

PHOTONICS spectra



Monthly newsletter from the editors of Photonics Spectra, with features, popular topics, new products, and what's coming in the next issue.

From the Editor's Desk



Biomedical Imaging Breakthroughs

MIKE WHEELER, MANAGING EDITOR

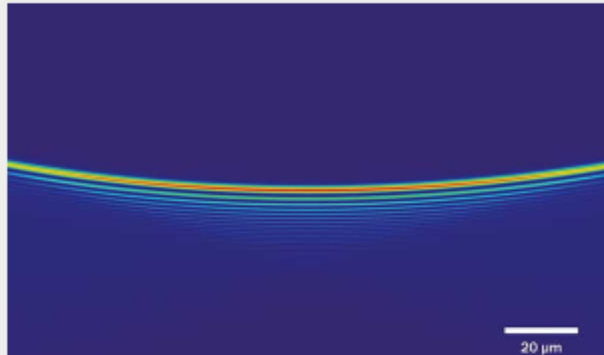
Water concentrations in human tissue, it turns out, are a good indicator of whether or not cells are cancerous. That's led to increased interest in the emerging field of terahertz imaging, which promises delineation between healthy cells and cancerous ones. The problem: limitations in the performance of current THz sources and detectors.

Which brings us to Pierre Gellie's "Breakthrough for Real-Time THz Imaging". Gellie, a winner of a Prism Award this year, walks through enhancements made to quantum cascade lasers — from optimizing the beam profile to achieving cryogenic operating temperature — required for the compact THz sources.

[Read Article](#)

Airy Beam Light-Sheet Microscopy Holds Promise for Life Sciences Imaging

Airy light-sheet microscopy has great potential to help further research and clinical diagnoses through its ability to image larger 3D volumes of tissues and organoids. Developed in the last three years, it is best-suited to the fields of regenerative medicine, cancer biology, neuroscience and developmental biology, as ALSM can acquire images, as well as 3D datasets, with higher resolution over larger fields of view than its predecessors.



[Read Article](#)

Reality Check

Germany is known as "the land of ideas" in the photonics industry. France has become a top contender in optics and photonics innovation. And now, Australia, China, Japan and others in the Asia-Pacific region are swiftly emerging as major players in photonics technology, research and development.



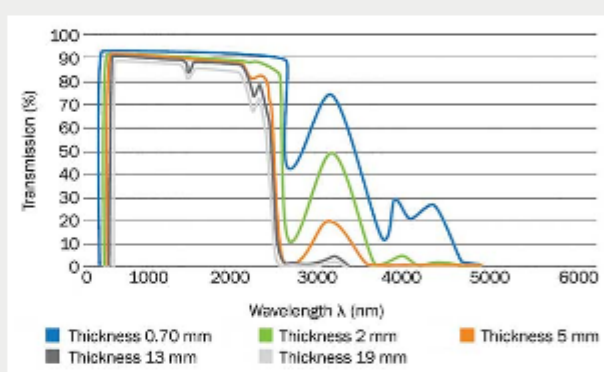
[Read Article](#)

sponsors

In Case You Missed It

Specialized Optical Mirrors Set to Unlock the Universe's Darkest Mysteries

Large telescopes all across the world stare into the sky day and night, waiting to uncover the secrets of the cosmos. For the Hobby-Eberly Telescope, the world's third-largest optical telescope, located at The University of Texas at Austin's McDonald Observatory, that means setting its sights on one of the most mysterious forces in the universe — dark energy.



[Read Article](#)

GE Oil & Gas Begins New Manufacturing Lines

GE Oil & Gas has reported implementation of two advanced manufacturing lines in its Italian plant, using robots to optimize and accelerate cycle times. A new nozzle production line is the company's first completely automated line, and a new additive manufacturing line will use laser technology to 3D print end burners for gas turbine combustion chambers.

[Read Article](#)

Planetary Resources Secures Funding for Earth Observation

Asteroid mining company Planetary Resources Inc. has secured \$21.1 million in Series A funding to deploy and operate Ceres, an advanced Earth observation business. Ceres is set to use the first commercial IR and hyperspectral sensor platform to better understand and manage natural resources.

[Read Article](#)

Featured Products



High Specification CW Polarized Fiber Laser for Research Applications

Kimmon Koha Co. Ltd.

Introducing Kimmon Koha's model KKFL-20 fiber laser. With its single mode operation and a polarization ratio of >250:1 it is a perfect pumping source for SHG / THG.

[Visit Website](#) [Request Info](#)



Micro Injection Molding

Accumold

is a high-tech manufacturer of precision micro, small and lead frame injection molded plastic components.

[Visit Website](#) [Request Info](#)

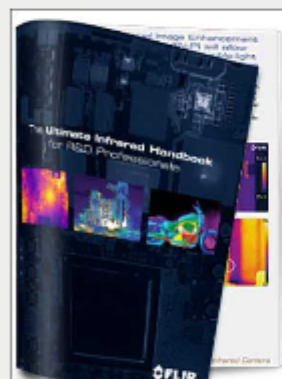


Precision Impedance Analyzer and LCR Meter

Zurich Instruments AG

With the launch of the 5 MHz MFA, Zurich Instruments is introducing a new type of impedance analyzer and precision LCR meter.

[Visit Website](#) [Request Info](#)



Ultimate Infrared Handbook from FLIR

FLIR Systems Inc.

FLIR, the industry leaders in thermal technology offer The Ultimate Resource Guide for Using Infrared in the Research and Development Industry.

[Visit Website](#) [Request Info](#)

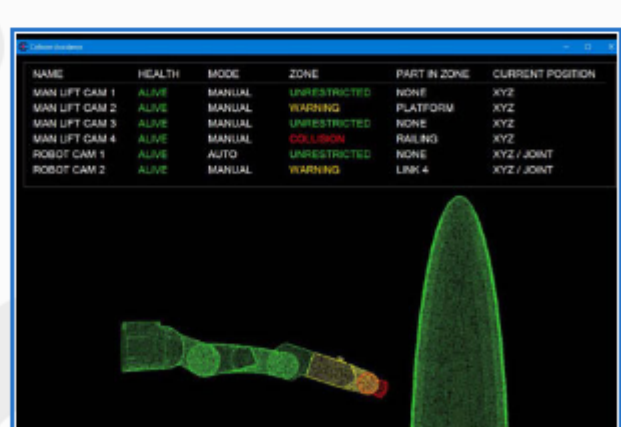
Webinars

Robotic Collision Avoidance - When Accidents Are Not an Option

Thu, Jul 28, 2016 1:00 PM - 2:00 PM EDT

Join us for a FREE webinar on how to ensure worker safety and productivity in dynamic manufacturing environments. Tim Dykstra, product sales manager for Concept Systems Inc., will provide a detailed overview of the technologies and systems that can be used to avoid collisions between robots and their environment and between robots and humans.

[Register Now](#)



Coming in August...

Features

Ultrafast Lasers; Optical Metrology; Biophotonic Imaging; 3D Printing; Graphene

Issue Bonus

Brand Survey with Custom Report; Annual Reader Issue

Photonics Media is currently seeking technical feature articles on a variety of topics for publication in our magazine *Photonics Spectra*. Please submit an informal 100-word abstract to Managing Editor Mike Wheeler at mike.wheeler@photonics.com or use our online submission form www.photonics.com/submitfeature.aspx.

About Photonics Spectra



Since 1967, *Photonics Spectra* magazine has defined the science and industry of photonics, providing both technical and practical information for every aspect of the global industry and promoting an international dialogue among the engineers, scientists and end users who develop, commercialize and buy photonics products.

Stay current with a **FREE subscription** to the digital or print edition.

[View Digital Edition](#) [Subscribe Free](#)