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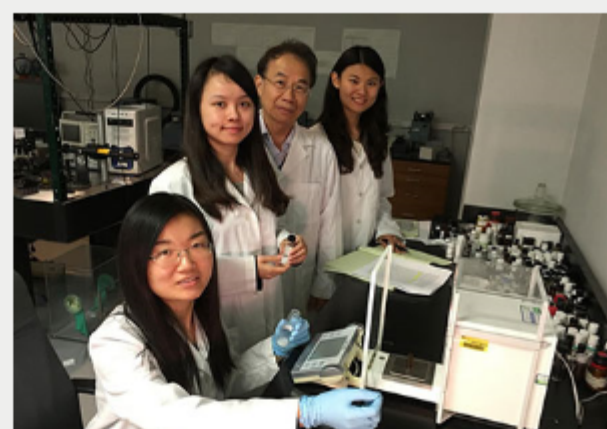
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Top Stories

Novel Mixes Expand Operating Temperature Range for LCDs

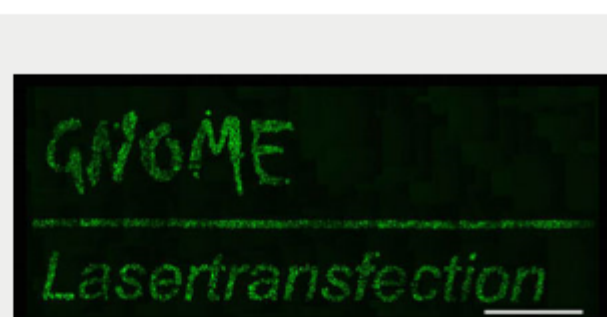
An experimental liquid crystal (LC) mixture has been shown to function properly in temperature range of -40 to about 100 °C, an improvement over current technologies used in automobile displays, smartphones and televisions, for example, which grow blurry and sluggish in extreme temperatures. A team of researchers led by professor Shin-Tson Wu at the University of Central Florida formulated three new liquid crystal mixtures with a wide nematic range, small visco-elastic coefficient and low activation energy.



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Gold Nanoparticle-Based Laser System Modeled for Cell Transfection

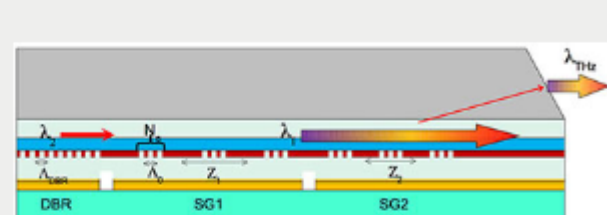
An optically induced method has been modeled for an efficient and cell-preserving transfection — the delivery of DNA or RNA into eukaryotic cells — in high-throughput screening. The functional model for a gold nanoparticle-based laser transfection was reported by the Laser Zentrum Hannover e.V. (LZH) and its partner, working within a project of the Industrial Joint Research (IFG) of Germany's Federal Ministry for Economic Affairs and Energy.



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Security Detection Device Features Stable THz Source

A security detection device based on a terahertz source has overcome the size, complexity and cost typical of terahertz devices. The device, which detects explosives, chemical agents and dangerous biological substances from safe distances, could make public spaces more secure.



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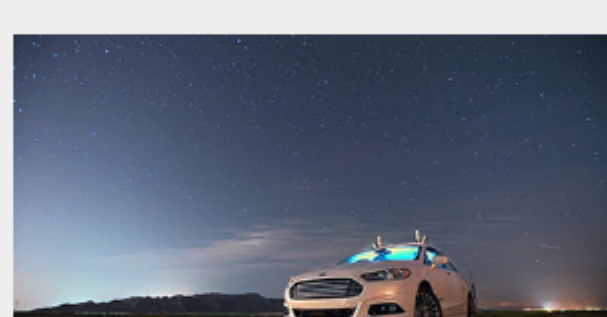
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Ford Autonomous Research Vehicles Use Lidar to Drive without Headlights

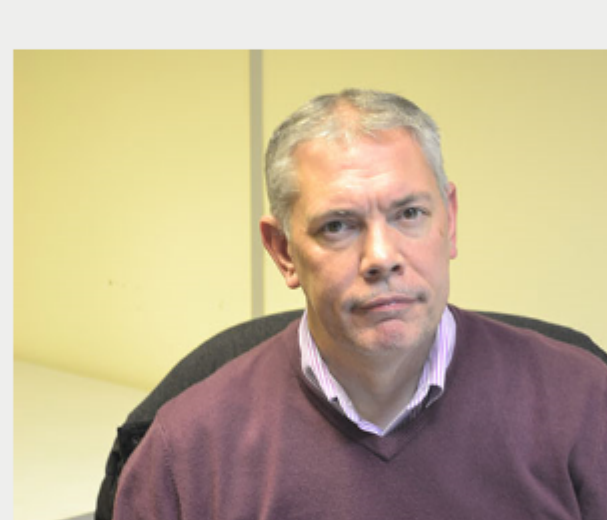
A recent test at the Ford Motor Company's Arizona Proving Ground demonstrated the Ford Focus's ability to use lidar sensor technology and 3D maps to drive in the dark without headlights. Ford said the development shows that even without light-dependent cameras, the lidar system and virtual driver software can successfully steer around winding roads. While it's ideal to have all three available modes of sensors — radar, cameras and lidar — the latter can function independently on roads without stoplights.



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Resolve Optics Appoints Peter Chamberlain Production Manager

Resolve Optics Ltd. said it has hired Peter Chamberlain to fill the newly created position of production manager for the company. The key responsibilities of Chamberlain's position will include production planning, ensuring orders are produced on time, maintaining and improving product quality and production processes, management of ISO 9001 and 14001 accreditation, as well as identifying and implementing training requirements.

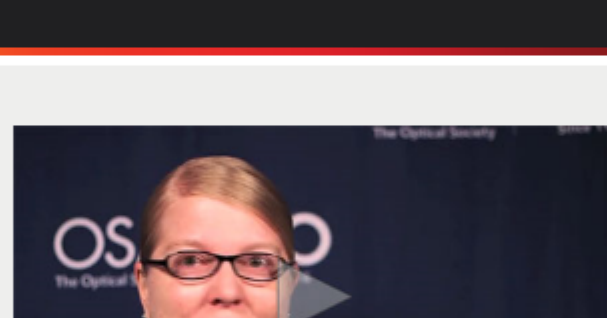


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OSA Centennial - Amy Oldenburg - University of North Carolina

The Optical Society members share their reflections on 100 years of optics innovation, what inspired their interest in the field and how OSA has impacted their career.



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Featured Products

Optical Digital Laser Rotary Encoder

CANON U.S.A.
Canon R-1 series Laser Rotary Encoders offer high performance (high resolution, accuracy, and precision) in a very compact 36mm diameter body.

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Optical Wavemeter

New Focus
New Focus is introducing its first Wavemeter, the WM-1210. This easy-to-use instrument requires minimal setup and provides optical wavelength measurements in the 700 – 1650 wavelength range with ±1 ppm accuracy and 10 Hz update rate.

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Laser Safety Portable Barriers

KENTEK Corporation
Kentek's portable barriers are an alternative to laser safety curtain systems and are available in Flex-Guard™, Ever-Guard® and laser-safe acrylic materials.

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InGaAs Photodiodes

Fermionics Opto-Technology
Fermionics Opto-Technology manufactures InGaAs photodiodes for optical communications, test instrumentation, sensing, and medical applications.

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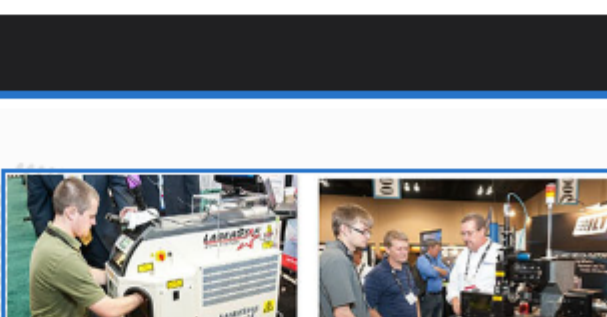
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