



technooran

precise Micro-Spectroscopy

see more

sensitively

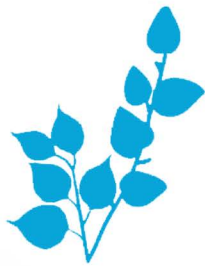


see more
sensitively



technooran
precise Micro-Spectroscopy

Digital imaging
photoluminescence spectroscopy
Raman spectroscopy
Absorption-transmission spectroscopy
Reflectance spectroscopy



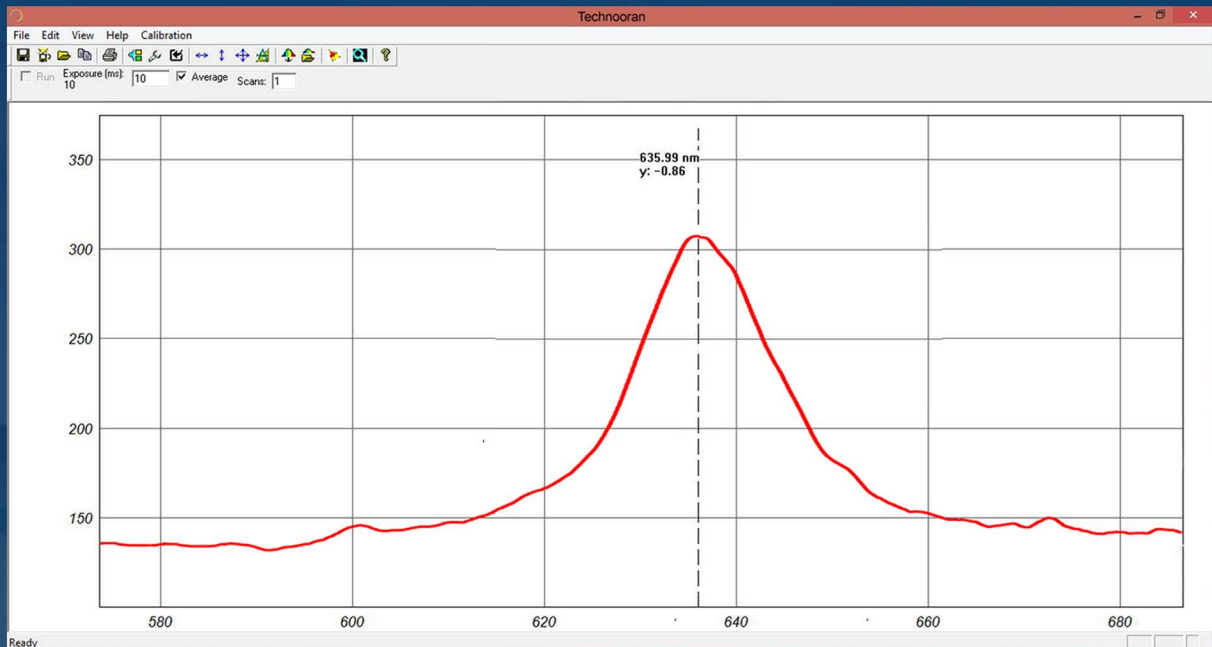
Microspectrophotometer

Micro-spectroscopy and digital imaging
multiple techniques in one device



Microspectrophotometer outputs

Spectrum



◀ PL spectra acquired from WS₂ thin film sample by Technoran microspectrophotometer



technooran

see more
sensitive

Image

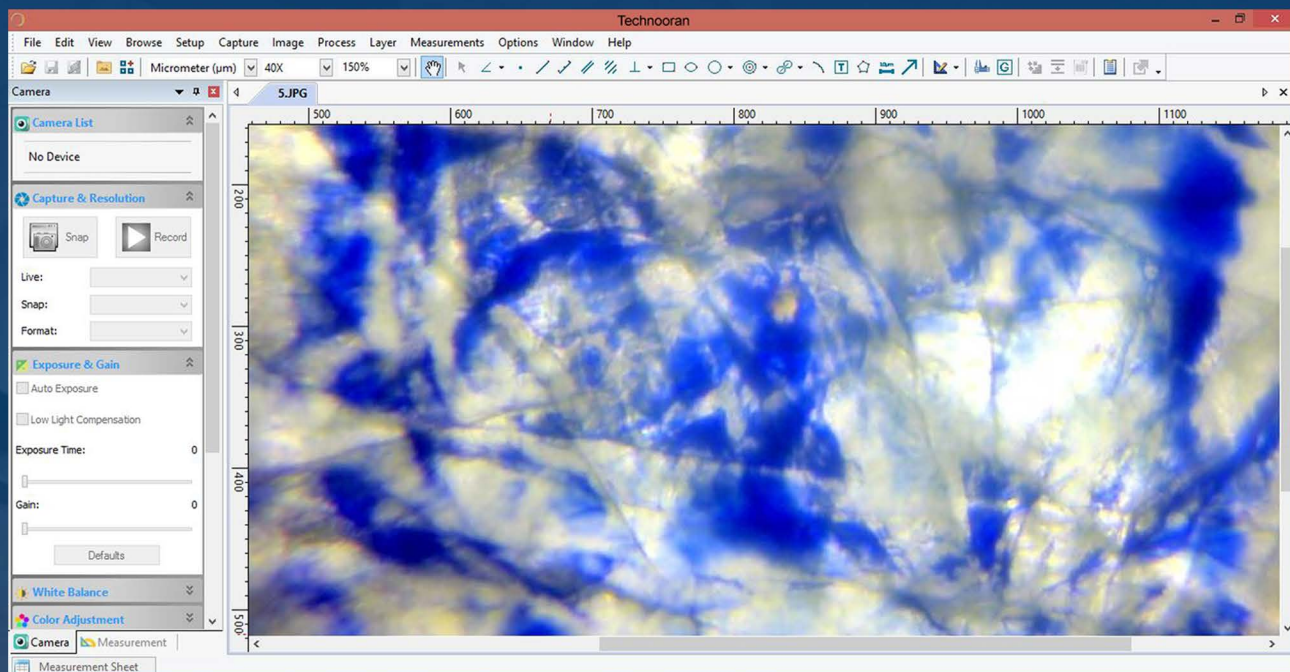


Image acquired with 400x magnification of the blue pen line by Technooran microspectrophotometer

Microspectrophotometer

Microspectrophotometers are easily applied in many different fields and are found in both scientific laboratories and production facilities. It can easily switch between different spectroscopic and microscopic methods and ensure the accuracy and repeatability of the data.

This instrument combines a spectrophotometer with an optical microscope.

- A device for simultaneous imaging and spectroscopy of transparent and opaque samples with micron dimensions concentrations in three phases of solid, liquid and gas
- It can be configured to measure the transmittance, absorbance, reflectance, Raman, fluorescence and photoluminescence microspectra of small sample areas in addition to a digital imaging system

Uses of Microspectrophotometer

Forensic science

Comparison of suspicious evidence, including glass fibers, painting and ink by absorption, reflection and fluorescence micro-spectroscopy.

Nanotechnology

Study and evaluation of optical properties of materials including graphene and carbon nanotubes and surface plasmons of nanoparticles.

Biology

Micro-spectroscopy and Micro-imaging of biological samples such as protein networks, blood cells, tissue samples, DNA and etc.

Geology

Evaluation and quality control of oil resources, coals and jewelry using Raman, fluorescence and photoluminescence spectra.





microspectrophotometer (absorption-transmission-reflection)

Technical specification(Abs-Tra-oo1)

Lamp range	200 - 900 nm
Spectral range	200 - 1100 nm
Spectral resolution	< 2 nm
Microscopic range	79 (X) x 52 (Y) x 22 (Z) mm
Microscopic interval	<10 microns
Spectroscopy time	2.5 ms - 10 s
Detector	CCD linear array 3648 pixel
Transmission spectroscopy mode	✱
Reflective spectroscopy mode	✱
Transmission imaging mode	✱
Reflective imaging mode	✱
Microscope model	Upright
Microscopic object lens	4x, 40x, 60x, 100x
Microscopic ocular lens	10x
Microscope magnification	40x, 400x, 600x, 1000x
Digital camera accuracy	5 megapixel
Software	Connect to PC
Computer operating system	Win 7, 8, 8.1 & 10



technoOran
see more
sensitive



microspectrophotometer (absorption-transmission)



2

Technical specification(Abs-Tra-002)

Lamp range	400 - 700 nm
Spectral range	200 - 1100 nm
Spectral resolution	< 2 nm
Microscopic range	79 (X) x 52 (Y) x 22 (Z) mm
Microscopic interval	<10 microns
Spectroscopy time	2.5 ms - 10 s
Detector	CCD linear array 3648 pixel
Transmission spectroscopy mode	✦
Transmission imaging mode	✦
Microscope model	Upright
Microscopic object lens	4x, 40x, 60x, 100x
Microscopic ocular lens	10x
Microscope magnification	40x, 400x, 600x, 1000x
Digital camera accuracy	5 megapixel
Software	Connect to PC
Computer operating system	Win 7, 8, 8.1 & 10



3

microspectrophotometer(PL)

Technical specification(MicroPL-003)

Laser wavelength	532 nm
Laser model	DPSS Nd:YAG (cw)
Laser power	200 mW
Lamp range	300-900 nm
Spectral range	300-900 nm
Spectral resolution	1 nm
Spectroscopy time	2.5 ms - 10 s
Detector	CCD linear array 3648 pixel
Reflective spectroscopy mode	✦
Reflective imaging mode	✦
Transmission spectroscopy-imaging mode	✦
Microscope model	Upright
Microscopic object lens	4x, 40x, 60x, 100x
Microscopic ocular lens	10x
Microscope magnification	40x, 400x, 600x, 1000x
Digital camera accuracy	5 megapixel
Software	Connect to PC
Computer operating system	Win 7, 8, 8.1 & 10



technooraan
see more
sensitively



4

microspectrophotometer(Raman)

Technical specification(Ram-532-004)

Laser wavelength	532 nm
Laser model	DPSS Nd:YAG (cw)
Laser power	200 mW
Raman spectral range	150 cm^{-1} - 4000 cm^{-1}
Spectral resolution	0.7 nm (10 cm^{-1})
Spectroscopy time	8 ms - 3600 s
Detector	Back-thinned TE Cooled 1044 x 64 element CCD array
Reflective spectroscopy mode	✦
Reflective imaging mode	✦
Transmission imaging mode	✦
Microscope model	Upright
Microscopic object lens	4x, 10x, 40x, 60x
Microscopic ocular lens	10x
Microscope magnification	40x, 100x, 400x, 600x
Digital camera accuracy	5 megapixel
Software	Connect to PC
Computer operating system	Win 7, 8, 8.1 & 10



Noora 300
High-resolution Spectrometer

www.Technooran.com



technooran

see more
sensitively



technooran
precise Micro-Spectroscopy

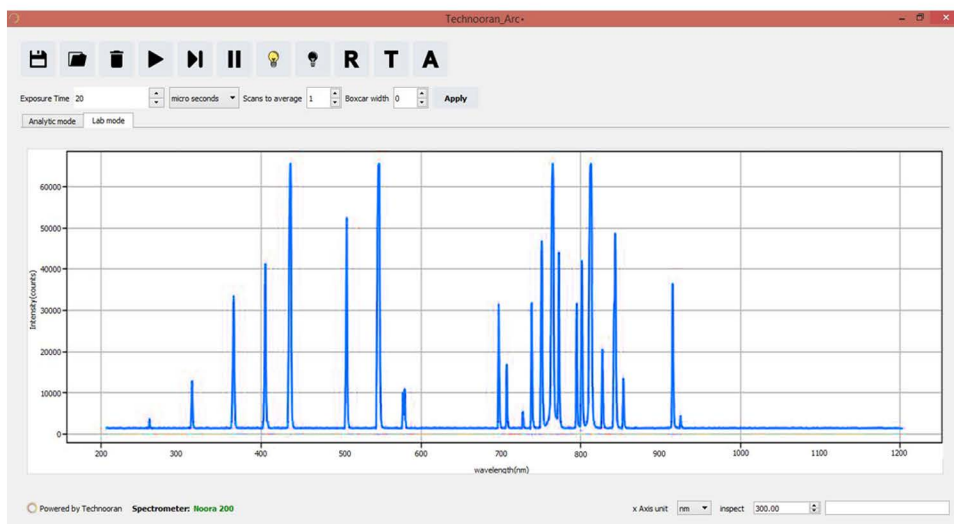
High resolution
Generation of spectrometer with new technology

Small dimensions

Fully customizable based on the choice of spectral
resolution and spectral performance range



Mini spectrometer



Sample of mercury lamp spectrum acquired with Noora spectrometer
in the range of 200-1100 nm with resolution of 1.5 nm

- ◀ Nanotechnology
- ◀ chemistry
- ◀ biology
- ◀ geology
- ◀ calorimetry
- ◀ food industry
- ◀ agriculture
- ◀ pharmacology
- ◀ oil and polymer industry



200

Technical specification(Noora 200)

Detector	Toshiba TCD1304DG linear CCD array
Detector range	200-1100 nm
Pixels	3648 pixels, pixel size of 8 μm x 200 μm
Entrance aperture	5, 10, 25, 50, 100 or 200 μm wide slits
Fiber optic connector	SMA 905
Wavelength range	200-1100 nm (Grating dependent)
Optical resolution	1-2 nm FWHM
Signal-to-noise ratio	550:1 (at full signal)
Interface	USB 2.0 high-speed, 480 Mbps
Dimensions	105 x 95.5 x 62.5 mm ³
Weight	650 g



technoora
see more
sensitively



300

Technical specification(Noora300)







Detector	Toshiba TCD1304DG linear CCD array
Detector range	300-1100 nm
Pixels	3648 pixels, pixel size of 8 μm x 200 μm
Entrance aperture	5, 10, 25, 50, 100 or 200 μm wide slits
Fiber optic connector	SMA 905
Wavelength range	300-1100 nm (Grating dependent)
Optical resolution	1-2 nm FWHM
Signal-to-noise ratio	550:1 (at full signal)
Interface	USB 2.0 high-speed, 480 Mbps
Dimensions	105 x 95.5 x 62.5 mm ³
Weight	650 g



technoran
precise Micro-Spectroscopy



see more
sensitively

 no. 40, Sheikh Bahae Sq, Vanak, Tehran  02173225861 ,09331247771
 www.technooran.com  @technooran  <https://instagram.com/technooran>
 info@technooran.com  <https://linkedin.com/company/technooran>