

## Energetiq Technologies' EQ-77 - a new high brightness Laser Driven Light Source



**ENERGETIQ**

**Energetiq Technologies** has released details of their new **EQ-77**, an extremely bright and broadband - from 170 nm through to visible and beyond - light source.

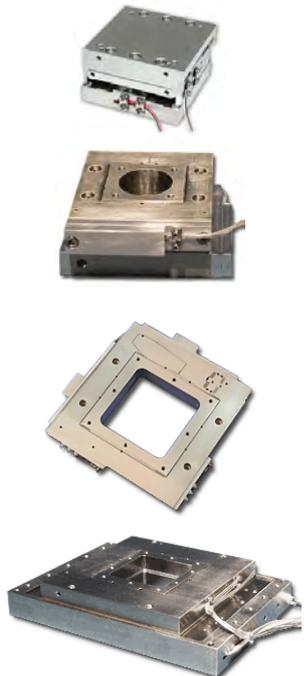
The EQ-77 offers the highest radiance and irradiance available (Up to 4x that of the current **EQ-99** model) in a truly broadband white light source with a choice of dual-beam output or a single-beam output with retro-reflector.

Specifically designed for critical spectroscopy and imaging applications, the EQ-77's superior spatial and power stability ensures highly repeatable measurements are delivered by a variety of applications in the life and materials sciences.

The proprietary laser-driven bulb technology developed by Energetiq is known as **LDLST<sup>TM</sup>** - short for Laser-Driven Light Source. This enables the extreme high brightness and offers lifetimes an order of magnitude longer than traditional multi-lamp systems.

Please **contact us** for more details.

## MadMotor<sup>TM</sup> and the Mad City Labs Nano-UHV Series



The **Mad City Labs'** engineering team understands the rigorous requirements of the ultra high vacuum environment, and so they ensure their designs always deliver robust and reliable operation. Mad City Labs offers a selection of positioning stages for use under UHV conditions as follows:

### MadMotor<sup>TM</sup>-UHV

For heavy-duty movement, the MadMotor<sup>TM</sup>-UHV is an aluminium micropositioning system driven by piezo motors that offers high precision alignment of up to 6 kg over a 10 mm travel range at temperatures up to 150 °C. Systems can be supplied with 1, 2 or 3-axes, and all are provided with a matching Mad-Drive<sup>TM</sup> controller.

### Nano-UHV Series

The Nano-UHV50 and Nano-UHV100 are dual-axis XY nanostaging systems constructed from vacuum compatible materials. They offer 50 and 100 micron ranges respectively.

The Nano-UHV200 is a 3-axis XYZ system, delivering 200 microns of travel in each direction. Unlike the smaller models, it is constructed from non-magnetic titanium and 316 stainless steel.

All of these stages are equipped with internal position sensors to provide absolute and repeatable position measurement with picometre accuracy, all are bakeable at up to 100 °C, and all have apertures for access or an optical pathway.

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

**MCL**  
MAD CITY LABS INC.

## New RLR Raman Fibre Lasers from IPG Photonics



**IPG Photonics** makes a number of fibre laser systems available specifically to the research community. Latest among the models on offer are a series of Raman fibre lasers.

### CW Raman Fibre Lasers

The RLR series of Raman fibre lasers incorporate IPG's high power pump diodes to offer a superior pump source over other techniques such as frequency multiplexed single-mode laser diode combiners. The lasers operate over a wide temperature range without requiring thermoelectric coolers (TEC), delivering proven high reliability, efficiency and powers up to 100 W.

Based on a Ytterbium fibre laser and a Raman wavelength shifter, the initial IPG YLP single-mode fibre laser outputs wavelengths between 1050 and 1120 nm, while the cascaded Raman resonator utilising Bragg fiber gratings efficiently converts this to the chosen output wavelength. For example, 1064 nm converts to 1480 nm. The output is single-mode and randomly polarised.

For more information about these or other lasers IPG offers through Elliot Scientific, please **contact us**.



## Fibre-optic temperature measurement system is immune to RF and microwave interference

Sensor immunity to electromagnetic interference and harsh environments makes the **Neoptix™ Reflex™** ideal in many manufacturing, power generation or research applications where multi-channel temperature measurement is required.

With its 4-channel capability, the fibre optic system based on proven GaAs technology ensures several 'hot spots' can be measured simultaneously. This allows for better temperature mapping on industrial processes or scientific experiments. The sensors used non-conductive and immune to electrical interference.

The standard Reflex™ measures over a temperature range of -80 to 250 °C with a resolution of 0.1 °C. Lower starting points, or higher end points, can be ordered on request.

For more about Reflex™ or other products from **Neoptix™**, please **contact us**.



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