

Gamma Scientific launches SpectralLED™ - the tunable LED light source



Typical programmed SpectralLED™ output profiles:

- Blackbody
- Daylight
- Fluorescent
- LED & CIE



The new SpectralLED™ tunable light source from **Gamma Scientific** combines the output of 30 discrete LEDs - each having a different centre wavelength - to produce output that can be programmed to closely match virtually any illuminant source or the spectrum of any illuminant reflected by a target.

SpectralLED™ can sweep through wavelengths to simulate a scanning monochromator, but with the advantage of no moving parts. In addition to superior spectral resolution and accuracy, the SpectralLED™ also offers about 10x higher brightness than any competitive product. This allows measurements over a much larger, linear dynamic range, and is sufficient to illuminate virtually any detector at levels up to saturation.

A combination of DC constant current drivers, optical feedback, and thermoelectric cooling maintains the source's high luminance accuracy in real time, allowing brightness to be varied directly (through drive current), rather than by pulse width modulation (PWM). This eliminates any flicker.

The SpectralLED™ will allow sensor, camera and system manufacturers to perform a wide variety of calibration and testing functions with a single instrument. Applications include smartphones and tablets, DSLR cameras, cinematography camcorders, diagnostic medical imaging, technical and industrial photography, or any OEM camera, sensor or detector application. White balance, spatial uniformity, defects, linearity, dynamic range, signal-to-noise, responsivity and ISO speed are specific tests the SpectralLED™ is ideally suited for carrying out.

For more information, please **contact us**.

Latest Lake Shore 7400 VSM achieves over 3.4 Tesla



Lake Shore's 7400 series **Vibrating Sample Magnetometer (VSM)** is the most sensitive VSM available today. This VSM features a noise floor of:

- 1.0×10^{-7} emu at 10 seconds per point sampling
- 4.0×10^{-7} emu at 1.0 second per point and
- 7.5×10^{-7} emu at 0.1 seconds per point

In addition to providing the lowest noise floor, the 7400's patented technology leads to a stability of 0.05% per day which surpasses the stability of any other commercial VSM.

Under full software automation it can measure and record hysteresis M(H) loops, torque curves, isothermal and DC demagnetisation remanence curves, and temperature dependent magnetic properties.

Models based on variable gap 4", 7" and 10" electromagnets are available, providing field strengths to above 3.4 T. While variable gap magnets allow for easy reconfiguration of the magnet gap to accommodate large samples of up to 1".

To discuss this product in more detail, please **contact us**.

Introducing benchtop test and measurement systems from OZ Optics



OZ Optics is one of the leading fibre optic suppliers in the world, with an outstanding reputation as a manufacturer of quality components for use in telecommunications, laboratory, industrial, military and medical fields.

OZ Optics' **benchtop test instruments** offer touchscreen interfaces, built-in memory, and USB 2.0 interfaces to deliver functionality for streamlining and automating the measurement process. The unprecedented accuracy and superior performance, along with these premium features, make them ideal for component and device testing. Elliot Scientific offers a range of meters for two different applications:

Backreflection

Benchtop backreflection meters (BR) from OZ Optics utilise one or two broadband SLED sources for stability and sensitivity, and can work with single mode, polarisation maintaining, or multimode fibres. Operating wavelengths available include 1060, 830 and 650 nm, and industry-standard telecommunication bands.

Polarisation Extinction Ratio

The Polarisation Extinction Ratio meter (ER) analyses light from a fibre, and reports the polarisation extinction ratio of the light, in dB, as well as the orientation of the polarisation with respect to the connector key on the fibre. Extinction ratios of up to 50 dB can be measured, and the orientation can be determined with 0.3° resolution.

For specifications and pricing of these OZ Optics' products, please **contact us**.

CryoSpectra lowers the temperature with introduction of new K90 cryorefrigerator system

CryoSpectra deliver the simplest way to bring cryogenic temperatures into a vacuum chamber through their uniquely designed cryorefrigeration systems. Now available with base temperatures from 75 Kelvin, these high cooling capacity systems are easily the best way to cryogenically cool laser crystals via a very small cold head.



The CryoSpectra K Series of low acoustic noise cryorefrigerators are especially designed for work in the lab. The closed-loop cooling system ensures maintenance-free operation, while the super-compact cold head guarantees an ultra-low vibration (0.5 nm peak to peak - [see vibration data here](#)) chilled surface for inside the vacuum chambers of high power laser systems.



Features

- High cooling capacity
- Cool-down time 20 minutes
- Compact cold head
- Practically vibration-free
- Low maintenance
- Quiet operation

Applications

- Laser crystal cooling
- High power laser amplifiers
- CEP stabilised laser systems
- Ti:Sapphire amplifier systems
- Quantum Cascade Lasers
- Cryopumping

Over a dozen models delivering between 75 and 170 Kelvin are available, with each cryorefrigerator offering a particular cooling capacity dependent on compressor size and whether it is air or water-cooled.

The 38 or 50 mm diameter gold-plated and polished cold heads are available with CFF or KF flanges for easy attachment, eliminating the need for costly custom vacuum chambers. The unique, compact design also allows for a reduction in chamber size, leading to better vacuum conditions and the benefit of reduced pump down times. For more information, please [contact us](#).

Next week, Elliot Scientific will be exhibiting at the...



Photonex London Roadshow

11th April 2016
Imperial College
London