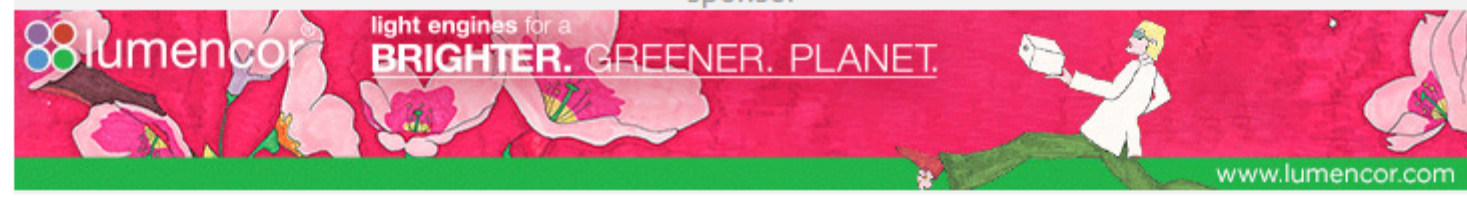


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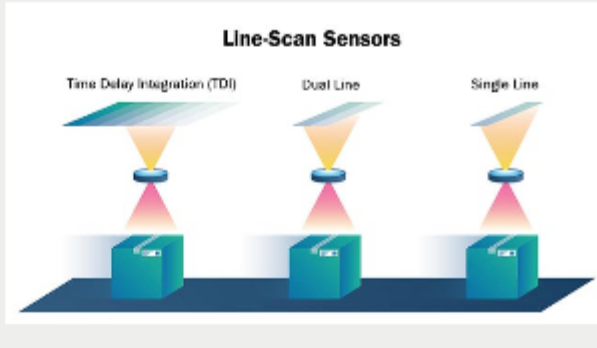


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CMOS Imaging: From Industry to Consumer and Back Again

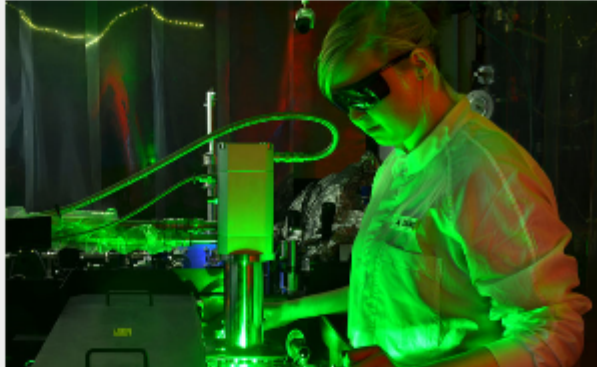
Ongoing advancements in CMOS sensor design are creating new possibilities for all sides of the imaging industry. The entire sensor industry is surging, according to reports by market research firms Energias Market Research, and Research and Markets. The global image sensor market, in particular, is expected to grow significantly, from \$14.1 billion in 2017 to \$25.6 billion in 2024, at a compound annual growth rate of 10.3 percent. The majority of this growth will occur in the consumer space, which typically commands nearly 80 percent of the market.



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Researchers Demonstrate Ultrafast Conversion of Light into Electricity

A team from Kiel University filmed the conversion of light energy into a solid — an exchange that takes place in a matter of femtoseconds — using an ultrafast camera system developed by the researchers. The team was able to observe the energy exchange of the electrons with their environment in real time and distinguish individual phases.



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Growing Developments with NIR Spectroscopy

Advancements to NIR LED emitters are helping to grow the product portfolio for mobile spectroscopy and opening new application fields for well-being and health monitoring for consumers. Near-infrared spectroscopy uses the characteristic light absorption behavior of certain molecular compounds. Directing a defined spectrum at a sample makes it possible to determine the presence and quantity of certain ingredients from the wavelength distribution of the reflected light. This method is used in the food and agriculture industries, among other sectors.



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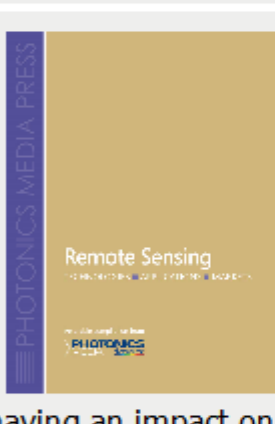


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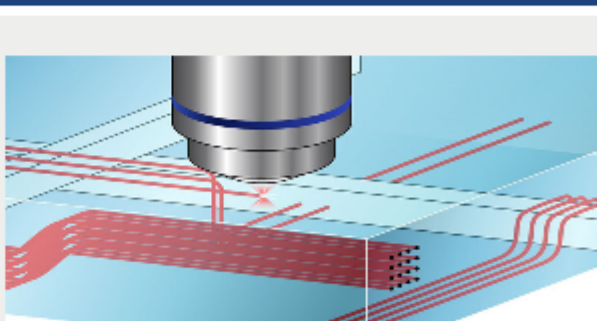
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More News From Europe

Flexible Waveguides Exhibit Low Light Loss for Biosensors, Wearables

Tiny, flexible waveguides, made in a clear silicone commonly used for biomedical applications, were created by a research team at École Fédérale de Lausanne (EPFL). To create the waveguides, the team used multiphoton laser direct writing, a microfabrication method in which a light-sensitive chemical is polymerized with a focused laser to create finely detailed 3D structures.



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Jenoptik Fills Traffic Safety Orders

Jenoptik is set to deliver hundreds of orders for speed enforcement to Algeria's Ministry of Interior and Local Government, as well as another major client in the Middle East.

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Impurities in Semiconductor Enable Qubits That Emit Photons in IR

An international research team has constructed a qubit that transmits information on its status at a wavelength of 1100 nm. The researchers said it is likely that the approach they used could be tuned to wavelengths of 1300 to 1500 nm, which is close to those used by telecom providers.

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Photonic Integrated Circuits, Microdisplays for AR/VR, Lasers for Manufacturing, EPIC Insights

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