HRHS-AI

Microscopy and Imaging

One tool to do it all.

Purpose:

Make available the tools to capture the spectra and images of microscopic samples in the UV, VIS, NIR spectrum for research facilities. With the advantage of our HRHS-AI™ technology in image sensing and DAQ, which is common in all the imaging systems worldwide, we would like to make this technology available for research through the collaboration with CRAICT, USA. Image sensors based on HRHS-AI are now at the heart of the microscopic or spectroscopic digital data collection and storage. It stands for 'high resolution, high speed through alternate imaging'

Applicability:

Forensic sciences
Applied surface sciences
Molecular and bimolecular spectroscopy, structure evaluation
Polymer degradation and stability
Nanotechnology
Chemistry
Geology
Vibrational spectroscopy

Products offer Features:

Correlative electrochemical multi-microscopy;
UV-vis-NIR absorbance, reflectance, fluorescence, photoluminescence and even Raman spectra;
Latest technology, solid state cooling, precision optics and advanced electronics;
Illumination system with dual source and high UV output;
Protection against sample photo bleaching;
Spectral range from 200nm – 2500nm;
Calibrated aperture and reproducible sizing, no digital marking to avoid inaccuracies in measurements.

Operating systems: Windows

Software:

Spectral imaging software
Color visualization software
Thin film thickness
Geological analysis
Kinetic micro spectroscopy (spectral response of sample over time)

HRHS-AI

Microscopy and Imaging

One tool to do it all.

Types: Absorbance, reflectance, fluorescence, photoluminescence, polarisation, raman, kinetics with automation and 5D spectral mapping.

Microspectrometer spectral range	200-2500 nm
Microscope imaging spectral range	220-1700 nm
High resolution color imaging	Included
Fluorescence excitation	280-546 nm
Fluoroscence emission	300 – 1000 nm
Imaging range	Deep UV, color, NIR
Spectrometer	CRAICT/PSJ/OSEPL
Samnpling area	1 to 10000 μm^2
Detector cooling	thermoelectric
Spectral resolution	1-15 nm
Full spectrum scan	14 milliseconds
Thin film thickness	From 5 nm

Microspectrometer spectral range	200-2500 nm
Microscope imaging spectral range	220-1700 nm
High resolution color imaging	Included
Fluorescence excitation	280-546 nm
Fluoroscence emission	300 – 1000 nm
Imaging range	Deep UV, color, NIR
Spectrometer	CRAICT/PSJ/OSEPL
Samnpling area	1 to 10000 μm^2
Detector cooling	thermoelectric
Spectral resolution	1-15 nm
Full spectrum scan	14 milliseconds
Thin film thickness	From 5 nm

HRHS-AI

Microscopy and Imaging

One tool to do it all.

Raman micro spectroscopy for microscopes:

Microscopy type	Raman				
Excitation sources					
Excitation λ	405	532	632.8	785	830
Max output(mW)	30	50	30	80	100
Bandwidth (nm)	<0.02 nm				
Laser power ctrl	Neutral density filter				
Detection specifications					
Detector	Cooled CCD				
Grating(lines/mm)	1800			1200	
Det. Range/cm	300	120	100	100	100
Det. Range/cm	5360	2800	1960	2030	1800
Spectral res/cm	17	10	6.5	6.8	6.0
Confocal	yes				
Sampling area	5 µm @50X objective				
Full automation	yes				
5D spectral mapping	yes				

Contents of brochure can be changed anytime without prior notice if required.