NWPEC

EduRaman

Educational Raman spectrometer

Product Introduction

EduRaman is a multifunctional spectroscopic teaching system specifically designed for educational setting s. It integrates various spectroscopic analysis functions such as white light microscopy imaging, Raman spectr oscopy detection, absorption spectroscopy detection, and fluorescence spectroscopy detection, fully support ing the experimental teaching needs of disciplines like physics, chemistry, materials science, and precision ins truments in colleges and universities.

Product Features

→ Breaking the black box tradition and adopting an open optical engine structure,

→ Partitioned design, balancing principle teaching and performance,

→ Includes a schematic diagram of the auxiliary optical path, clearly illustrating the principle of the instrument

→ Equipped with multiple detection modes such as Raman and absorption spectroscopy

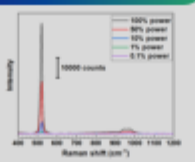
→ Automatically update the learning library in the cloud to enable online teaching and assessment

Module function

SERS Module

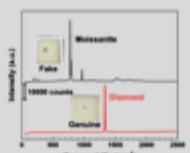
Explore and experiment with enhancement reagents

Principle Module



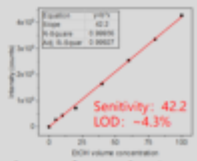
Exploring the factors affecting Raman velocity and spectral peak position

Qualitative Module



Identifying real and fake diamonds, showcasing the charm of spectroscopy, and enhancing experimental fun

Quantitative Module



Explore the relationship between ethanol concentration and Raman intensity

Product Parameters

Model		EduRaman Pro	EduRaman
Appearance			
Function	Raman Spectroscopy	●	●
	Microscopic Imaging	●	◎
	Absorption Spectroscopy	◎	×
	Fluorescence Spectroscopy	◎	×
	Adjustable Grating	●	×
	Calibration Capability	●	●
Spectrometer	Grating(s)	1200 g/mm.150 g/mm	1200 g/mm
	Spectral Resolution	6 cm^{-1}	10 cm^{-1}
	Spectral Accuracy	±3cm^{-1}（1200g/mm）、±1nm（150g/mm）	±1 cm^{-1}
	Spectral Range (Raman)	150~2400 cm^{-1}、2400~4000 cm^{-1}、450~950 nm	150~3900 cm^{-1}
Laser Wavelength		532 nm	
Detector		Cooling temperature: 15°C lower than ambient temperature; Signal to noise ratio:>2000:1;	

Application scenarios