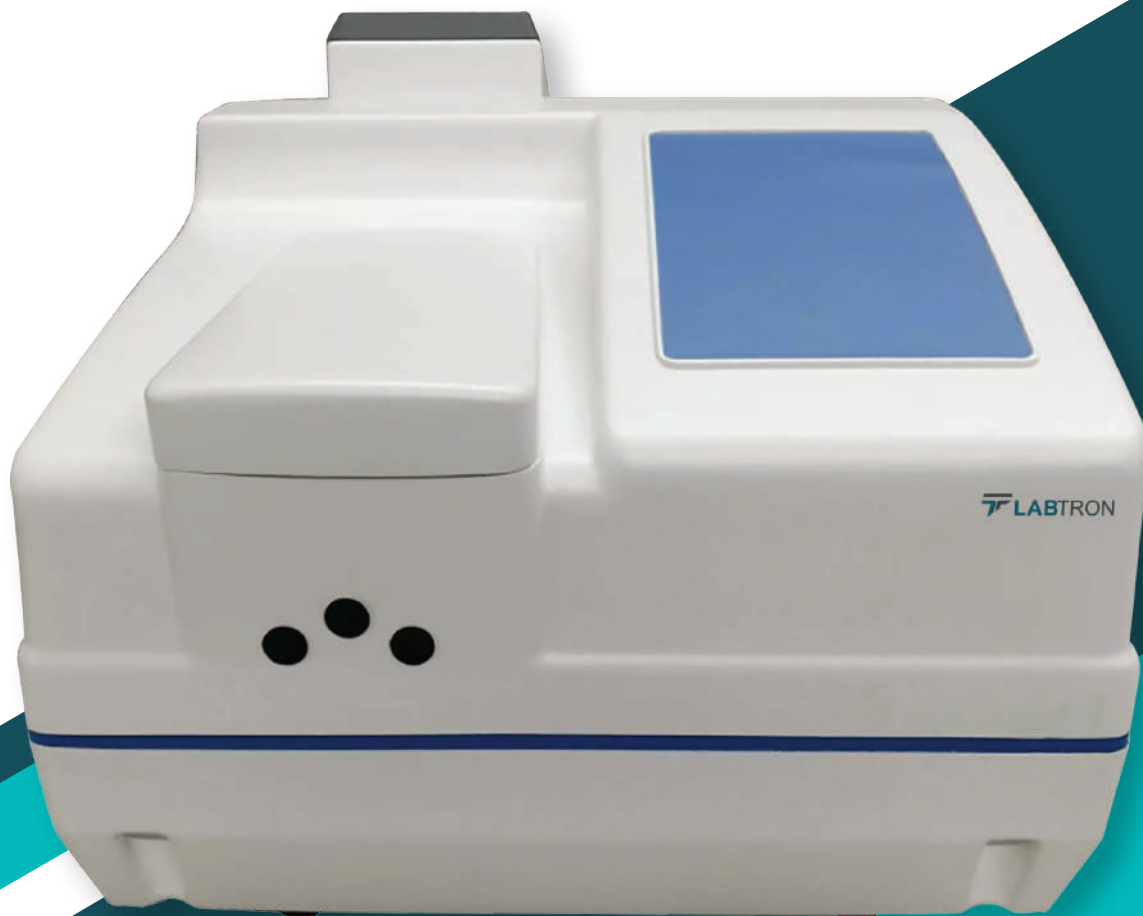


# Fluorescence Spectrophotometer

## LFS-A10 & LFS-A12



## Fluorescence Spectrophotometer LFS-A10 & LFS-A12

Fluorescence Spectrophotometer LFS-A10 consist of a high quality 150 W Xenon light source and photoelectric multiplier tube detectors for providing sufficient light intensity signal to detect sensitivity which ranges between 200 nm to 900 nm. Features fluorescence detection limit of  $\leq 5 \times 10^{-11}$  g/ml and Water Raman peak of  $S/N \geq 200$ . It consists of the following characteristics, namely, high detection sensitivity, fast scanning speed, high dynamic range, fast 3D scanning, etc. The main principles includes measurement of absorption and fluorescence. Absorbance measurements can be taken via one or more wavelengths. The fluorescence unit increases the measuring range by 1000 for detecting DNA.

Fluorescence Spectrophotometer LFS-A12 consist of a high quality 150 W Xenon light source and photoelectric multiplier tube detectors for providing sufficient light intensity signal to detect sensitivity which ranges between 200 nm to 900 nm. Features fluorescence detection limit of  $\leq 1 \times 10^{-10}$  g/ml and Water Raman peak of  $S/N \geq 150$ . It consists of the following characteristics, namely, high detection sensitivity, fast scanning speed, high dynamic range, fast 3D scanning, etc. The main principles includes measurement of absorption and fluorescence. Absorbance measurements can be taken via one or more wavelengths. The fluorescence unit

### Features

- High sensitivity is fetched from high efficiency optical design and weak signal detection technology
- Excitation and emission wavelength range from 200 nm to 900 nm to meet most of the fluorescence analysis
- Fluorescence detection limit of  $\leq 5 \times 10^{-11}$  g/ml and Water Raman peak of  $S/N \geq 200$  (for LFS-A10)
- Fluorescence detection limit of  $\leq 1 \times 10^{-10}$  g/ml and Water Raman peak of  $S/N \geq 150$  (for LFS-A12)
- Classic fluorescence spectra and high quality 3D fluorescence spectra can be achieved via high scanning speed at 48000 nm/min
- Wide Spectral measurement range is achieved using a double monochromator
- Excitation light monitoring system consist of a light dual beam ratio to ensure the fluorescence signal is high and stable
- Unstable samples is analysed via built-in optical gate
- It is a highly advance structure with fine finishing

## Application

Fluorescence Spectrophotometer are applicable in material research, pharmaceutical analysis, biochemical and clinical testing, water quality analysis and control, food safety testing.

## Specifications

Model no	LFS-A10	LFS-A12
Light source	150 W Xenon lamp	150 W Xenon lamp
Excitation wavelength	200 nm to 900 nm	200 nm to 900 nm
Emission wavelength	200 nm to 900 nm	200 nm to 900 nm
Excitation slit	2 nm, 5 nm, 10 nm, 20 nm	2 nm, 5 nm, 10 nm, 20 nm
Emission slit	2 nm, 5 nm, 10 nm, 20 nm	2 nm, 5 nm, 10 nm, 20 nm
Wavelength accuracy	±0.4 nm	±1.0 nm
Wavelength repeatability	≤ 0.2 nm	≤ 0.5 nm
Signal-to-Noise Ratio	Raman peak of water (P-P):	Raman peak of water (P-P):
	S/N ≥ 200 (10 nm Slit)	S/N ≥ 150 (10 nm Slit)
Detection limit	≤5×10 <sup>-11</sup> g/ml (Quinine	≤1×10 <sup>-10</sup> g/ml (Quinine
	Sulfate Solution)	Sulfate Solution)
Linearity	$\gamma \geq 0.995$	$\gamma \geq 0.995$
Peak repeatability	≤ 1.5%	≤ 1.5%
Stability (10 min) Zero Drift	±0.3	±0.3
Stability (10 min) Value Limit	±1.5%	±1.5%
Wavelength scan speed	Multi-speed level, Maximum	Multi-speed level, Maximum
	at 48000 nm/min	at 48000 nm/min
Photometric value	0.00 to 10000.00	0.00 to 10000.00
Data interface	USB 2.0	USB 2.0
Maximum power consumption	200 W	200 W
Power Source	AC 220 V/50 Hz;	AC 220 V/50 Hz;
	110 V/60 Hz	110 V/60 Hz
Dimension	380×445×310 mm	380×445×310 mm
Net weight	12kg	12kg
Gross weight	14kg	14kg

## Optional Accessories

Accessories No.	Accessories Name	Functions
1	Membrane sample rack	For membrane samples
2	Powder sample rack	For powder samples
3	Up conversion fluorescent holder	Base holder for other racks
4	Octave Double-frequency	Remove the interference of double-frequency peaks of these wavelengths
	elimination filter (300 nm,	
	350 nm,400 nm,450 nm,	
	500 nm,550 nm,600 nm,650	
	nm for one set)	
5	Auto polarization filter	-
6	Sample cell jacket	-
7	Peltier temperature (15 to	-
	40°C) control holder	