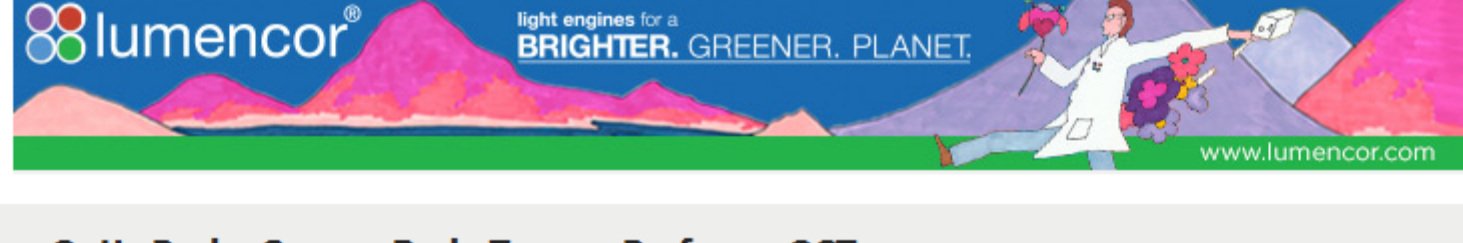


BIOPHOTONICS

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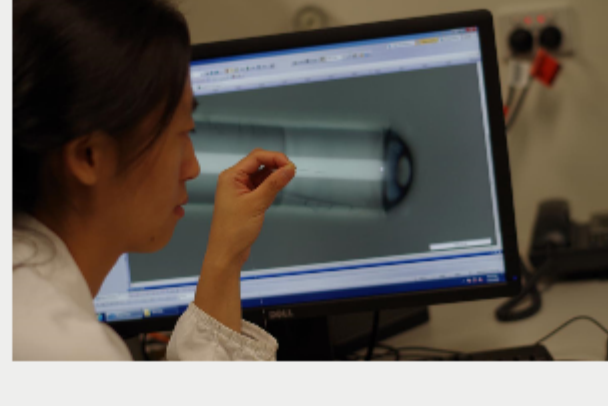


Monthly newsletter focusing on how light-based technologies are being used in the life sciences. Includes news, features and product developments in lasers, imaging, optics, spectroscopy, microscopy, lighting and more. Manage your Photonics Media membership at Photonics.com/subscribe.



Tiny Fiber Optic Probe Senses Body Temps, Performs OCT Imaging

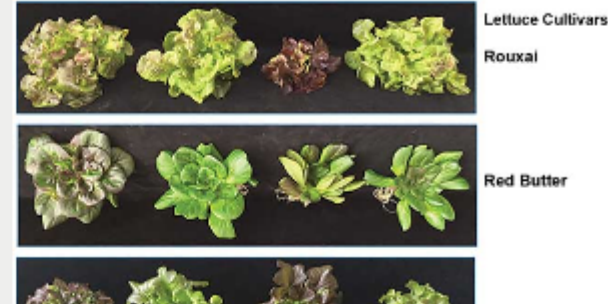
A miniaturized fiber optic probe has been invented that can simultaneously measure body temperature and take images deep inside the body. The single-fiber-based image and sensing probe uses an OCT lens fabricated at the distal end of a double-clad fiber. The fiber has a thin layer of rare-earth-doped tellurite glass to enable temperature measurements. The high refractive index of the tellurite glass enables a common-path interferometer configuration for OCT, allowing easy exchange of probes for biomedical applications.



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The McCree Curve Demystified

LEDs hold great promise for controlled-environment agriculture. Developing the right strategy requires the means to establish the optimal wavelengths and spectral ratios. The McCree curve has been used to provide a means to establish the optimal wavelength selections and spectral ratios for different crops. However, it is often misinterpreted and is often misrepresented in internet resources. What does the McCree curve tell us? And is this the right strategy to use when engineering horticultural LED systems?



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3D Printing Creates Patient-Specific Implants

Laser-assisted manufacturing can build devices that shorten surgery time, improve results, and speed recovery. Laser sintering, commonly called 3D printing, enables the manufacture of PSIs and is one of the most prominent additive manufacturing processes. It relies on a digital 3D model that, in the case of medical implants, can be extracted from medical imaging techniques such as CT scans or MRI.



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In Case You Missed It

Remote Noninvasive Sensor Monitors Multiple Bioparameters

Photonic-based sensing is an evolving field that provides a large variety of possible biomedical applications for home care diagnosis. Various aspects of light and photons can grant us the ability to create smart sensors based on imaging tools for detecting motion, spectroscopy for detecting the presence of various chemicals (according to their absorption spectra), or even analyzing the properties of spatial distribution of the scattering of light interacting with an inspected tissue.



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Certara Acquires Analytica Laser

Drug development consultancy company Certara LP has acquired Analytica Laser, a consultancy for medicine and health technology.

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Photonic Hook Could Enable Optical Manipulation of Nanoparticles

A curved photonic nanojet, called a photonic hook, was created using an asymmetric cuboid, formed by appending a triangular prism to one side of a cube.

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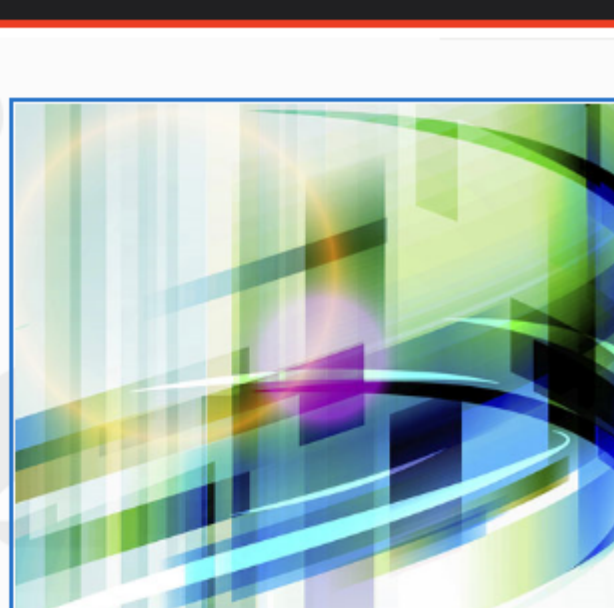
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Webinars

Holography for Display: From AR to HUD to 3D

Tue, Jun 12, 2018 1:00 PM - 2:00 PM EDT
Because holograms have the advantage of being thin and light, they are finding application in the fields of augmented reality and head-up display, where constraints on the size and weight of the optics exist. Holograms can also be used for integral imaging-based 3D display, lensless projection, and lidar beam steering. Professor Pierre-Alexandre Blanchon from the University of Arizona will discuss the advantages of holography in all of these areas and the technological advantages of holography over other techniques. This webinar is sponsored by RPMC Lasers Inc. and UnikLasers Ltd.



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