Wednesday, July 05, 2017

PHOTONICS IN DEFENSE & AEROSPACE

PHOTONICS MEDIA

A quarterly newsletter presenting significant developments in the use of photonics in the vital defense and aerospace industries.

Defense & Aerospace News

Free-Space Optical Communications Comes of Age

It has taken a few decades for engineers to achieve a critical mass of system concepts and technologies for free-space optical communications. Developers around the world have now demonstrated all the most challenging parts of the technology, and we can now state that free-space optical communications is finally taking hold in a number of classical and novel markets.

Read Article

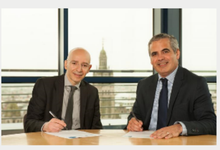
Surveillance Robots Share and Interpret Images

A new system that allows a team of robots to share and interpret information as they move around could enable these same robots to relieve humans of dangerous jobs such as disposing of landmines, cleaning up after a nuclear meltdown or surveying the damage after a flood or hurricane.

Read Article

Strathclyde, BAE Systems Form Research Partnership

The University of Strathclyde has signed a strategic framework agreement with multinational defense, security and aerospace company BAE Systems PLC to strengthen a long-term relationship in research, education and consultancy.



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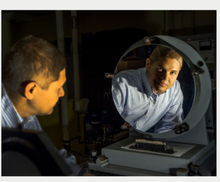
NASA Investigates Optical Coatings for Far-UV Spectral Range

To meet the projected goals for its next generation of space telescopes, NASA is taking on a new optical challenge — the fabrication of protective coatings for mirrors to be used for astrophysics studies in the Lyman Alpha range. So far, no one has developed a coating that effectively protects and maintains an aluminum mirror's high reflectivity in the 90- to 130-nm range. At this spectral regime, scientists can observe an assortment of spectral lines and astronomical targets.



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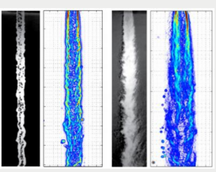
Planar Laser-Induced Fluorescence Measures Jet Disintegration Quantitatively

Spectroscopic diagnostic techniques were used to analyze the fundamentals of sub- to supercritical jet disintegration and mixing. The research could lead to a better understanding of the precise dynamics of fuel breakup and dispersion, impacting the way rocket engines, gas turbines and diesel engines are built.



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Clemson Receives Funding from DoD for Laser Weaponry Research

Two researchers at Clemson University are taking different but complementary approaches to creating a high-energy laser that could be used as a weapon. The engineers are receiving a combined $3.2 million from the U.S. Department of Defense (DoD) to help fund the research.

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Elbit Systems of America Awarded Lockheed Martin F-35 Contract

Defense systems developer Elbit Systems of America LLC has been awarded a contract by Lockheed Martin Aeronautics to develop a cockpit display replacement for the F-35 aircraft.

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Featured Products

MIDORI™ UDC3 Portable LED Light Source

USHIO America Inc.

For decades, Ushio America, Inc. has consistently provided high quality illumination products in specialty markets world-wide. Responding to needs of customers with discerning applications, Ushio engineers have developed an exceptional LED portable light source.

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Low Noise Frequency Combs for Defense Applications

TOPTICA Photonics Inc.

TOPTICA's DFC Core and DFC Core+ can be used in a large variety of applications- by locking a frequency comb to a reference, it can be used to create low-noise microwave radiation for radar generation. It also can act as a precise frequency reference in optical clocks or as advanced atomic frequency standard for GNSS applications.

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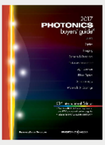

The 2017 Photonics Buyers' Guide - Special Offer

Photonics Media

If you buy products and services related to lasers, optics, imaging, sensors, detectors, test and measurement, light sources, fiber optics, spectroscopy, materials and coatings -- you need the Photonics Buyers' Guide. Our editors verify all 4000+ company listings annually.

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