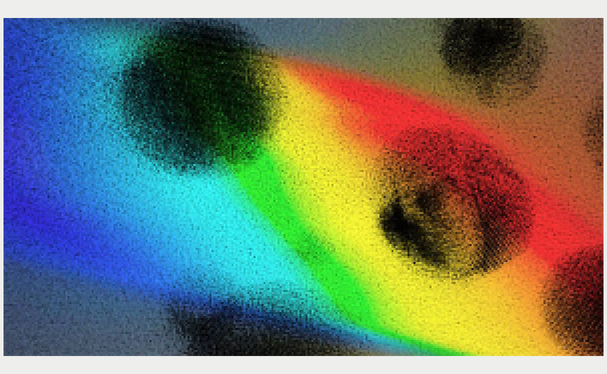
Thursday, September 20, 2018

This Week In
PHOTONICS

PHOTONICS MEDIA

Top Stories

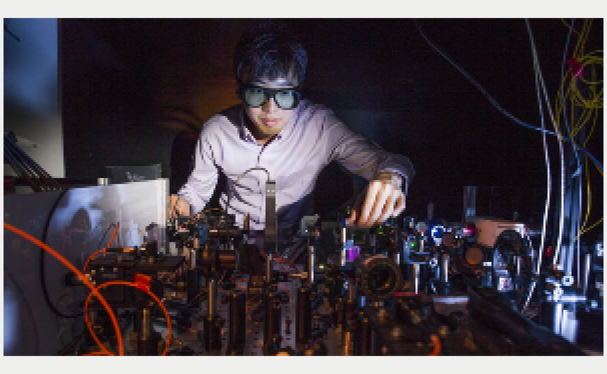
Enhanced Photosensors Exploit Wavelength-Shifting Properties of Nanoparticles



Scientists are using nanotechnology to improve the ability of photodetectors to handle the UV radiation produced in high-energy physics experiments. Currently, most available detectors have poor response in the UV so it is typically necessary to shift UV to a wavelength matching the sensitivity of the detector.

Read Article

Miniature Lens Could Enable Fast Transfer of Quantum Information



A tiny camera lens, invented by an international research team, could one day be used to link quantum computers to an optical fiber network. The lens is made of a silicon film with millions of nanostructures that form a transparent metasurface.

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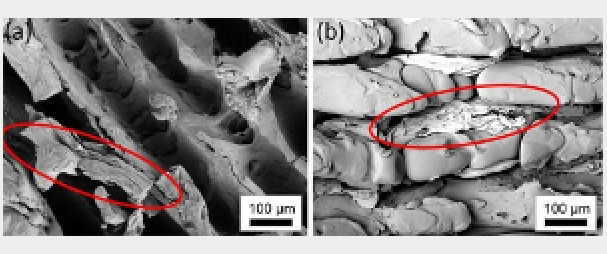
Laser Technique Binds Aluminum with Plastic in Injection Molding



A group of German engineers recently demonstrated a technique for binding plastic to aluminum by pretreating sheets of aluminum with IR lasers. The researchers found that roughening the surface of aluminum with continuous laser beams created a mechanical interlocking with thermoplastic polyamide and led to significantly strong adhesion.

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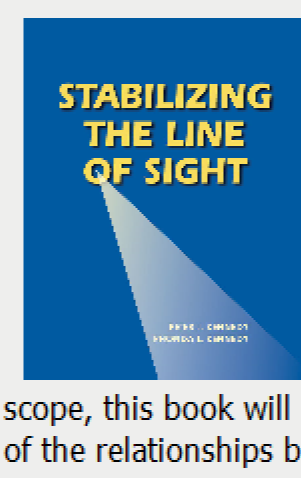
Featured Products

Stabilizing the Line of Sight



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In Stabilizing the Line of Sight, authors Peter J. and Rhonda L. Kennedy provide a methodology and an example for executing a successful end-to-end line-of-sight (LOS) design. Comprehensive in scope, this book will give readers a better understanding of the relationships between the various engineering disciplines that are required for successful LOS control.

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Alluxa Ultra Series Filters and Coatings

Alluxa
Alluxa Ultra Series Filters, including Narrowband, Dichroic, UV, IR, and Notch filters, provide the highest performance optical thin film solutions available today. For example, the Ultra Series Flat Top Narrowband filters offer the narrowest bandwidths and squarest filter profiles in the industry.

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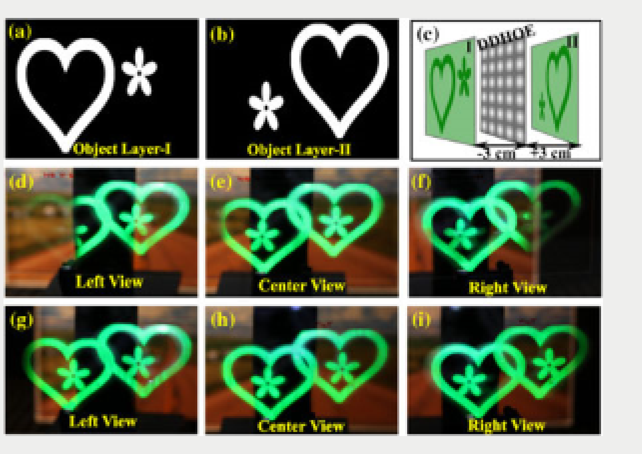
More News

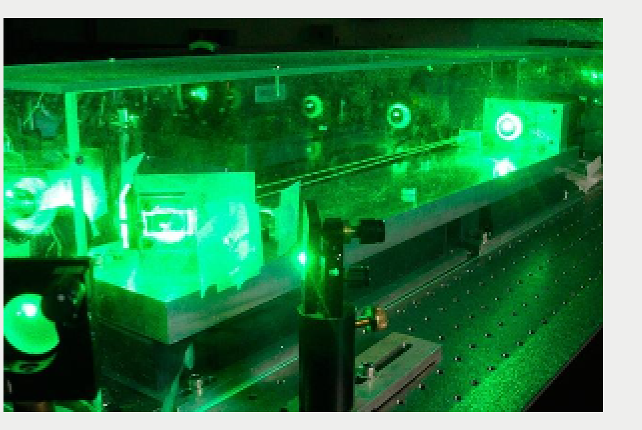
Digital Approach to Fabricating Holograms Could Eliminate Bulky Optics in 3D Displays



Through a combination of holography and light-field display, researchers hope to eliminate visual disturbances in augmented and virtual reality (AR/VR) and other 3D technologies without the addition of bulky optics. The researchers found a way to record a hologram digitally, using a process that requires none of the optical components to be physically present during recording.

Read Article

Single Laser Source Generates Six Entangled Waves, Setting a New Record



Scientists have demonstrated the entanglement of six light waves generated by an optical parametric oscillator (OPO). In previous experiments, the team entangled two and three modes using the OPO. The team's current experiments have doubled the space available for information to be encoded.

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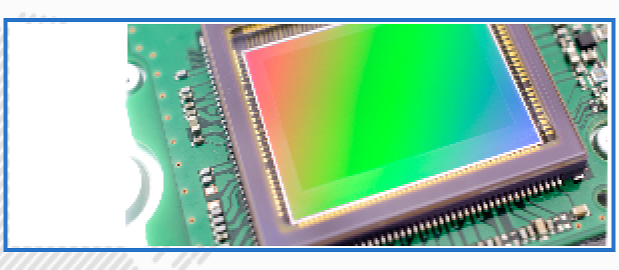
Industry Events

Image Sensors America 2018

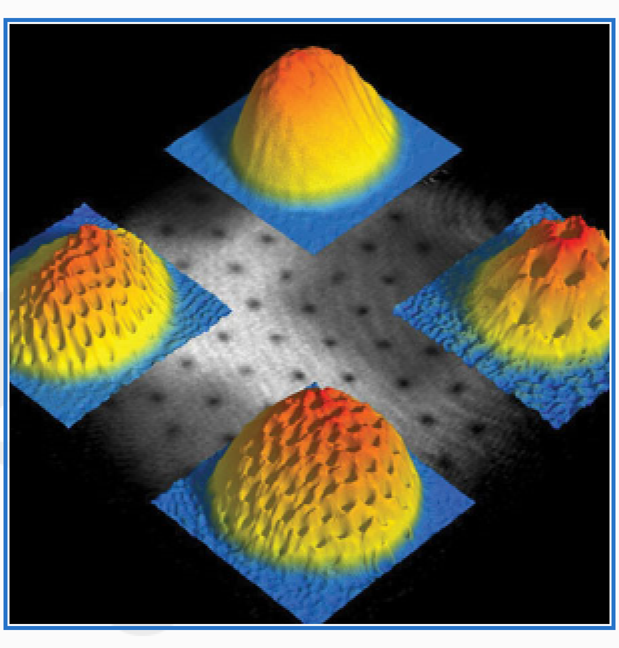


October 10-12, 2018 - Hyatt Centric Fisherman's Wharf San Francisco - San Francisco United States
Image Sensors Americas 2018 will bring together end-users, camera system suppliers, sensor design houses, and technology developers to network with over 150 attendees from across the image sensing value chain, including Amazon, SONY, Thermo Fischer Scientific, Hamamatsu Photonics, and others. Attendees will have the opportunity to learn from leaders in the sensors market, including ON Semiconductor, imec, ImmerVision, TowerJazz, and others. The conference will provide a comprehensive overview of future trends to ensure you stay ahead of the competition, with a robust program featuring sessions on machine and deep learning, supporting technologies, future outlooks, industry 'next steps', and much more.

More Info

Webinars

Imaging Applications in Quantum Research



Wed, Sep 26, 2018 1:00 PM - 2:00 PM EDT
This webinar, presented by Princeton Instruments, will begin with an overview of quantum technology, including a brief history of its origin and development. The discussion will also include emerging practical applications for quantum technology. The webinar's main focus will be on quantum applications that incorporate imaging detectors such as single photon source development, trapped ion imaging, and control of qubits. The webinar will also cover unique detector requirements for quantum research, the latest developments in photonic detectors, and basic concepts of single photon detection, quantum efficiency, and detector noise.

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