



# EnSpectr L730<sup>®</sup>

## Luminescence Spectrometer

**EnSpectr L730<sup>®</sup>** Luminescence Spectrometer is designed to address the high demand in a powerful and portable luminescence spectrometer specifically tuned to control the optical characteristics of semiconductor heterostructures.

The optical elements of the **EnSpectr L730<sup>®</sup>** Luminescence Spectrometer are tightly build-in to provide the highest possible resolution at the spectral range of GaAs and AlGaAs luminescence. It takes a second to obtain luminescence spectrum of low dimensional heterostructures such as heterojunction, quantum well, superlattice and quantum lasing structure grown by Molecular Beam Epitaxy or Chemical Vapor Deposition techniques.

The luminescence measurements are highly informative and could be used for complex transport studies. **EnSpectr L730<sup>®</sup>** is capable to deliver the precise quantitative measurements of heterostructure quality, the electron density, and distribution of electrons through a multilayer structure within seconds.

**EnSpectr L730<sup>®</sup>** Luminescence Spectrometer is an ideal choice for complex scientific studies in the field of photoluminescence and electroluminescence. In fact **EnSpectr L730<sup>®</sup>** addresses a wide range of scientific issues and easily substitutes heavy and expensive equipment for luminescence measurements.

The SMA input provides with an easy connectivity to a fiber allowing low temperature luminescence measurements in a cryogenic surrounding. The experimental data are accessed via an intuitive user interface and could be obtained remotely via USB port.

**EnSpectr L730<sup>®</sup>** Luminescence Spectrometer utilizes a 20 (30 optional)  $\mu\text{m}$  entrance slit, 1800 g/mm holographic grating, cutting-edge low pass filter. The luminescence is excited by a 10 mW semiconductor laser at 730 nm to provide a single shot luminescence spectrum in the spectral range of 775 – 870 nm.

### Features

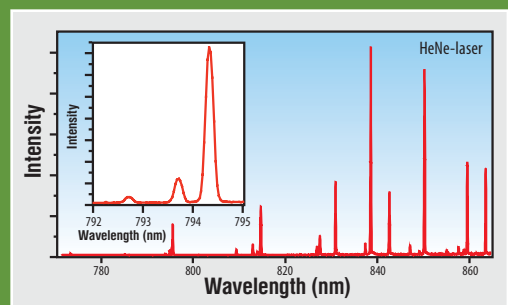
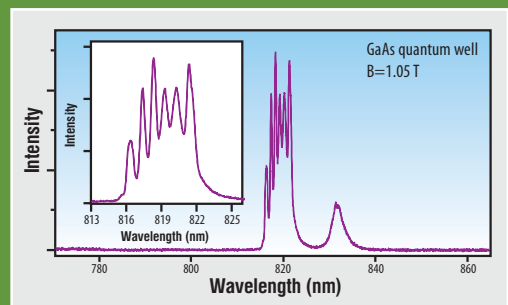
- > Low temperature luminescence measurements
- > A broad range of measurable characteristics
- > GaAs and AlGaAs luminescence spectrum measurements
- > Superior sensitivity
- > Highest resolution

### Benefits

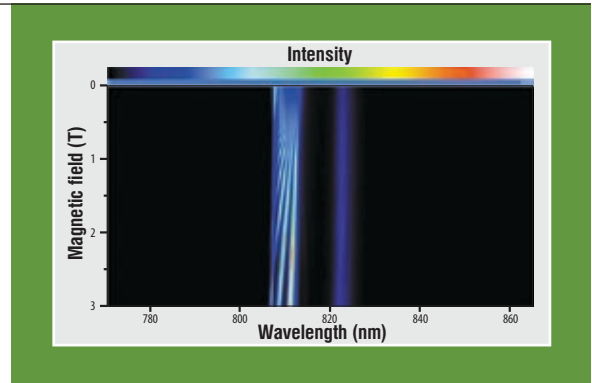
- > Lightweight and portable
- > Versality and easy-of-use
- > Fast and reliable results

### Applications

- > Semiconductor Industry
- > Scientific research



**EnSpectr L730<sup>®</sup>** Luminescence Spectrometer comes with a low-noise 3648-element linear-array CCD detector operating at a room temperature and a state-of-art system for suppressing the Rayleigh scattering signal and the straight laser light. **EnSpectr L730<sup>®</sup>** has an onboard programmable microcontroller that provides flexibility in controlling the spectrometer and accessories.



## EnSpectr L730<sup>®</sup> Luminescence Spectrometer Specification

Laser		Spectrometer	
Laser Wavelength	730 nm	Luminescent Spectral Range	775–870 nm
Laser Power	10 mW	Spectral Resolution (slit 30 $\mu\text{m}$ )	0.17 nm
		Spectral Resolution (slit 20 $\mu\text{m}$ )	0.12 nm

Detector		Optical Bench	
Detector Type	Linear CCD Array	Focal Length	75 mm
Pixel Number	3648	Entrance Aperture	30 (20 optional) $\mu\text{m}$ wide slit
Pixel Size	8 $\mu\text{m}$ x 200 $\mu\text{m}$	Grating	1800 g/mm holographic grating
Dark Current	630 e/pixel/s		
Readout Noise	30 e rms		
Dynamic Range	2100		
Integration Time	10 ms – 500000 ms		

Electronics		Physical	
Computer Interface	USB 2.0	Dimensions	265 mm x 165 mm x 65 mm
Power Input	100 – 240 VAC, 50 – 60 Hz	Weight	1 500 g
System Requirements	Windows XP/Vista/7		



## Enhanced Spectrometry Inc.

delivers innovative portable Raman and luminescent spectrometry solutions, specialized software and services across a broad range of industries worldwide.

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