Elliot Scientific

solution science for research and industry

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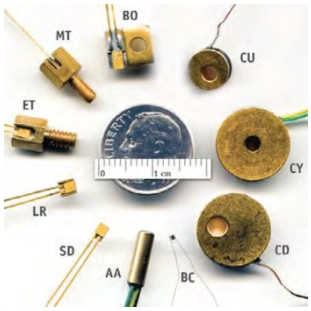
Lake Shore's Cryogenic Temperature Sensors get their own page on elliotscientific.com



Lake Shore also offer a wide range of temperature controllers and monitors

Lake Shore offer four types of sensor for cryogenic temperature measurement: diodes, resistors, capacitors and thermocouples. Each has its own particular features, and these can be easily seen *at-a-glance* via our new **Cryogenic Temperature Sensors page**.

For example: Of the three most common NTC resistor materials, sputter-deposited zirconium oxy-nitride aka **Cernox™** - the others being Germanium and Ruthenium Oxide (Rox™) - is the most versatile. Cernox™ thin film resistors are only manufactured by Lake Shore Cryotronics, and incorporated into robust sensor packages.

Cernox™ works over a broad temperature range, is not constrained by a standard curve response, has sensitivity below 1 K, and is highly resistant to ionising radiation and magnetic field-induced errors. These features can be instantly seen on the page via our colourful graphics:

0.1 to 420	✘	✔	✔	★★★ (1 K +)

In all, nine different temperature sensor materials are detailed and an informative datasheet is available to **download**. However, Elliot Scientific does still recommend **contacting us** for expert advice on sensor choice for your application.

Single Crystal Fiber Lasers are in the news: Taranis covered by *Laser Focus World*

- Pulse widths under 900 fs
- Tunable repetition rate from 0.1 to 2 MHz
- Excellent beam quality M2 < 1.3
- Peak power up to 100 MW

The **Fibercyst FEMTO** is a powerful industrial femtosecond pulse width laser for high quality micromachining, offering output powers up to 25 W for high throughput.

Typical applications include: cutting and drilling of hard materials, cold machining polymers or composites, and micromachining / structuring of surfaces, especially glass, ceramics and sapphire.

A key feature of this laser is the ability to easily and quickly change the repetition rate to favour the average power or the energy per pulse.

Taranis SCF Technology

Fibercryst's ultra-fast lasers utilise their revolutionary Taranis Single Crystal Fibre (SCF) amplifier modules to enable higher energy per pulse, higher average power, and easy to use flexibility between energy and repetition rate, and better beam qualities from small footprint devices.

In the February issue of ***Laser Focus World*** magazine, an informative article about Fibercryst's innovative Single Crystal Fiber amplification technology has been published. You can read ***Single crystal fibers amplify power in ultrashort-pulse lasers*** here.

Further details about this, Fibercryst's **Amplifier**, or their other products can be obtained by **contacting us**.

Flip frame eye protection delivers practical benefits for laser operators

NoIR LaserShields are now shipping the CE-certified Frame 40 spectacle. With its novel flip mechanism, which allows for a secondary filter to be brought into play in certain applications, users can benefit in situations where a modification of the passband of the fixed filter is required.

In this example, the fixed filter is clear FG1 mineral glass for IR sources above 900 nm, and the secondary filter is the pink AXX which blocks IR in between 700 and 900 nm. Please **contact us** for more details.

CRAIC Technologies' 508 PV™ adds advanced spectroscopy to your microscope

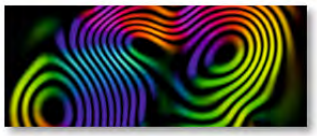
The **CRAIC Technologies' 508 PV™** UV-visible-NIR spectrophotometer is designed to be added to a microscope's open photoport or a probe station for high-resolution colour image capture and non-destructive analysis of the spectra of many types of microscopic samples.

The 508 PV™ features CRAIC's cutting edge Lightblades™ spectrophotometers which can acquire spectra from microscopic sample areas by absorbance, reflectance, polarisation, luminescence and fluorescence. Typical applications include:

- MEMS devices
- Material characterisation
- FPD colour masks, OLEDs and LEDs
- Surface plasmon resonance
- Mineralogy and vitrinite coal reflectometry
- Photoreceptors and semiconductors
- Optical thin film thickness
- Process contamination analysis

Please **contact us** for more details about this or any other **CRAIC Technologies** products.

Next month, meet Elliot Scientific at...



Magnetism 2017
3rd and 4th April 2017
University of York

SU2P
5th and 6th April 2017
Heriot Watt University, Edinburgh

OPIE'17: OPTICS & PHOTONICS International Exhibition
19th to 21st April 2017
Yokohama, Japan

We can be found in the Autex booth

INTERMAG 2017
24th to 28th April 2017
Dublin, Ireland

We can be found on the Lake Shore Cryotronics stand

Products 2016

Optical Tweezers 2016

Opto-Mechanics 2013

Previous Newsletter

2016 Newsletters

2015 Newsletters

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