

Fiber Optic Spectrometer

Changchun New Industries Optoelectronics Tech. co., Ltd launched fiber optic spectrometer. It includes Aurora4000 series, Sunshine series and Firefly4000 miniature series. The system of spectrometer consists of incident slit, collimating mirror, dispersion (grating), focusing optical system and detector. Light is collected through optical fiber into spectrometer slit, spectral information can be read by software. It fits for high-speed reaction monitoring, wide dynamic range and high signal to noise ratio. Fiber optic spectrometer features with compact structure, high resolution and high sensitivity.



Auraro4000



Sunshine



Firefly4000

Specification

Model	Auraro4000	Sunshine	Firefly4000
Detector			
Detector	Toshiba TCD1304DG linear CCD array	Hamamatsu S 11510	Toshiba TCD1304DG linear CCD array
Wavelength range (nm)	200-1100nm	200-1100nm	200-1100nm
Pixels	3648 pixels	2048 pixels	3648 pixels
Pixel size	8um*200um	14um*14um	8um*200um
Spectrometer			
Dimensions (mm)	149*105*46	149*109*50	89*63.9*36.2
Weight (g)	840	1000	170
Optical resolution	<0.75nm FWHM	0.035-0.6nm	<0.6nm
Signal-to-noise ratio	300:1	10000:1	300:1
Integration time	4ms-10s	17ms-10s	4ms-10s
Electronics			
Power consumption	450mA@5VDC	450mA@5VDC	450mA@5VDC
Data transfer speed	Full scans into memory every 4 milliseconds with USB 2.0; every 18 milliseconds with USB 1.1		
Inputs/outputs	5 inputs and 5 outputs (opto-isolator inputs/outputs)		
Analog channels	One 12 analog input one 12 analog output		
Strobe functions		YES	YES
Connector	30-pin connector	30-pin connector	30-pin connector

Application area

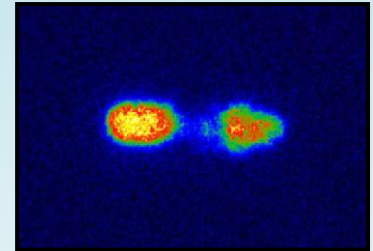
- ◇ LED analysis
- ◇ Chemical analysis
- ◇ Environmental sciences
- ◇ Food and agriculture research
- ◇ Reflectivity/transmittance measurement
- ◇ Medical diagnosis and detector



Laser spectral analysis



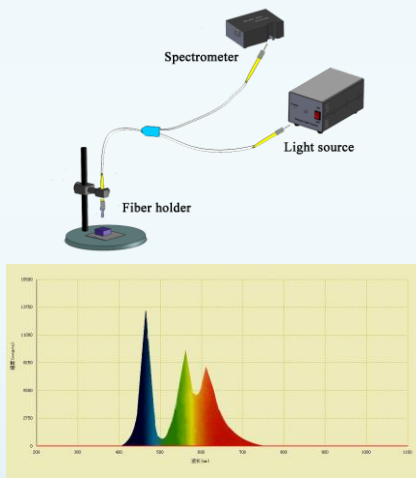
Fluorescence spectral analysis



Plasma spectral analysis

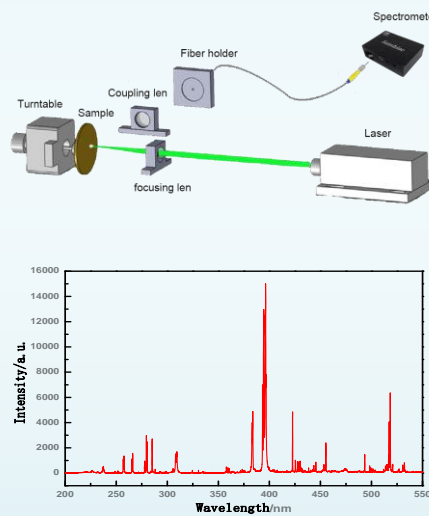
Application Device

Reflectivity measurement experiment device



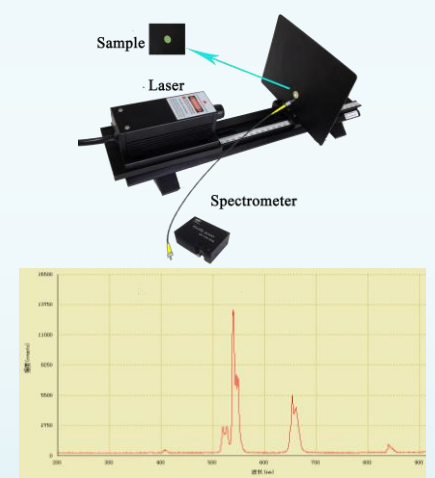
Reflection chroma test

LIBS experiment device



Al target LIBS spectrum

Fluorescence spectrum of rare earth elements experiment device



Fluorescence spectrum of rare earth elements

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