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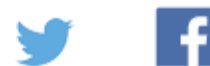
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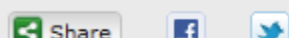
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OPO-Based Photoacoustic Spectroscopy Speeds UP Gas Analysis



High mid-IR output power from an optical parametric oscillator teams up with novel cantilever-enhanced photoacoustic measurement technology to offer extreme sensitivity and selectivity in industrial gas analysis and monitoring.

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Optical Delay Lines: Key to Time-Resolved Measurements

To obtain an accurate means of creating reliable delays in any time-resolved spectroscopy or dynamic experiment, several factors about the delay line stage must be considered to reduce or eliminate errors associated with linear stages.

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Mounting Precision Enhances Laser Performance

Optical mounts frequently play a critical role in overall laser system performance, but their impact may become obvious only when optical misalignment from vibration, thermal drift or long-term mechanical creep causes system operation to degrade. This article reviews basic styles of optical mount design and construction, and compares various mount types in terms of stability, functionality and cost.

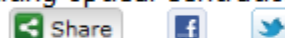
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Active Alignment Techniques Improve Lens Centering

An optomechanical engineer faces many challenges when assigning tolerances for precision lens assemblies. Beginning with a functional requirement for optical centration, the engineer must determine mechanical tolerances for the various lens and housing components. To avoid overspecifying such tolerances, it is helpful to understand alignment and assembly processes that can achieve different levels of accuracy in the resulting optical centration.

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Automated Fiber Aligners Improve Packaging



Computer-controlled fiber alignment engines help process engineers achieve higher throughput in photonics packaging applications. Fiber alignment used to be a tedious manual task, back before the telecom boom. But automated fiber aligners have changed all that.

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Products from this Issue



Vacuum Cooling CCD
Raptor Photonics Ltd. Raptor Photonics, a global leader in the design and manufacture of high performance digital cameras has launched the Eagle V, a "best in class" deep cooled vacuum based CCD using Raptor's revolutionary vacuum technology PentaVac™.

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New Outstanding Product Line
C-Flex Bearing Co., Inc. FLEX PIVOT: Frictionless Bearings or Flex Pivot Bearing utilizes internal flat crossed springs, capsuled in a cylindrical housing to provide precise rotation with low hysteresis and no frictional losses.

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Low-Profile Photocouplers
Toshiba Imaging Systems Toshiba America Electronic Components Inc. offers a new line of low-profile, rail-to-rail output gate-drive photocouplers.

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Fiber Preparation Machines
AFL New automatic preparation machines from AFL allow technicians to strip, clean and cleave fibers in 18 to 21 seconds.

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