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Thursday, March 6, 2014

## New Technique Visualizes Live Cells



A new optical imaging platform represents a significant step toward a longstanding scientific goal: visualizing small biomolecules inside living biological systems with minimum disturbance. A team at Columbia University has developed a new general method to image a broad spectrum of small biomolecules, such as molecular drugs and nucleic acids, amino acids and lipids, for where they are localized and how they function inside cells.

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**Martin Hermatschweiler**  
CEO of Nanoscribe GmbH  
Photonic Professional GT  
Category of Advanced Manufacturing

**Nanoscribe – Photonic Professional GT**  
Martin Hermatschweiler, CEO, of Nanoscribe GmbH describes their new product, the Photonic Professional GT, which is the highest resolution and fastest 3-D printer on the market. Nanoscribe won the Prism Award for the Advanced Manufacturing Category.

## Optical Nanocavity Boosts Light Absorption

An optical nanocavity that boosts light absorption in ultrathin semiconductors could potentially improve solar cells and cameras, and maybe even harvest energy more efficiently.

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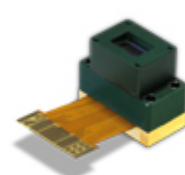
## Quantum Droplets Form in Laser-Shot Semiconductors

The accidental discovery of a new quasiparticle that behaves like a drop of liquid could provide a better understanding of solid-state devices such as semiconductors and superconductors.

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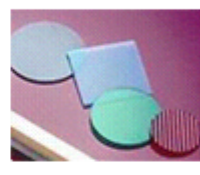
## Products on PhotonicsBuyersGuide.com



### Necsel Green Laser

**Necsel**  
A Prism Award winner, the Necsel Green Laser uses patented frequency-converted technology to offer customizable wavelengths from 530nm to 555nm.

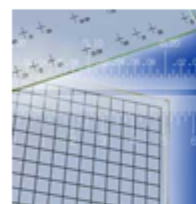
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### Precision Optics Manufacturing

**Ferson Technologies**  
Ferson Technologies manufactures stock and custom precision optical components including spherical lenses, prisms, windows, mirrors, cylindrical optics, filters and domes.

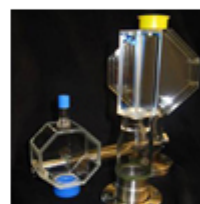
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### Machine Vision Metrology Standards

**Max Levy Autograph**  
Max Levy specializes in standard and custom metrology standards for the machine vision and related optical inspection industry. Products available from the X-ray out to the infrared.

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### Cold Atom Cells

**Triad Technology**  
Triad Technology provides products and services to aid the cold atom research. We offer custom vacuum cells and systems optimized for research and devices based on cold atoms.

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### GoPhoton! Brings Photonics to the Masses

A new outreach project aims to bring photonics closer to the general public by educating society about its universal nature and the role it plays in our everyday lives.

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### Elusive Solar Light-Trapping Limit Nearly Reached

The theoretical limit of light-trapping in solar cells has eluded researchers for decades. But a group from Delft University of Technology has come closer to it than anyone else.

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### IR Lasers Enable Touchless Smartphones

A new proximity detector could allow future smartphones to respond to touchless commands by distinguishing between as many as eight hand gestures.

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In this edition of the industry's **premier weekly newscast**: An elusive solar light-trapping limit is nearly reached, a new imaging technique visualizes live cells, and a mysterious quantum droplets are discovered.

### OSA Names Bonenfant Scholarship Winner

Margaret Cron has been named the 2014 recipient of the OSA Foundation's Paul Anthony Bonenfant Memorial Scholarship.

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### IBM Sets Record for Data Transfer Speeds

IBM has set a new record for short-range data transmission that proves the existing technology remains up to snuff.

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### Rofin-Sinar Acquires FiLaser

Laser developer and manufacturer Rofin-Sinar Technologies Inc. has acquired FiLaser USA.

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## WHITE PAPER



### Real-time Profiling for Focusing, M2, Divergence & Alignment

DataRay Inc.

Beam intensity profiling is an essential tool in many aspects of photonics. The precise intensity distribution in a focused laser beam is critical in many applications: flow cytometry, laser printing, medical lasers, and cutting lasers are just a few examples. Intensity profile measurements can characterize and improve a product or process, leading to substantial cost and time savings that can pay for the measurement instrument many times over. This white paper describes how the unique, patented, real-time multiple z-plane XYZTF capabilities of the BeamMap2 slit-scan profiler can speed and simplify laser assembly alignment.

[DOWNLOAD WHITE PAPER >>](#)

## Industry Events

### OFC 2014 - Mar. 9, 2014 - Mar. 13, 2014 · San Francisco, CA



OFC 2014 offers high quality science and comprehensive programming with invited presentations given by experts in the field. Also featured are peer-reviewed technical presentations, up-to-the-minute research presented in postdeadline sessions, short courses covering a broad range of topic areas, and notable plenary session featuring exceptional keynote speakers.

Interactive workshops and panel discussions keep attendees engaged, and poster sessions, trends, insights and analyses by leaders in the field at Service Provider Summit and Market Watch as well as extensive free show floor business programming keep them informed.

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