

# This Week In PHOTONICS

PHOTONICS MEDIA



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## Top Stories

### 2018 Prism Awards Winners Shine

The 2018 Prism Awards for Photonics Innovation brings out the best of the best. Companies from around the world were among 30 finalists for the awards that recognize the industry's top innovations and groundbreaking technology. This year's awards shone a spotlight on 10 winners during the annual ceremony on Wednesday evening, Jan. 31.



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### RF Reference Transmitted Over Fiber Optics Could Reduce Reliance on Atomic Clocks

Researchers have demonstrated that a stable radio-frequency (RF) reference can be reliably transmitted more than 300 km over a standard fiber optic telecommunications network and used to synchronize two radio telescopes. The new technology could allow scientists anywhere to access the frequency standard simply by tapping into the telecommunications network, regardless of whether they have access to an atomic clock.



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### Light-Triggered Nanoparticles Show Promise in Treatment of Cancer

A new study could expand the use of phototherapy for treating metastatic disease. Researchers have demonstrated the treatment of disseminated cancer by delivering photoactivatable drugs within tissues and inside cells in vivo.



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## Featured Products



### IsoDyn™ – Coating Complex Shapes

**Deposition Sciences Inc. (DSI)**  
DSI developed IsoDyn™ coating technology to overcome the

limitations of traditional methods in producing uniform coatings on highly curved parts, or components with complex three dimensional shapes. The unique IsoDyn process enables volume production of uniform, multi-layer, high performance, high laser damage coatings...

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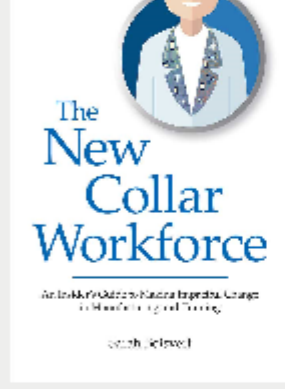


### Pioneering sCMOS Back Illuminated!

**PCO-TECH Inc.**

To see or not to see: If every single photon counts, PCO's back illuminated sCMOS camera system pco.panda 4.2 bi can lead you to the answer. Enabled by PCO's new back illuminated sensor and based on the latest innovations in sCMOS technology, the pco.panda 4.2 bi reaches a quantum efficiency of up to 95%.

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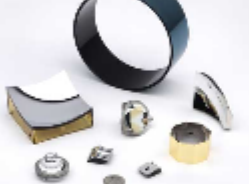


### The New Collar Workforce

**Photonics Media**

U.S. manufacturing companies are expected to face a shortage of two million skilled workers by the year 2020, according to reports. As a result, manufacturers and educators are looking for real, actionable ideas to train workers, reduce the shortfall and realize the potential of the new age of manufacturing.

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### Custom Diamond-Turned Optics

**Diverse Optics Inc.**

Diverse Optics Inc. specializes in single-point diamond-turning of custom polymer optics. For over 30 years, we've manufactured the most challenging polymer optic components and assemblies for leading defense, medical, and commercial applications with advanced technology and an experienced team of professionals.

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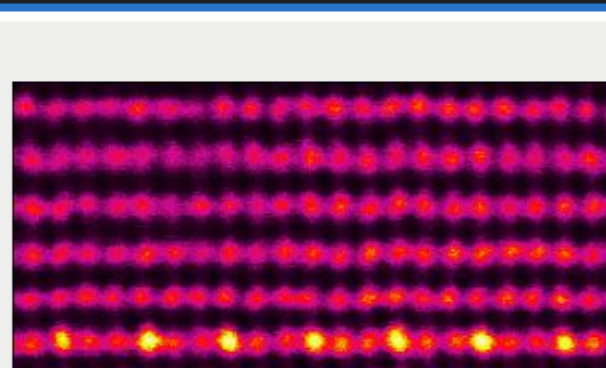
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## More News

### Key Solid-State Lighting Material Limitation Discovered

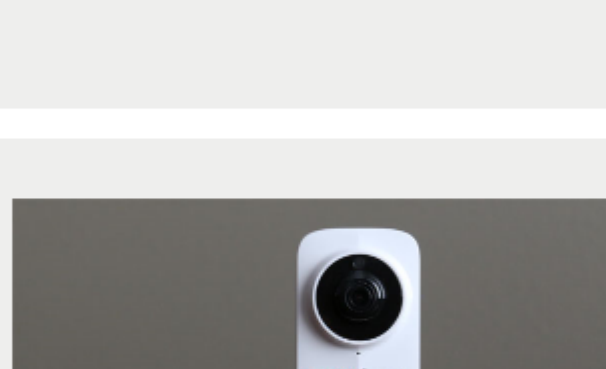
An international research group has discovered the core mechanism that limits the indium (In) content in indium gallium nitride (InGaN) thin films, a key material for making blue LEDs. In an effort to push the indium content to the limit, scientists grew single atomic layers of indium nitride (InN) on gallium nitride (GaN).



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### Remote System Uses Video, Algorithms to Monitor Baby's Heart Rate and Breathing

A technology that estimates heart rate using a video camera and software could lead to new applications in the medical equipment and consumer markets. But first, the technology will be used to help new parents rest easier by remotely monitoring the heart and breathing rates of their sleeping babies.



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## More Headlines

**Magneto-Optical Q-Switched Laser Generates Unpolarized Light** [Read Article](#)

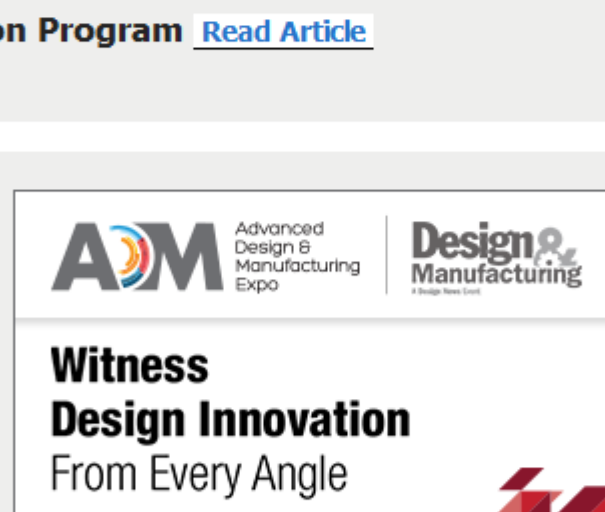
**Schott Casts First Segments for ESO's Extremely Large Telescope** [Read Article](#)

**Osram Opto Semiconductors' IR Lasers Deployed for Assisted Driving** [Read Article](#)

**England's NPL Uses Arden Conditioners for PhotInd Metrology Project** [Read Article](#)

**Block MEMS Reaches Phase II of IARPA Explosion Detection Program** [Read Article](#)

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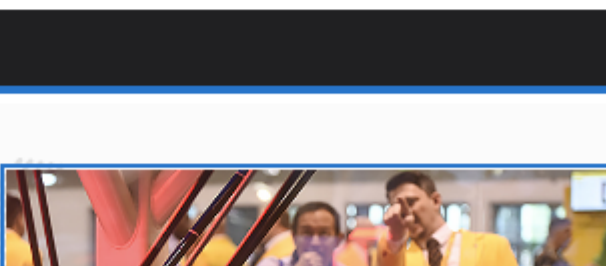


## Industry Events

### Advanced Design & Manufacturing 2018

March 7-8, 2018 - Huntington Convention Center - Cleveland United States

The Advanced Design & Manufacturing Expo in Cleveland will bring five established industry events together into one unparalleled experience. Design & Manufacturing (D&M), the Automation Technology Expo (ATX), Medical Design & Manufacturing (MD&M), PLASTECH, and PACK will be featured as zones on the ADM Expo in Cleveland floor, giving you access to an array of solutions to drive your projects forward. The free ADM conference will provide you with unlimited access to four tracks focused on medtech, battery technology and smart manufacturing.



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ConnectZone has been supplying quality cables for the computer, storage and data networking space for over 11 years. Not only do we provide a broad selection of standard fiber and copper cabling for datacenter products, we also specialize in custom cable solutions with exceptionally fast turnaround times.



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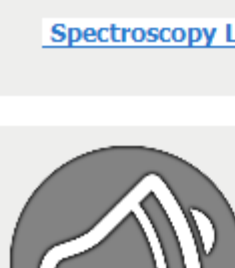
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Questions: [info@photonics.com](mailto:info@photonics.com)

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