Sneak Preview

Photonics West, San Francisco, Calif., Feb. 1-6, 2014

PHOTONICS MEDIA
THE PULSE OF THE INDUSTRY

Issue 3 January 21, 2014

LAZERMaster™ Laser Splicing System

AFL's LAZERMaster glass processing and splicing system uses a CO_2 laser heat source rather than electrodes, ensuring repeatable performance, low maintenance, and eliminating electrode or filament maintenance and instability. Ideal for ultra-high strength splicing, adiabatic tapering and other glass-shaping operations.

AFL See us at booth 115

www.AFLglobal.com

Micro PMT Lineup Expanded

New Micro PMT products from Hamamatsu include assemblies (Micro PMT + voltage divider) and modules (Micro PMT + voltage divider + HVPS) with 300-650 nm or 300-850 nm spectral response. Visit booth 1313 for more info.

Hamamatsu Corporation See us at booth 1313

www.hamamatsu.com

ULC is the One Stop Solution

For all your optical component requirements - thin film coatings, polished and precision machined optics and hand molded optical blanks. Providing State-of-the-Art Metrology and the largest inventory of certified fused silica and optical glasses in the world.

United Lens Company, Inc. See us at booth 2311

www.unitedlens.com

Not Just a "New" Laser Sensor

COHERENT

We'll show you how to measure power instantly, increase throughput and improve process control with our new sensor technology. Come see our live demo in booth 1522 at Photonics West or go to our website now to request more information.

Coherent, Inc. See us at booth 1522

www.coherent.com

Photodiodes and Value-Added Solutions

OSI Optoelectronics will showcase high-performing standard and OEM photodiodes, high-power light sources, optoelectronic components, and value-added assemblies. OSI offers vertical integration including complete product engineering and design, manufacturing, assembly, and inspection services. Stop by and see OSI Laser Diode and OSI Ferson Technologies also in Booth 2029.

OSI Optoelectronics See us at booth 2029, South Hall

www.osioptoelectronics.com

New PI-MAX4 emICCD Cameras

PI-MAX4 *em*ICCD cameras combine, for the first time, the advantages of intensifiers (i.e. ultrashort, subnanosecond exposure times) and the benefits of EMCCDs (i.e., linear gain and high quantum efficiency) to provide single-photon sensitivity and quantitative performance for scientific imaging and spectroscopy applications.

Princeton Instruments See us at booth 1823

www.princetoninstruments.com

Exemplar Plus Smart Spectrometer

The Exemplar® Plus; a direct replacement of the QE65000, is a TE Cooled /Back-Thinned CCD spectrometer with 2x the dynamic range and resolution. It offers cutting edge features like ultra-low trigger delay (95ns, +/- 20ns), USB3.0, pulse-chain-output, different scanning modes (Burst, Smart and Normal), and an embedded processor for on-board averaging, smoothing and dark compensation.

B&W Tek, Inc. See us at booth 910

www.bwtek.com

IRD Glass - Your Glass Experts!

IRD Glass specializes in manufacturing custom precision optical and non-optical components for laser OEMs. IRD partners closely with you to assure you receive exactly what you need. IRD Glass currently supplies such components as reflectors, mirrors, precision pressure tubes and mounts, cylindrical and spherical lenses, cuvettes, windows, sub-assemblies, prisms, wedges, and thin-film coatings. Ask about our Double Guarantee!

IRD Glass See us at booth 4327

www.irdglass.com

Cobolt Introduces Cobolt Pulsed Lasers

Announcing the Cobolt Thor™ Series of high performance Q-switched lasers at 1064nm, >7kHz, and <5ns pulse widths and the Cobolt Odin™ Series of compact and tunable Mid-IR lasers, wavelength selectable 2-5µm and tunable up to 50nm.

Cobolt AB See us at Hall 1, Booth 2619

www.cobolt.se

Freeform and Micro-Machined Optics

Fresnel Technologies, Inc., leader in manufacturing of optics, offers from concept to production the latest innovation in ultra precision diamond machined and molded conventional and freeform optics, as well as micro-machining and integration.

Fresnel Technologies, Inc. See us at booth 8934

www.fresneltech.com

Win a FREE Alluxa Hard Coating Run

At Alluxa we develop and deliver the highest performing optical filters at competitive prices using our unique, proprietary coating process. Try Alluxa coatings in your application with a FREE coating run. Click here to register and see full prize details.

Alluxa

www.alluxa.com

TAG Lens: Using Sound to Shape Light

Come see the world's fastest varifocal lens: TAG Optics will be demonstrating the award-winning TAG Lens and how it adds functionality to existing products from inspection and biological microscopes to laser processing systems. Visit us and learn how extended depth-of-field and ultra-fast variable-focus can enhance optical capabilities.

TAG Optics Inc. See us at booth 5244

www.tagoptics.com

2014 Photonics West

Wide-ranging Plenaries at SPIE Photonics West

A major draw at SPIE Photonics West each year are the plenary talks, presented under the LASE, OPTO and MOEMS/MEMS conferences. This year's speeches are no exception, providing well-rounded topics to appeal to all technical attendees.

At the LASE plenary, which begins Wednesday, Feb. 5 at 10:20 a.m., Photonics21 President and Jenoptik AG CEO Michael Mertin will speak on "Photonics21 and the Perspectives from the European Photonics Industry."

The European Commission recognized the potential of photonics to strengthen Europe's industrial and innovation capacity and consequently declared photonics as a Key Enabling Technology. Photonics21 as partner of the European Commission developed a Multiannual Strategic Roadmap which aims at boosting European photonics along the whole innovation chain with special focus on the gap between generating knowledge and products. The roadmap will be realized in a public-private partnership between the European photonics industry and the European Commission until 2020.

After Mertin, Koji Sugioka, senior research scientist at Riken in Japan, will address "Femtosecond Laser 3-D Micromachining and its Applications to Biochip Fabrication." Sugioka will explain that femtosecond lasers have opened up new avenues in materials processing due to their unique characteristics of ultrashort pulse widths and extremely high peak intensities that induce strong absorption in even transparent materials, such as functional biochips. In his talk, Sugioka will detail the fabrication procedure of biochips using the femtosecond laser and applications of such chips.

Michel Meunier, professor of engineering physics at Ecole Polytechnique de Montréal, will present "A New Plasmonics Enhanced Ultrafast Laser Multi-Nanoscapel." Meunier will speak on a new technique recently introduced to perform nanosurgery in living cells using a laser multi-nanoscapel. He will explain that the laser multi-nanoscapel shows promise as an innovative tool for fundamental research in biology and medicine as well as an efficient alternative nanosurgery technology that could be adapted to therapeutic tools in the clinic.

Silicon photonics and ultrafast thin-disk lasers are the focus of the OPTO plenary, held Tuesday, Feb. 4 beginning at 8:30 a.m. Cornell University's Michal F. Lipson will begin with her presentation, "Pushing the Boundaries of Silicon Photonics." Lipson, a professor in the School of Electrical and Computer Engineering, will provide an overview of recent advances and challenges in on-chip photonics. She will describe ultrahigh speed devices that enable one to change the structure's optical properties on a time scale shorter than the photonic time of flight, leading to novel applications such as optical isolators on a silicon chip.

Lipson will be followed by professor Ursula Keller of ETH Zurich in Switzerland, who will speak on "The Previously Unbelievable Performance of Ultrafast Thin Disk Lasers." She will explain that, with semiconductor thin disk lasers, an average power of <1 W can be obtained with both femtosecond and picosecond pulses and a pulse repetition rates ranging between 100 MHz to 100 GHz.

The MOEMS/MEMS plenaries will feature engineering professor Roger T. Howe of Stanford University speaking on "Electrostatic Nano Electromechanical Switches (NEMS) for Energy-Efficient Digital Systems;" Cornelia Denz of the University of Münster in Germany explaining "Tailoring Light for Optically-Guided Nano- and Microassembly: From Bio-Hybrid Robots to Droplet Cages;" and John A. Rogers, of the University of Illinois talking about "Bio-Integrated and Bio-Inspired Optical Microsystems."

Stop by our booths!

Visit Photonics Media at Booth 8701 during BiOS or Booths 700 and 701 during Photonics West, pick up the inaugural issue of Photonics Media's Industrial Photonics magazine or the January issue of our flagship publication, Photonics Spectra. Test your "light IQ" by playing our Light Masters game of photonics industry logos and/or trivia during the BiOS exhibition and you're registered for the drawing of a Google Nexus 7 tablet. There will also be Nexus 7 drawings daily for Light Masters players during the Photonics West Exhibition, as well as a random drawing on Feb. 6 for $300 in gift cards from Amazon! And as always, you can visit us online at www.photonics.com

photonics.com

Photonics Media
PO Box 4949 · Pittsfield, MA 01202-4949
Tel: (413) 499-0514 · Fax: (413) 442-3180 · advertising@photonics.com · www.photonics.com