

# SPECTROSCOPY


## Tech Pulse


PHOTONICS MEDIA

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Spectroscopy Tech Pulse is a special edition newsletter from Photonics Media covering key developments in spectroscopy technology.

sponsor





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### Spectroscopy Prospects Brewing

To say craft breweries are bubbling up all over the United States no longer does the fact justice. The number of craft breweries nationwide has nearly tripled over the past decade, totaling 4,225 in 2015, according to the Brewers Association. Besides offering countless varieties, craft breweries like to promote themselves as a better-tasting, better-quality beer than the alternative macrobrews. While taste is a subjective and hotly debated topic, beer quality is something that can easily be measured with spectrometers.

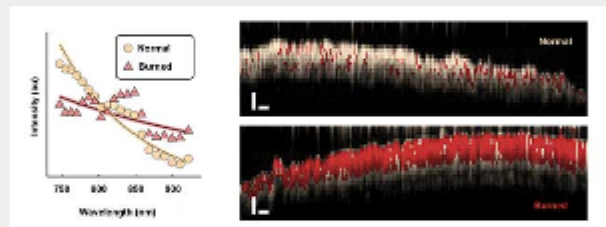


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### Beyond OCT: New Interferometric Imaging Techniques in Biomedicine

Optical coherence tomography (OCT) began its commercial history in 1996 as a revolutionary technology for imaging retinas to help diagnose eye diseases, including glaucoma, macular degeneration and diabetic retinopathy. Now a mainstay in ophthalmology offices, OCT technology has expanded its reach to numerous other biomedical applications, including cardiology, IVF and oncology.



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### Ultrathin Metalens Captures Chiral, Spectral Images Simultaneously

An ultracompact planar lens has been engineered to simultaneously form two images of the same object, with opposite helicity and within a single field-of-view. The chiral and spectral properties of the object can be simultaneously probed across the visible spectrum with only the ultrathin lens and a camera. The ultrathin surface of the lens can form an image and at the same time resolve polarization and spectral information of the object, thus integrating the functions of polarization and dispersive optical components.



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### Elastic Peak Electron Spectroscopy Theorized for Surface Analysis

A theoretical model describing the sampling depth of elastic peak electron spectroscopy for calculating the parameters of electron scattering in the surface layers of samples may enable more reliable interpretation of measurement data and reduce the time needed for materials analysis. Traditionally, multiple calculations have been required to determine if the electrons reflected from the surface of the material absolutely pertained to the sample being tested, and not, for example, to the base on which the sample was located.



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## Products



### High-Speed Laser Wavelength Meter

**Bristol Instruments Inc.**

The 871 Laser Wavelength Meter measures the absolute wavelength of pulsed and CW lasers with the reliable accuracy required for the most demanding applications.

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### Rhea Ultra-Sensitive Spectrometer

**Admesy BV**

The Rhea series spectrometer offers a unique combination of ease of use and accurate measurement capabilities packed in a robust jacket. The Rhea utilizes a high-end cooled CCD detector for low noise and high dynamic range.

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### Novel Hyperspectral Imager for Airborne Applications

**BaySpec Inc.**

BaySpec OCI series of hyperspectral imagers represent a new class of imaging sensors specifically designed to address image quality and ease-of-use issues in legacy hyperspectral imaging systems.

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### Laurin Publishing Announces Poster Series

**Photonics Media**

Laurin Publishing Co., whose titles include Photonics Spectra and BioPhotonics magazines and the Photonics Buyers' Guide, announces the availability of two posters featuring art that takes a lighthearted look at the early days of the photonics industry.

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