

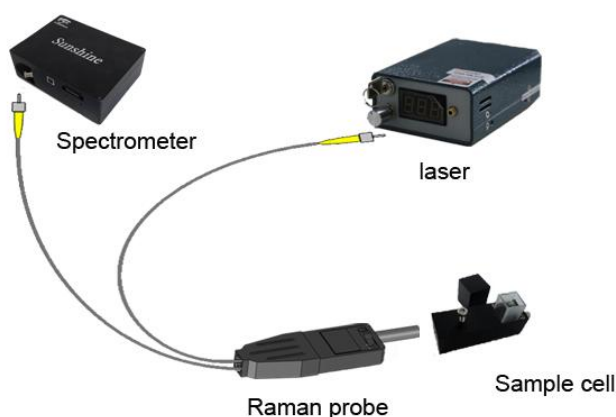
Raman Spectrometer

The *RamanSys* series of Raman spectrometers, equipped with frequency-stabilized lasers, high-sensitivity fiber optic spectrometers, and fully solid-state optical design Raman probes, offer advantages such as portability and high sensitivity, making them suitable for applications in various fields including biological science and medical diagnosis, jewelry appraisal, and forensic analysis.

Raman Analysis is a Raman spectral analysis software developed by Precisometer

This software conducts qualitative analysis by collecting the Raman spectra of samples and comparing them with a database. The database is open to the public and has a self-built library function. It features fast analysis speed and a simple operation process.

The *RamanSys* series includes combination Raman spectrometers, portable Raman spectrometers, and benchtop Raman spectrometers.



Feature:

- Detect weak signals
- Non-destructive sample testing
- Can be tested for solids, liquids, and powders
- No sample preparation required
- Fast analysis, short detection time
- Low maintenance cost, no consumables needed

Advantages:

- Up to 80% quantum efficiency
- Adjustable excitation light source power with stable wavelength
- Plug-and-play, easy to operate
- Simple measurement, fast speed
- Simple software operation
- Includes library matching and search functions as well as the ability to build your own library

Application fields:

- Raman spectroscopy detection
- Chemical/biological research
- Environmental science
- Jewelry identification
- Food safety testing
- Legal identification
- Pharmaceutical and medical diagnosis
- Geological exploration
- Supports various applications

Specifications

Excitation wavelength (nm)	360±0.5	405±0.5	488±0.5	532±0.5	633±0.5	785±0.3	830±5
Laser spectral linewidth (nm, optional)	<0.2 <0.00001	~2nm <0.06 <0.03	~2nm <0.06 <0.03	<0.1 <0.003 <1MHz	~2 <0.03 <100MHz <20kHz	~2 <0.06 <0.03 <100MHz	~2 <0.06 <0.03 <100MHz
Laser power (mW, optional)	1-300 1-3000	1-500 1-100 1-50	1-1500 1-50 1-70	1-1000	1-80 1-50 1-30 1-1000	1-600 1-450 1-50 1-80	1-1000 1-500 1-30 1-80
Raman shift (cm ⁻¹)	450-4500	300-3000	150-3000/ 450-3000	100-4500 /150-4500	125-3000	100-3648 /150-3648	100-2048 /200-2048
Amplitude noise (rms)	<1% or non-low noise version						
Operating mode	CW						
Power stability (rms, 4hrs)	< 1 %						
Warm-up time (minutes)	<10	< 5					
Working temperature (°C)	10-35						
Pixel number	2048 pixels						
Expected life time (hours)	10000						
Pixel size	14um×14um						
Spectrometer signal-to-noise ratio	1000:1						
Integration time	17ms~10s (Sunshine spectrometer) 17ms-60s (Refrigerating Spectrometer)						
Refrigeration temperature	Lower than room temperature 20°C (only for Refrigerating Spectrometer)						
Fiber connector type	SMA905						
Working distance (mm)	7.5						
Material	Probe body material 2A12, with blackening treatment; The top of the probe is made of stainless steel.						
Software	Spectral Analysis software / Raman Analysis 2.0 software						
Operating system	Windows XP/Win7 、 8 、 9 、 10 、 11 (32-bit or 64-bit)						
Warranty	12 months						

Product Illustration



Combined Raman Spectrometer



Portable Raman Spectrometer



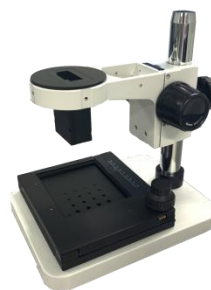
Desktop Raman Spectrometer

Website: www.precisometer.com E-mail: info@precisometer.com

Components Illustration



Raman probe holder



Raman test mount



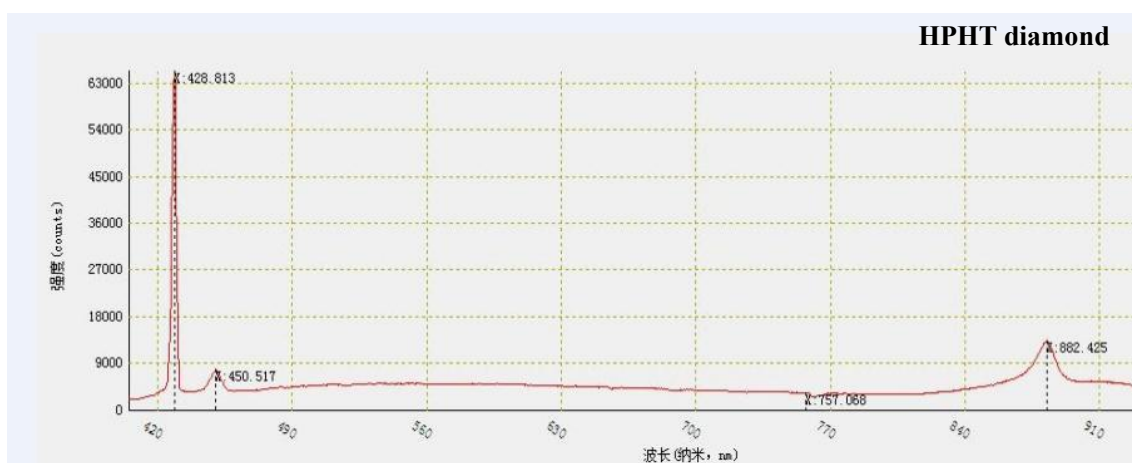
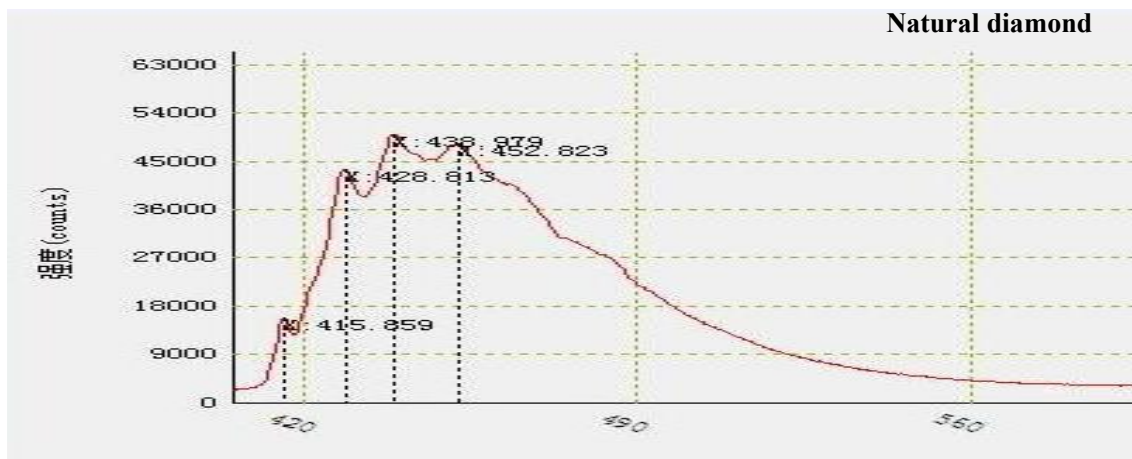
Adjustable sample cell

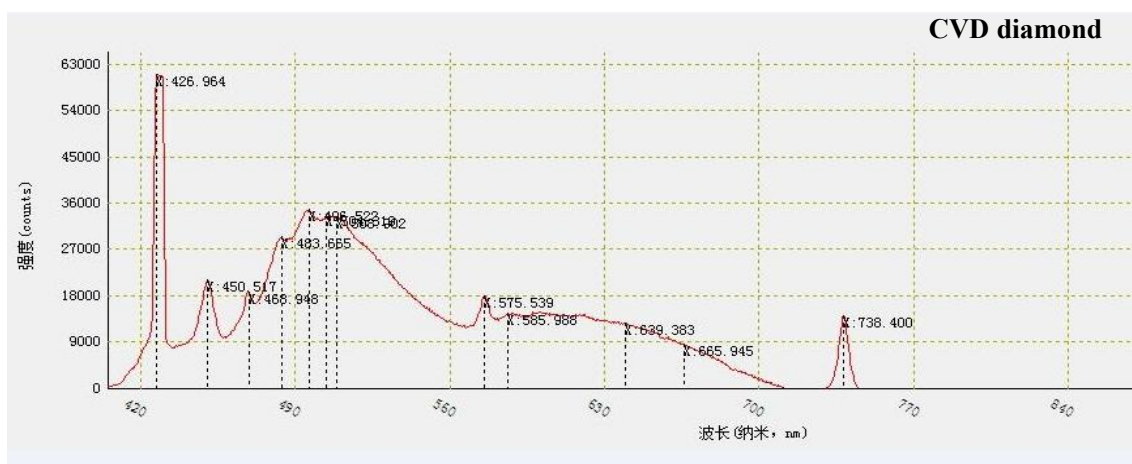


Sample cell

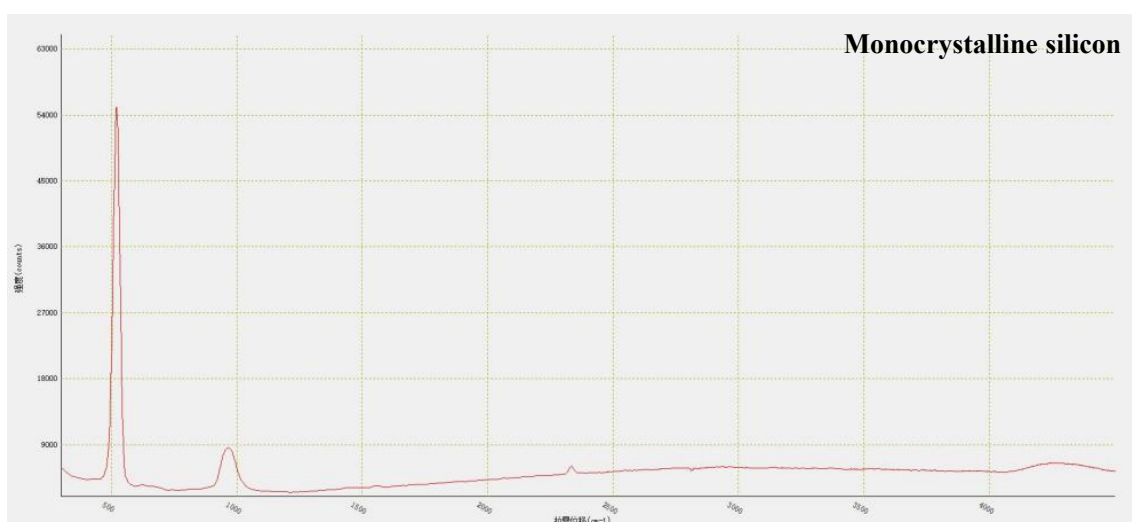
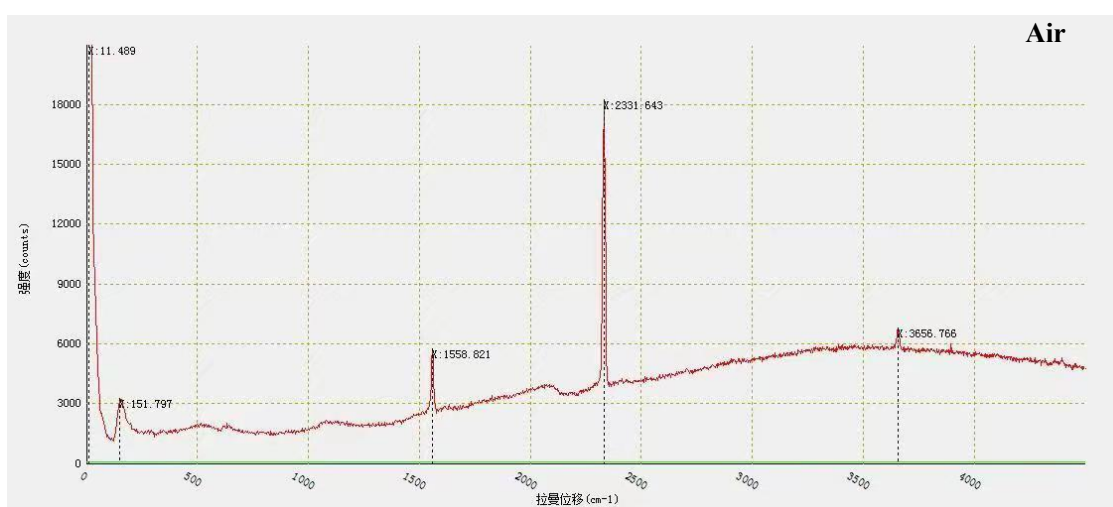
Spectral Measurement Examples

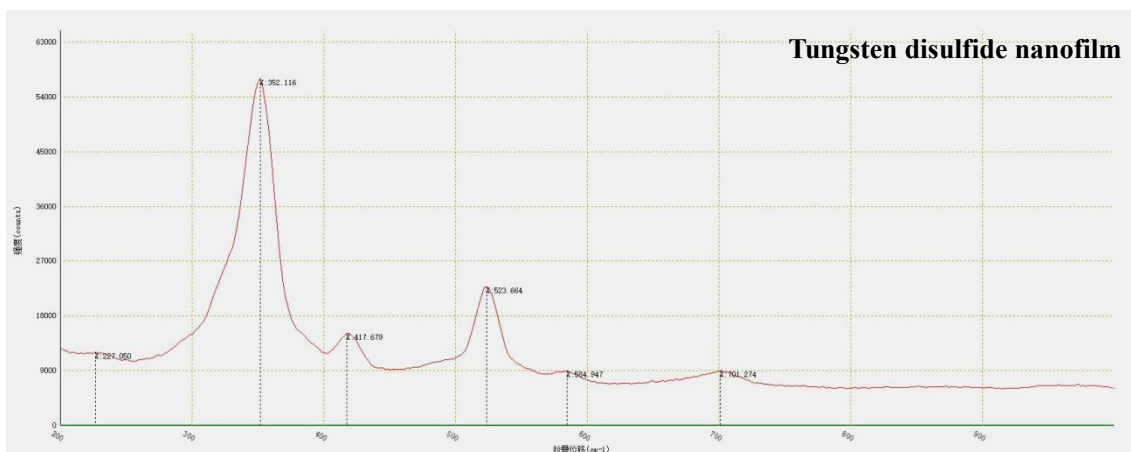
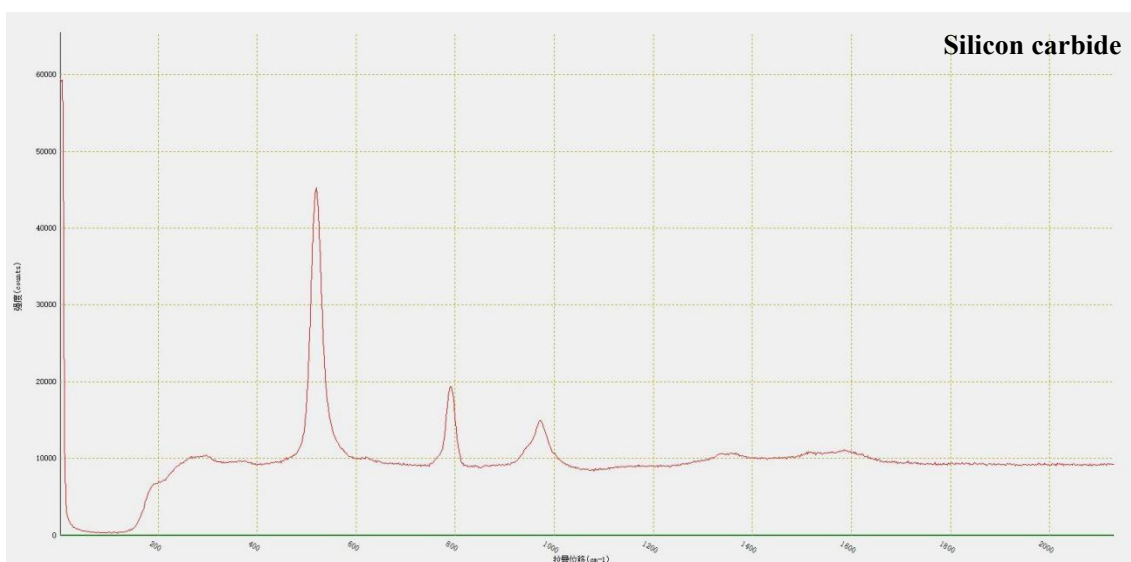
405nm Raman spectrometer test example

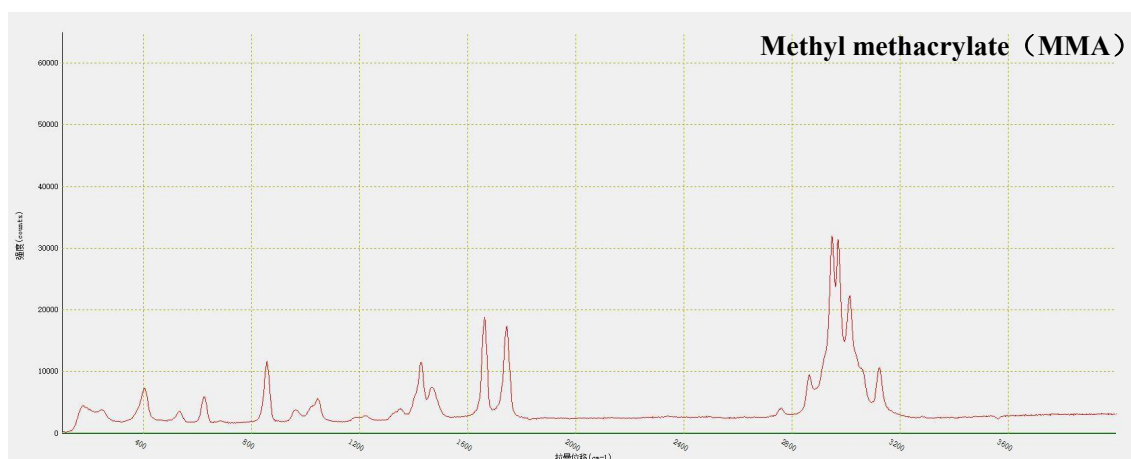




532nm Raman spectrometer test example







785nm Raman spectrometer test example

