specified detection limit	< 0.1 µg/L for quinine sulfate in 0.1 mol/L sulfuric acid
Sample holder	Standard quartz cuvette
Scan modes	Excitation, emission, stability, synchronous, 3D fluorescence and 3D synchronous fluorescence
Dimensions	620 × 415 × 300 mm (L × H × W)
Weight	25 kg

Detection-limit conditions

The detection limit is specified for a quinine-sulfate standard under the stated conditions. It is not a universal detection limit for all dissolved organic compounds; sample matrix, measurement settings and processing affect the result.

Configuration and quotation

Share your sample type and fluorescence measurement workflow. Contact info@precisometer.com for a configuration and quotation.

www.precisometer.com/spectroscopy/fluorescence/smartfluo-pro