

PHOTONICS spectra



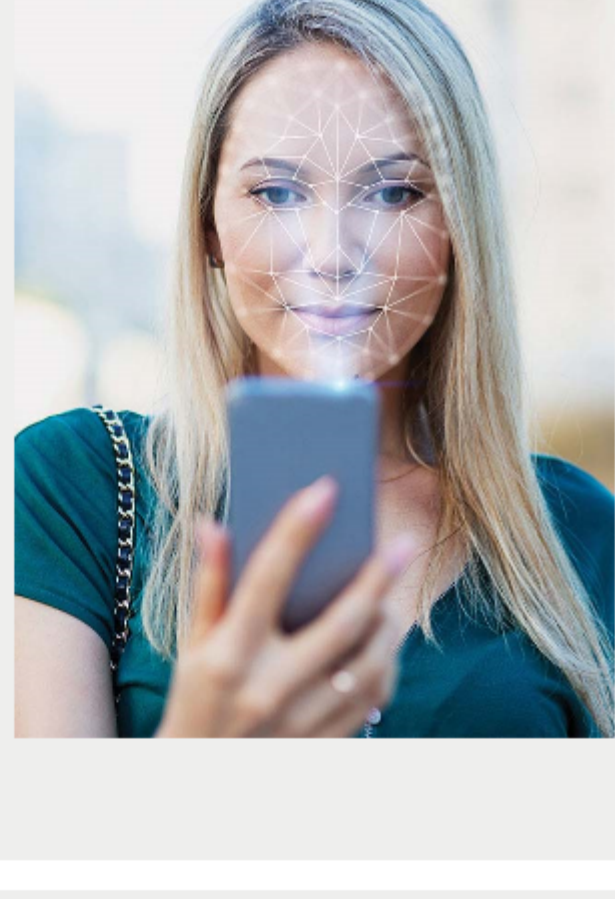
Monthly newsletter from the editors of Photonics Spectra, with features, popular topics, new products, and what's coming in the next issue. Manage your Photonics Media membership at Photonics.com/subscribe.

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First Models Now In Series Production

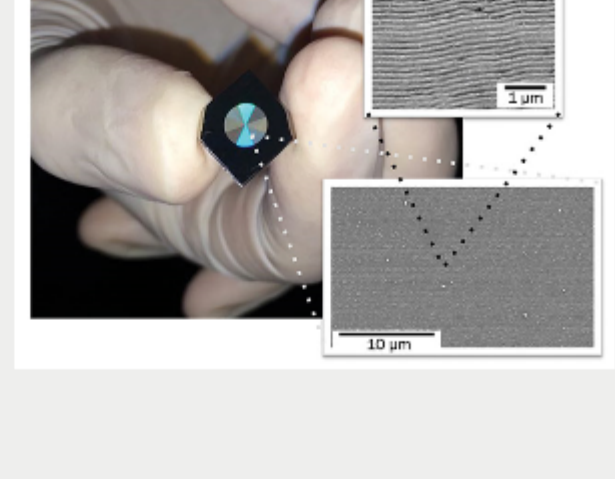
**BYE-BYE, CCD SENSORS.
HELLO BASLER CMOS CAMERAS.**

Measuring NIR Sources for Safe and Accurate 3D Sensing
 NIR wavelengths range from 700 to 1500 nm, and NIR light sources can be used for multiple applications. For example, NIR in the 780-nm range is used and considered safe for eye tracking, the 850-nm range is used for night vision in security cameras, and emissions from 930 to 950 nm are common for the NIR LEDs in a standard television remote control. Wavelengths from 700 to 950 nm are used in a variety of NIR spectroscopy applications for medical diagnosis.



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All-Diamond Metamaterial Optics
 The strongly bound and tightly packed crystal lattice that comprises diamond makes it an ideal candidate for extreme optical and photonic devices. Thanks to the unique combination of its outstanding thermal, mechanical, and optical properties, synthetic diamond is becoming the material of choice for high-power optical and laser systems beyond the kilowatt frontier.



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Cannabis Industry Boom is a Boon for Spectroscopic Detection
 Despite remaining illegal at a federal level and in about one-third of states, the legal cannabis industry in the U.S. has become a nearly \$11 billion business — a figure that is predicted to double by 2022. The boom of the industry, which exceeded \$244 million in tax, license, and fee revenue for the state of Colorado in 2018, is also a boon for scientists, specifically analytical chemists, as testing facilities and instrument companies sprout up like, well, weeds.



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Featured Products

Meridian® FLEX Camera Testing Platform (Patent Pending)

Optikos Corporation
 The Meridian FLEX platform provides camera manufacturers and integrators with a powerful tool that's flexible enough for the R&D lab and fast enough for production camera testing. At its heart is a high-speed high-precision robot that can place a target at any specified field point in a variety of different instrument configurations.

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Basler MED Ace Series

Basler AG
 The first models of the Basler MED ace camera series, produced in accordance with DIN EN ISO 13485:2016, have now entered series production (2 MP and 5 MP resolution). The camera series includes Basler's first cameras specifically designed for Medical & Life Sciences.

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SYNOPTICS Now Offers IBS Coatings

Northrop Grumman Synoptics
 Quasi-Rugate thin film designs are optimized for high-power laser applications for ultra-fast through CW applications across the wavelength range of 355 nm to 2200 nm. Each design has a unique refractive index profile specifically tuned to give optimal performance for our customer's applications.

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Low Noise QCL Driver for Spectroscopy

Wavelength Electronics Inc.
 Low current noise density of 1 nA / √Hz over 100 kHz in an AC powered instrument with intuitive touchscreen. Lower noise translates to narrower Quantum Cascade Laser linewidth, stable center wavelength, and repeatable scans. Higher sensitivity and lower material concentration threshold detection.

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High and Low Refractive Index Adhesives

Norland Products Inc.
 Match your optical substrate's refractive index to enhance its optical properties with one of Norland Products' High or Low refractive index adhesives. When exposed to UV, visible light or heat these one component solventless adhesives will cure to a clear film in seconds.

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IR Filters for Thermal Imaging and Gas Detection

Spectrogon US
 Spectrogon manufactures infrared filters and windows with high transmission, high rejection outside the passband, and introducing low cosmetic defects — while maintaining excellent coating uniformity — for thermal imaging applications such as cryogenically cooled IR detectors and for uncooled microbolometers.

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Lince 11M Sensor for High-speed Applications

Teledyne e2v (UK) Ltd.
 Teledyne e2v announces the expansion of its Lince family of image sensors with a new 11Megapixel detector. Lince11M is a new CMOS image sensor designed for applications that require 4K resolution at very high shutter speed.

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Protection for Femtosecond Applications

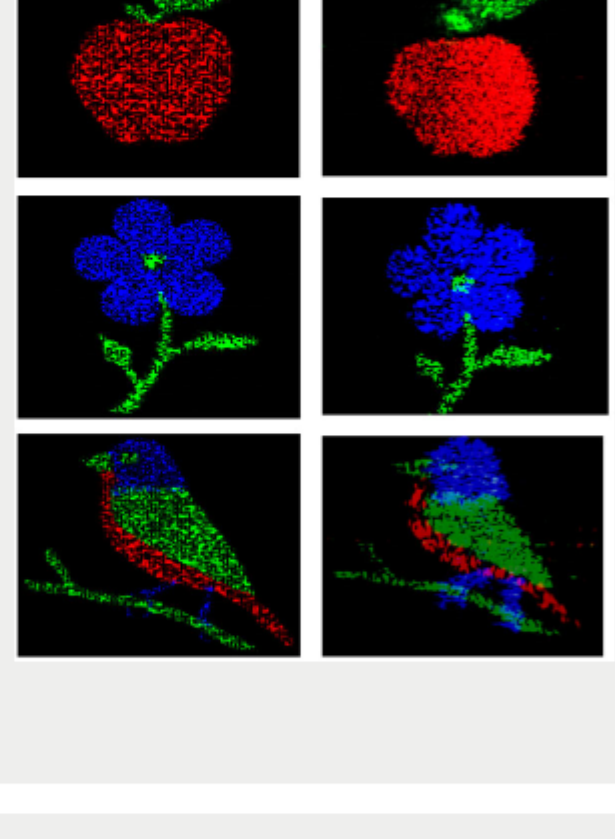
Kentek Corporation
 Kentek's C120C coated filter is an excellent choice for femtosecond applications including Ti:Sapphire for industrial, medical and scientific environments. The C120C filter provides scratchproof laser safety, 40% visibility and protection levels up to OD 9 at select wavelengths.

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In Case You Missed It

Lens-Free, Multicolor Holography Technique Could Enable Compact 3D Displays
 A holography technique based on computer-generated holograms, developed by a team at Duke University, produces complex, multicolor holographic images without any bulky optical components.



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Machine Learning Identifies Nearly All US Solar Panels from 1 Billion Images
 Stanford University scientists developed a machine learning program that analyzed more than 1 billion high-resolution satellite images and identified nearly every photovoltaic solar power installation in the contiguous 48 U.S. states.

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Colloidal Quantum Dot, IR LEDs Display Highest Efficiency
 A composite material that is a strong light emitter as well as an efficient charge conductor — colloidal quantum dot LEDs — has been developed by the Institute of Photonic Sciences.

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Webinars

Selecting an IR Camera for Your R&D Application — 7 Tips from a Top Expert

Tue, Mar 19, 2019 1:00 PM – 2:00 PM EDT
 Thermography has become an indispensable tool for all types of R&D projects. Many IR camera options are available with different features and at varying costs, making it difficult to select the camera best-suited to your application. In this one-half-hour webinar, Chris Bainter, global director of strategic business development at FLIR Systems, will provide the guidance you need to make it easier for you to choose a thermal-imaging camera that meets all your requirements. He will focus on the seven most important things to consider when selecting an IR camera and explain them in plain language to help you select the right tool for your unique application needs. There will be ample time at the end of the webinar for Q&A. This webinar is sponsored by Teledyne DALSA and by InfraTec GmbH.



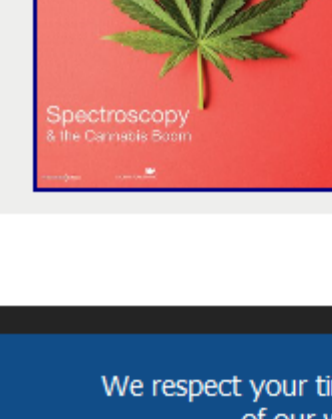
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Features
 Laser-Based Standoff Sensors, 3D Imaging in Industry, High-Speed CMOS Cameras, Sensors, UV/LWIR Optics

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