Avantes Raman Bundles

Raman Spectroscopy allows obtaining individual spectral 'fingerprints'of materials. Commonly used in chemistry, pharmaceutical and medical fields,to provide information by which molecules can be identified.

To offer our customers optimal performance for a reasonable price, Avantes joint forces with 2 partners to offer you a Raman Bundle consisting of a great spectrometer (3 different models), a unique Laser-Probe combination (785nm) supplying enhanced signals and an outstanding Software package to analyze the Raman spectra.

These 3 Bundles have in common:

For Excitation:

AvaLaser785 (incl.: 785 nm laser safety goggles). It has an ultra-high throughput integrated Raman probe. This novel device includes an integrated wavelength stabilized laser source with Raman filter packs, beam shaping optics and high efficiency Raman spectra collection optics.

Type of Measurements:

Raman techniques are used for many different materials. The Avantes bundles are really good for the use of powders and liquids. When strong signals are available (aromatic compounds, alcohol based liquids) in general Ava-Raman-A is useful to perform the measurement.
When weak Raman signals occure (Integration time longer than 5 seconds) the thermo-electric-cooled (TEC) spectrometer is recommended. This is added in the Ava-Raman-B.
If very weak signals possibly together with fluorescence background the Ava-Raman-D using our new AvaSpec-HERO is recommended (Higher quantum efficiency in NIR and better signal to noise performance).

For Analysis:

Panorama-Light: Panorama Light is a modular, high-end software platform for spectroscopic data evaluation. The application meets all requirements for a comprehensive spectroscopy working environment, offering:
•Measurement with an instrument
•2D & 3D data visualization
•Searching in libraries
•Archiving in spectral libraries, including additional information

For Detection:

We offer state of the art spectrometers based on the Avantes Star- and SensLine spectrometers, tailored for optimal performance in the Raman range of interest.

AvaRaman Bundle

Ordering Information

AvaRaman-A *For basic applications.* *Based on an uncooled spectrometer this is the entry bundle for reasonable strong signals*	• Range : 150 cm^{-1} - 3600 cm^{-1} • Resolution: 6 cm^{-1} • AvaSpec-ULS2048L-USB2 set for (788-1100nm),slit-25, DCL-UV/VIS200, FC-PC connector) • Also including: AvaLaser785 (incl. probe), AvaRaman software: Panorama Light Optional: Replaceable slit (add –RS)
AvaRaman-B *For demanding applications.* *Based on the cooled version of the spectrometer offered in the bundle Ava-Raman-A.* *Cooling enables you to work with longer integration times, yet keeping the thermal noise limited.*	• Range : 150 cm^{-1} - 3600 cm^{-1} • Resolution: 6 cm^{-1} • AvaSpec-ULS2048LTEC-USB2 set for (788-1100nm),slit-25, DCL-UV/VIS200, FC-PC connector) • Also including: AvaLaser785 (incl. probe) AvaRaman software: Panorama Light Optional: Replaceable slit (add –RS)
AvaRaman-D *For the most challeging applications.* *This bundle uses the AvaSpec-Hero for detection. The High end cooled back-thinned detector, low-noise electronics and optical bench with high Numerical Aperture,* *results in excellent Signal to Noise and Dynamic Range*	• Replaces AvaRaman-C • Range : 100 cm-1 - 3000 cm-1 • Resolution: 10 cm-1 • Spectrometer based on an AvaSpec-HS1024x58TEC-EVO set for (788-1020nm), slit-25, DCL-UV/VIS200, FC-PC connector, replaceable. • Also including: AvaLaser785 (incl. probe) AvaRaman software: Panorama Light

Options

Ava-Raman-SH-785 Bundle	Light tight cuvette holder for Use with Raman probe of AvaLaser785 used with the Ava-Raman A/B/D bundles. Incl. adjustable gold coated mirror for signal collection
Ava-Raman-XYZ-785 Bundle	Manually Adjustable X-Y-Z Stage for use with Raman probe of AvaLaser785 used with the Ava-Raman A/B/D bundles

AVANTES enlightening spectroscopy
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