Wednesday, December 20, 2017

euro PHOTONICS

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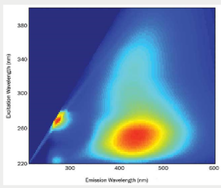
Quality, Durability, Relability Critical for Solar Photovoltaics

Making decisions that ensure the quality, durability and reliability of a photovoltaic (PV) is crucial for the development, installation and lifetime of a system. There are multiple ways in which these three attributes can be designed into all stages of the PV lifecycle in order to improve system performance. There are two factors in determining system components during the selection stage: vendors and products.

Read Article

Fast EEF Spectroscopy Quantifies Unstable Samples



Fluorescence spectroscopy is used routinely to analyze all types of luminescent samples, from solid materials for semiconductor devices to fluorescent probes for medical imaging. And in a mixture of many fluorescent compounds, it is possible to identify each one by its combination of excitation and emission wavelengths.

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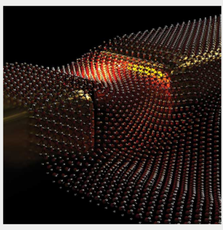
Thin 2D Materials Pack a Heavy Punch



Two-dimensional materials such as graphene, as well as composite materials such as the layered semiconductor germanium selenium, could have a big impact on myriad applications. Composite materials that act as a single-photon emitter may be valuable in quantum information technology, where being able to produce a single photon on demand enables new applications. As for graphene, it has optical properties that potentially may make it useful in commercially important areas such as the IR transceivers used for data communication.

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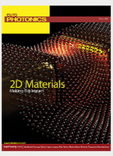

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Featured Products

Eight Bright Solid-State Light Sources

Lumencor Inc.
Lumencor's new SPECTRA III Light Engine® is here, with

- Eight independent solid-state light sources
- Spectrally optimized DAPI, CFP, GFP, YFP, Cy3, mCherry, Cy5 and Cy7 excitation
- ~0.5W per output channel from a standard liquid light guide

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PM Coupler Arrays

Evanescent Optics Inc.
Splice-free cascaded PM couplers can be manufactured as 1 X N and 2 X N coupler arrays with any output ratios and at wavelengths from 0.45um to 2.04um. PER is better than -24dB per coupler, with loss typically less than 0.1dB per coupler. The program "Cascade" models the output characteristics and can be downloaded from the company's website.

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New Revolutionary LIV Test Instrument

Yelo Limited
The LIV Test Instrument a revolutionary design by Yelo and is used for verify the operating characteristics of laser devices. The system performs accurate LIV, Spectrum and Farfield measurements via a touchscreen user interface, by simply plugging in the laser device to be tested.

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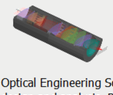

FRED Optical Engineering Software

Photon Engineering LLC
Photon Engineering develops FRED, Optical Engineering Software for imaging, illumination, design and analysis. Provides engineering services for all product development phases including specification, conceptual through detailed optical design, system analysis, tolerancing, customer and vendor interfacing and more.

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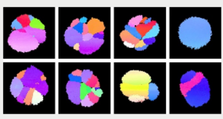
More News From Europe

Single Nanoparticle Maps Pave the Way for Better Nanotechnology



A method that combines electron microscopy and optical microscopy to map individual nanoparticle responses in different situations and contexts could pave the way for better nanomaterials and safer nanotechnology.

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Physicists Identify Optimum Conditions for Laser Plasma Acceleration

Laser plasma acceleration, which has a smaller footprint and higher peak currents than conventional electron accelerators, could be the basis for the next generation of compact light sources. To make laser plasma acceleration practical for future applications, researchers have developed a method to increase beam stability and quality.

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Single Photon Reveals Quantum Entanglement of 16 Million Atoms

Scientists have demonstrated entanglement between 16 million atoms in a crystal crossed by a single photon, reinforcing the quantum theory that entanglement can persist in macroscopic physical systems.

Read Article

Coming in the Next Issue...

Features
Optics; Silicon Photonics; Imaging for Defense & Security

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