

RS3100 Scientific Raman Spectrometer

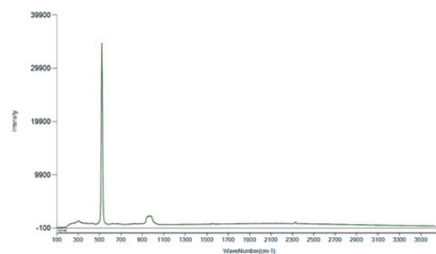


JINSP®RS3100 scientific Raman spectrometer is a high-performance analytical instrument for rapid and non-destructive sample analysis. It features outstanding performance including high sensitivity, high signal-to-noise ratio, low fluorescence, and high stability.

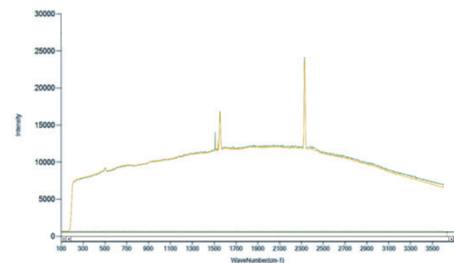
RS3100 utilizes a 532 nm wavelength excitation laser, built-in transmission grating spectrometer, and a -80°C deep-cooled scientific camera. It employs a multi-core fiber, providing extremely high sensitivity, fully meeting the analysis needs in fields such as chemical analysis and materials research.

Benefit Highlights

Low-fluorescence probe design: The Raman probe employs a parabolic reflector instead of glass lens to eliminate signal interference from glass materials.



Raman signal of a silicon chip exceeds 20,000 counts per second with 30 mW excitation



1-min Raman spectrum of air shows no fluorescence interference

High signal-to-noise ratio: The -80°C deep-cooled scientific camera (PI PIXIS 100B) provides high sensitivity and low noise.



PI PIXIS 100B



3-dimensional spring anti-vibration platform

High stability: A built-in small anti-vibration platform effectively protects the optical components.

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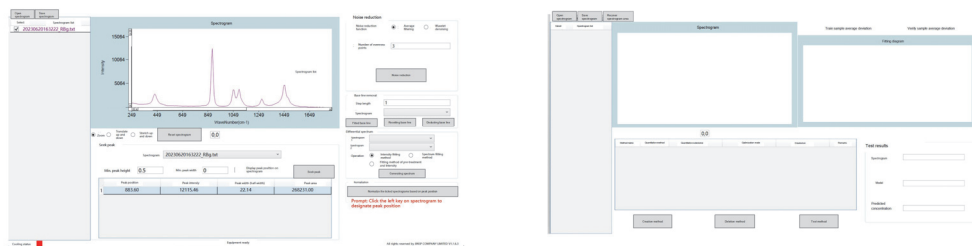
JINSP Company Limited (JINSP) is a company specialized in spectral analytical technology. With the experts in such fields as optics, machinery, electricity and software, we are engaged in the development and production of scientific and industrial spectrometers. With our existing technology, JINSP has won key awards in several international invention exhibitions and more than 200 patents, and passed the European Union CE certification and the EU Civil Aviation ECAC certification. Our thousands of products have been exported to dozens of countries worldwide.



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Comprehensive software capabilities: Multiple functionalities including data acquisition, data smoothing, noise reduction, difference spectra, comparison, and the establishment of quantitative analysis methods.



Multifunctional detection accessories: Solid sample holders, liquid sample holders, sealed detection chambers, etc., suitable for the detection of various sample forms including solids, powders, liquids, and more.

Field of application

1. Material analysis
2. Crystal type research
3. Gas detection
4. Fundamental scientific research

Specifications

Excitation wavelength	532 nm
Laser power	0-100 mW, continuously adjustable
Spectral coverage	100 ~ 3700 cm^{-1} or 100 ~ 4200 cm^{-1} (depending on the camera)
Spectral resolution	< 8 cm^{-1} (with 50 μm slit), or < 6 cm^{-1} (with 25 μm slit)
Weight	< 20 kg
Wavelength stability	< 0.01 nm
Detector	Scientific-grade deep-cooled camera (PI PIXIS 100B)
Spectrometer	Transmission high-throughput spectrometer
Standard accessories	Solid sample holder, liquid sample holder, light-shielded sample chamber
Optional accessories	Microscope, mechanically adjustable sample stage
Software functions	Spectrum acquisition, spectrum data processing, spectrum comparison, device calibration
Operating environment	Operating temperature: 0 ~ 40 °C Storage temperature: -20 ~ 55 °C
Data output format	SPC, txt, prn, and other formats are available
Power supply	100-240 VAC, 50-60 HZ

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