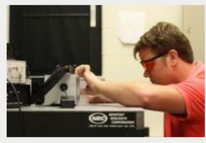
Wednesday, February 07, 2018

SPECTROSCOPY Tech Pulse

February 2018
Spectroscopy Tech Pulse is a special edition newsletter from Photonics Media covering key developments in spectroscopy technology. Manage your Photonics Media membership at Photonics.com/subscribe.

Spectroscopy Instrument to Aid in the Search for Extraterrestrial Life



A compact spectroscopy instrument has been developed for use in planetary exploration. The system, called the standoff ultra-compact micro Raman (SUCR) instrument, is capable of inspection and identification of minerals, organics and biogenic materials within several centimeters (2 to 20 cm) at a 10-µm resolution.

Read Article

Raman Spectroscopy Peers Through Packaging

See-through Raman spectroscopy (STRaman), developed in 2016, expands the capability of Raman spectroscopy to measure samples beneath diffusely scattering packaging material. The system is designed to have a much larger sampling area than the confocal approach.

Read Article

Products

Diffraction Grating Solutions

Optometrics Corporation
Diffraction efficiency and dynamic range are critical parameters in many spectrometric instrument designs. Understanding why a particular reflective or transmission diffraction grating may have small yet necessary performance differentiation for instrument optimization success can be critical.

Request Info | Visit Website

771 Series Laser Spectrum Analyzer

Bristol Instruments Inc.
The 771 Laser Spectrum Analyzer combines proven Michelson interferometer technology with fast Fourier transform analysis to measure both a laser's wavelength and spectrum. Absolute wavelength is determined to an accuracy as high as ± 0.2 parts per million. And, with a spectral resolution as high as 2 GHz and an optical rejection ratio (ORR) of > 40 dB, the system provides the most detailed information about a laser's spectral properties.

Request Info | Visit Website

Corning Hyperspectral Imaging

Corning Incorporated, Advanced Optics
Corning provides hyperspectral sensors and full hyperspectral systems for all applications including precision agriculture, industrial, environmental monitoring, mining, and mineralogy. Our microHSI(TM) family of hyperspectral sensors and systems combine the lowest size, weight, and power in the industry.

Request Info | Visit Website

Rhea: High-End Spectrometers

Admesy BV
Admesy's Rhea is a high-end configurable spectrometer platform that has been developed with industrial and R&D analysis applications in mind. This spectrometer series can be fine-tuned for different applications in the spectral range between 200 and 1100nm.

Request Info | Visit Website

Optical Biomedical Imaging

Photonics Media
At last, a reference work has been compiled that offers in one place a broad survey of technologies, applications and markets for optical biomedical imaging, as only Photonics Media could produce it. This collection is a practical resource for those engaged in the research and development of relevant technologies.

Request Info | Visit Website

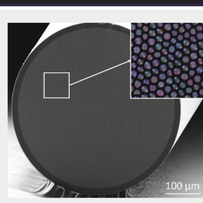
BaySpec's Palm Spectrometer - Breeze™

BaySpec Inc.
BaySpecTM introduces the world's smartest Palm spectrometer for 400-1700nm with a simple one touch of button operation. Featuring proprietary miniaturized optics, BreezeTM is highly efficient for maximum sensitivity with ultrafast acquisition.

Request Info | Visit Website

More News

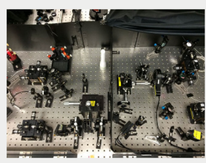
Endospectroscopic Imaging Takes Optical Biopsies to the Next Level



Spectroscopy has the potential to provide pathologists with fast in vivo tissue characterization to determine tumor type and grade and to delineate tumor margins. However, extending the applicability of microspectroscopy to in vivo imaging requires suitable optical fiber probes for an endoscopic inspection of difficult-to-access body regions.

Read Article

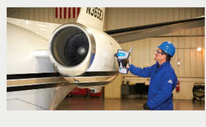
Quantum Optics Lead to Spectroscopy Method for Measuring on FS Time Scale



Scientists have demonstrated a time-resolved spectroscopy technique that enables the study of very fast processes in samples on the femtosecond (fs) time scale without the need for an fs laser or a complex detection system. The method works by analyzing quantized light transmitted through a sample.

Read Article

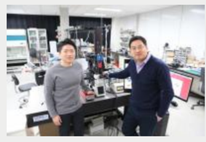
Packing More Performance Into Smaller Spectrometers



From food safety and manufacturing efficiency, to environmental testing and medical diagnosis, optical spectroscopy is already an indispensable tool across several industries. Today, thanks to miniaturization of instruments and sophisticated advances in technology, spectroscopy is increasingly used to address the demands of a modern world.

Read Article

Biomicroscopic System Could Lead to More Effective Cancer Treatment



A multimodal biomicroscope based on high-frequency ultrasound and optical spectroscopy could overcome the challenges of existing imaging systems for tumor analysis and provide physicians with the means to avoid unwanted outcomes such as cancer recurrence or metastasis to other organs.

Read Article