Thursday, April 15, 2021

This Week in PHOTONICS

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.: Top Stories

Simple Laser Delivers High-Dimensional, Quantum-Like Classical Light
An international team from China and South Africa used a laser to create an arbitrary dimensional light that team members characterized as "quantum like." Using a simple laser commonly available in university teaching labs, the team showed eight-dimensional, classically entangled light.

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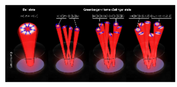

Reverse-Tapering Approach Links Structurally Dissimilar Optical Fibers
A team of researchers from Fudan University has achieved robust mode matching between structurally dissimilar optical fibers, using a "reverse-tapering" approach to deliver ultralow-loss and high-strength fusion splices between standard single-mode fibers (SMFs) and ultralarge mode-area photonic crystal fibers (ULMA-PCFs).

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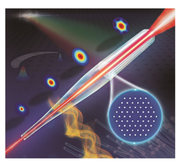

Broadband MIR Source Facilitates Fiber, Fiber Optics-Based Sensing
A light source that generates a highly stable broadband mid-infrared (MIR) beam in the wavelength range of 2.5 to 3.7 µm and that, in testing, maintained its full brightness due to its high beam quality supports the simplification of fiber optic-based environmental monitoring systems.

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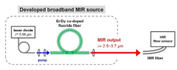

.: *Photonics Spectra* Optics Conference

Presentation: "Optical Filters: A Commodity? Technologies and Applications"
Presented by: Oliver Pust, HOYA Optics Europe

High-performance optical filters are essential to the ability of end-users to perform precision optical measurements. Understanding the performance capabilities and function of optical filters — and considering them from the beginning of the design process — helps customers avoid the realization that filters with the requirements for a desired application cannot be designed.

In his presentation, Oliver Pust provides a technical and market-centric overview of optical filters in 2021 in a session spanning current and emerging trends, technologies, and applications. Pust, HOYA Optics Europe's director of sales and marketing, additionally shares insights on the importance of involving the filter manufacturer throughout the design and manufacturing processes so as to help customers avoid encountering blind spots and unnecessary costs.

Pust's presentation will be available starting at 9:30 a.m. EDT on April 28.

Additional sessions will include the keynote, "From the Design Lab to the Factory Floor: How Optics Manufacturers Move Swiftly from Concept to Creation," from Ulrike Fuchs, vice president of strategy and innovation at asphericon; an optics market analysis on the effects of COVID-19, from Tom Hausken, senior industry adviser at The Optical Society (OSA); and "Optical Coatings: A Full Spectrum of Solutions," from Dan Fiore, vice president of North American Coating Laboratories (NACL).

The two-day *Photonics Spectra* Optics Conference runs April 27-28. Registration is free for the event, which is offered exclusively online. For more information and registration, please visit www.photonics.com/pso2021. Continued coverage of this inaugural event will also be available on Photonics.com leading up to the conference.

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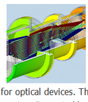

Improving the Design of Optical Devices Through STOP Analyses
Wed, May 12, 2021 2:00 PM - 3:00 PM EDT
There is an ever-increasing interest in structural-thermal-optical performance (STOP) analysis for optical systems, in which temperature change and structural loads affect the optical performance. In this presentation, guest speakers Kyle Koppenhoefer, Ph.D. and Joshua Thomas from AltaSim Technologies will join Christopher Boucher of COMSOL to discuss the development of STOP solutions for optical devices. The webinar will also include a live demo in the COMSOL Multiphysics® software and an open Q&A session. Presented by COMSOL, Inc.

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.: All Things Photonics

Western New York (specifically, the city of Rochester) is a globally recognized hub for optics, photonics, and imaging innovation. From titans Kodak and Xerox to an industry's reemergence from a global pandemic, New York Photonics' Executive Director Thomas Battley discusses how one industry (specifically, one cluster) blends contributions from industry, academia, and government to drive economic growth and scientific progress.

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