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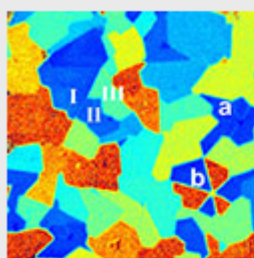
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# PHOTONICS.com

Thursday, May 15, 2014

## Researchers Probe Graphene Alternatives with SHG



Using ultrafast IR pulses, researchers from the Lawrence Berkeley National Laboratory have discovered a new way to study the optical and electrical properties of 2-D metals that could compete with graphene in semiconductor and other applications.

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## Diamond Enhances Laser Beams

A team from Macquarie University has discovered how to increase the quality of high-power laser beams by exploiting the optics of a diamond.

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## Nanoscope Can Probe Chemistry on the Molecular Scale

A new imaging technique using broadband IR synchrotron light has enabled the in-depth study of complex molecular systems.

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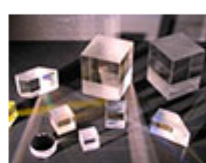
## Products on PhotonicsBuyersGuide.com



### Wavelength Reference Cells

**Triad Technology**  
Our wavelength reference cells are grouped in two categories: Vapor Cells and Gas Cells. The purity level of the natural elements used in manufacturing all vapor cells is greater than 98%.

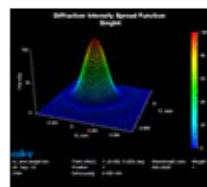
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### Manufacturing & Coating Services

**Perkins Precision Developments**  
At Perkins Precision Developments we take pride in meeting exact customer requirements. Optical fabrication work is performed in-house using qualified material suppliers.

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### Optical Design Software

**Synopsys, Inc.**  
CODE V® Optical Design Software version 10.6 further enhances its industry-leading design optimization capabilities with an innovative new optimization feature.

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### Infrared and Ultraviolet Detectors

**Kentek Corp.**  
Kentek's View-It® Infrared and Ultraviolet detectors feature a high-efficiency, laser-sensitive material that provides an unlimited viewing period for both pulsed and continuous wave lasers.

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## More Articles on Photonics.com

### Bard College Gets \$500K Grant for Microscopy Suite

Bard College has won a three-year, \$500,000 Scientific Equipment Program grant from the Sherman Fairchild Foundation for the creation of a new microscopy suite.

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### Nanocrystal Tags Aid Rapid Pathogen Detection

Tunable nanoparticles could pave the way for screenings that identify thousands of target molecules simultaneously.

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### Fiber Sensor Detects Trace Amounts of Explosives

A new optical fiber sensor detects explosives in extremely low concentrations, which could mean big things in the fight against terrorism.

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In this edition of the industry's **premier weekly newscast**: Nanocrystal tags aid in pathogen detection, researchers probe graphene alternatives, a fiber sensor detects explosives, and Photonics Media's Laura Marshall shares highlights from this year's SPIE DSS conference.

### NIST Awards Advanced Manufacturing Grants

Two projects aimed at advancing photonics manufacturing have been awarded grants from the National Institute of Standards and Technology.

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### Tin Replaces Lead in Promising Solar Cell

A new solar cell, developed by a team from Northwestern University, promises enhanced efficiency and a smaller environmental footprint.

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### Test Environment Planned for Next-Generation Devices

A new test environment is being planned to facilitate the creation of next-generation photonic and electronic devices, as part of a three-year project funded by the European Commission.

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## Industry Events

### Optatec 2014 - May 20-22, 2014 · Frankfurt, Germany

This international trade fair for optical technologies, components and systems provides the optical industry with important information, communication and business platforms.



The event will focus fiber optics, photovoltaics, LED solutions and safety systems, as well as production and medical technology. Other topics to be addressed will be energy and material efficiency, conservation of resources and environmental protection.

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## PHOTONICS MEDIA

THE PULSE OF THE INDUSTRY



### FEATURED VIDEO



**Eric Bergles**  
VP of Sales & Marketing

### BaySpec – Handheld Hyperspectral Imager

Eric Bergles, Vice President of Sales and Marketing at Bayspec, talks about the Prism nominated OCI-1000. BaySpec has developed a highly-integrated spectral imager that provides a detailed view of the spectrum for every point in an image. Eventually, small handhelds could be adapted for use in outpatient medical clinics to check our skin for melanoma or other illnesses.

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