

YOUR INSTRUMENT



YOUR SOLUTION

CRAIC



# Microspectroscopy & Imaging. One tool to do it all.

UV-Vis-NIR Absorbance

UV-Vis-NIR Reflectance

Fluorescence

Thin Film Thickness

Photoluminescence

UV-Vis-NIR Polarization

Raman

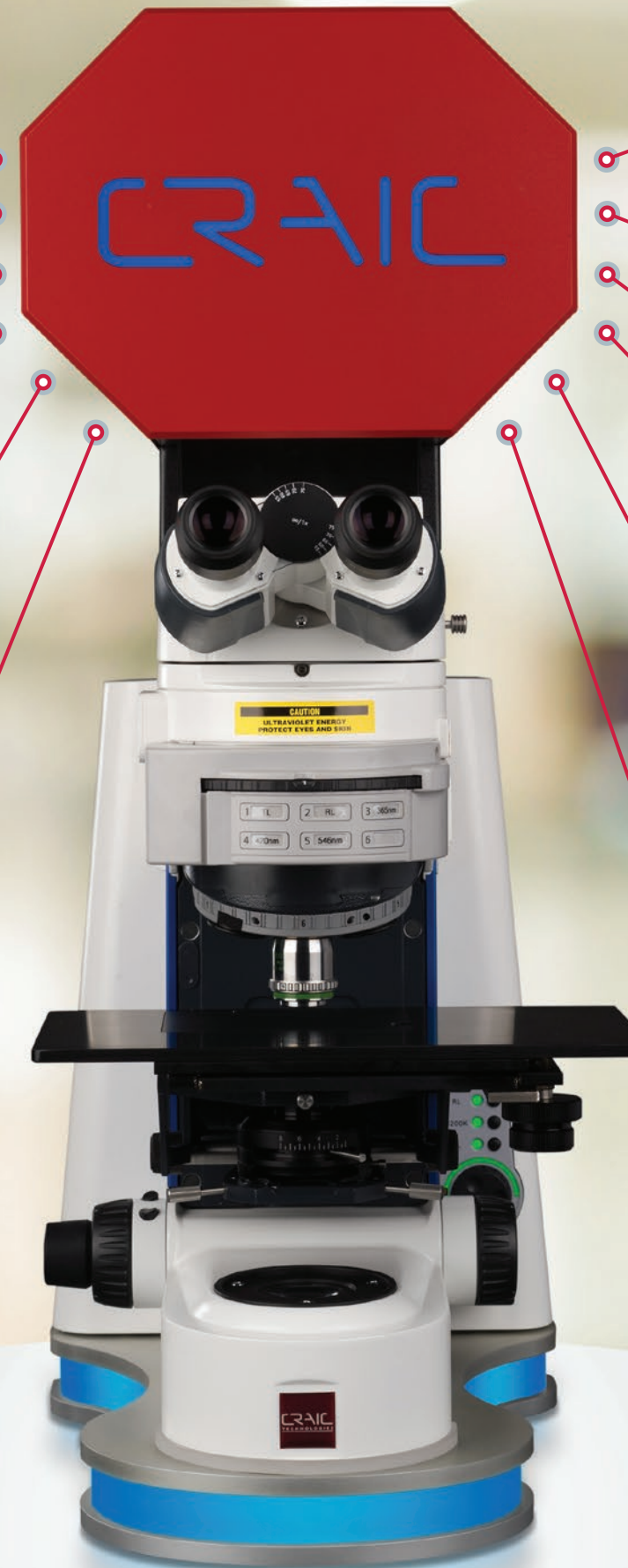
Microcolorimetry

5D Spectral Mapping

Refractive Index Measurements

UV, Visible & NIR Imaging

UV-Vis-NIR Kinetics



CRAC

CAUTION  
ULTRAVIOLET ENERGY  
PROTECT EYES AND SKIN

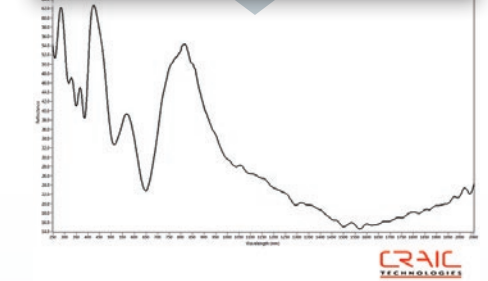
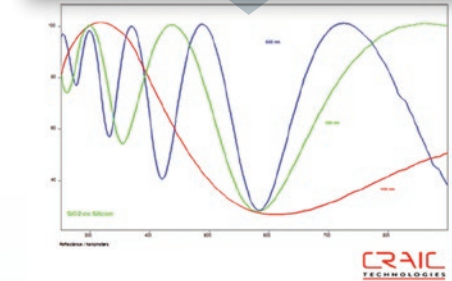
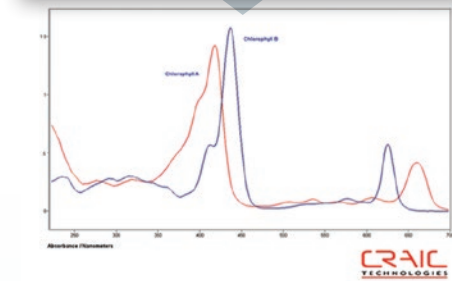
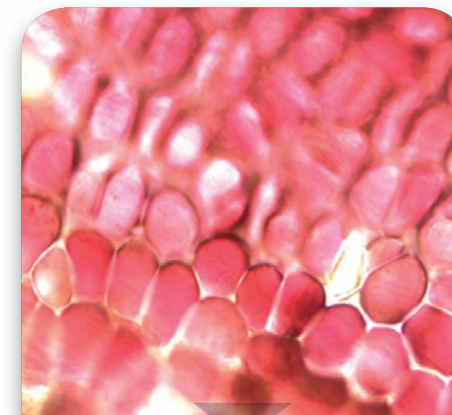
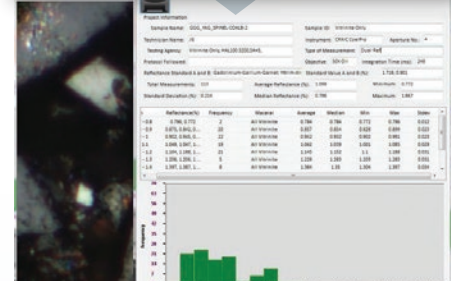
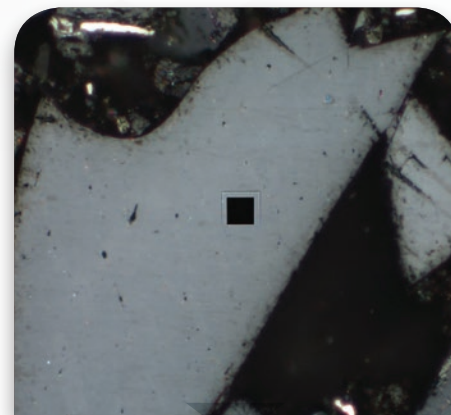
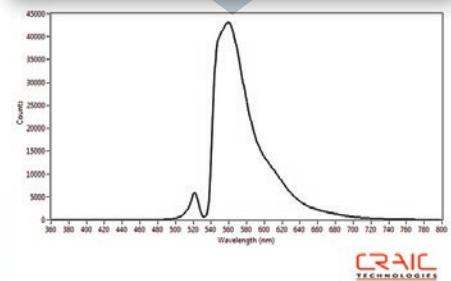
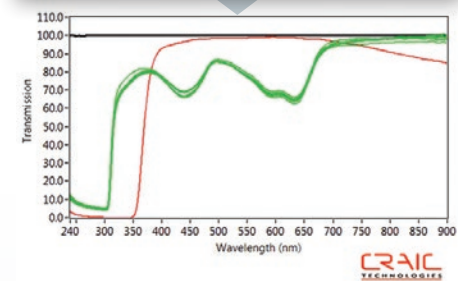
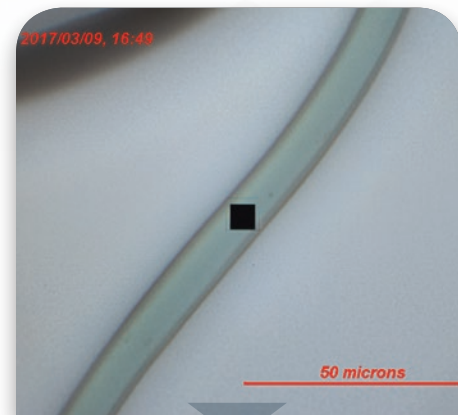
1 L 2 R 3 300nm  
4 400nm 5 540nm 6

CRAC  
MICROANALYSIS



**CRAIC Technologies** microspectrometers combine different types of spectroscopy and imaging for maximum versatility. These flexible tools can tackle challenging microscopic samples with ease. CRAIC microspectrometers are ideal for busy research and industrial laboratories. It is simple to switch between different types of spectroscopy and the solid design ensures reliability and repeatability.

**Microspectrometers** are used in many scientific fields due to their myriad capabilities. Featuring a spectral range from the deep UV to the SWIR, CRAIC microspectrometers are used for many types of spectroscopy of microscopic sized samples. Whether in forensics, chemistry, physics, materials science, CRAIC microspectrometers are there for you.



### Forensic Science

Comparison of trace evidence and questioned documents, including fibers, glass, paint and inks by UV-visible-NIR absorbance, reflectance, polarization and fluorescence microspectroscopy.

CRAIC features for forensic:

- UV-visible-NIR spectral range
- Reproducible sampling apertures
- Reliable & easy-to-use
- Decades of forensic experience

### Materials Science

Study and qualification of novel materials and their optical properties in the UV, visible and NIR spectral regions. This includes the analysis of everything from graphene and carbon nanotubes to surface plasmon resonance in nanoparticles.

CRAIC features for materials:

- UV-visible-NIR absorbance & reflectance
- Raman and fluorescence
- Manual or automated configurations
- Many accessories for your experiments

### Geology

Qualification and quality control of coal, coke, source rock and kerogen by ISO and ASTM standard methodologies. Analysis of geological samples by Raman, UV-vis and Fluorescence microspectroscopy. Additional data can be acquired by photo-luminescence microspectroscopy.

CRAIC features for geology:

- Vitrinite Reflectance Measurements
- Raman and photoluminescence
- UV-vis-NIR transmission & reflectance
- Manual or automated operation

### Biology

UV-visible-NIR micro-imaging as well as microspectral analysis of biological samples ranging from protein crystals to blood cells to plankton and more. Raman and photo-luminescence microspectra™ can be obtained with the same instrument.

CRAIC features for biology:

- Locate protein crystals by UV microscopy
- Qualify protein crystals by UV spectra
- Photoluminescence of dyed samples
- Kinetics & Raman microspectroscopy

### Semiconductors

Small spot thin film thickness measurements with high spatial resolution surface mapping. UV-visible-NIR micro-imaging as well as microspectral analysis to locate and identify contaminants. Colorimetric analysis of single pixels in microdisplays.

CRAIC features for semiconductors:

- High spatial resolution film thickness maps
- Contaminant analysis by UV imaging
- Silicon strain analysis by Raman spectra
- Manual or automated tabletop operation

### Physics

Characterization of new materials and understanding their physics. This includes UV-vis-NIR, PL and Raman spectra in both steady state and in time resolved modes. 5D mapping, including kinetics are also accomplished.

CRAIC features for physics:

- Sample environmental control
- Kinetics & 5D surface mapping
- PL and Raman with UV-vis-NIR microspectra™
- Customizable with CRAIC engineering





Confocal spectroscopy of even sub-micron samples.

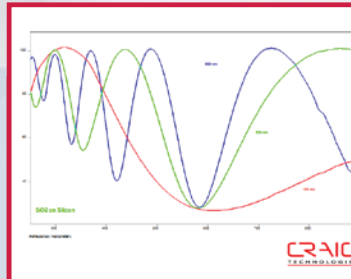
Multiple spectroscopy techniques combined in one instrument.

Multiple imaging techniques all in a single UV-vis-NIR microscope.

Permanently calibrated, absolutely reproducible measurement areas.



A powerful tool designed for reliability, flexibility – to solve your tough problems.



UV-vis-NIR spectral range with sub-micron sampling area.



Combining many types of spectroscopy and imaging in a single tool.

## Multiple Techniques In One Powerful Instrument

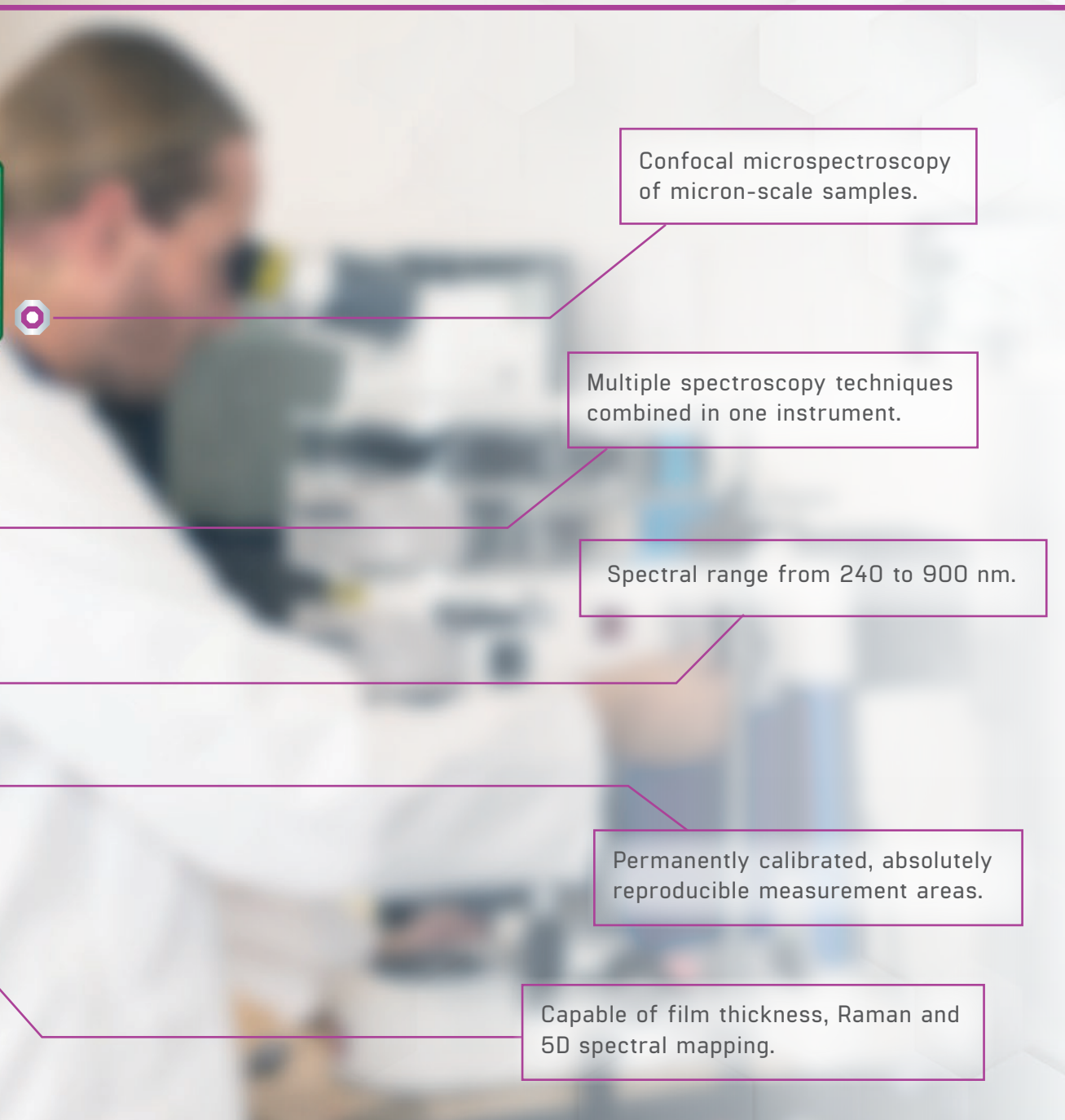
The **20/30 PV™** microspectrophotometer is a bespoke instrument built to meet your exacting needs. A powerful, modular system that combines multiple spectral techniques, the 20/30 PV™ represents the cutting edge standard for microspectrometers. The 20/30 PV™ is a turnkey system configured and built to your requirements. Featuring a spectral range from the deep ultraviolet to the near infrared, this microspectrophotometer is capable of measuring the spectra of even sub-micron samples by absorbance, reflectance, kinetics, polarization, fluorescence and photoluminescence. The 20/30 PV™ is also offered with Raman, thin film thickness measurements and 5D mapping. Incredibly, the system is also capable of high resolution UV-visible-NIR imaging.

Incorporating the latest engineering advances, the 20/30 PV™ features the latest in Lightblades™ spectrometers, a technology designed specifically for high performance Microspectroscopy. The 20/30 PV™ integrates advanced optics, software, hardware and Lightblades™ in a powerful yet flexible instrument. Built as a modular, durable but easy-to-use system, the 20/30 PV™ is the perfect tool to yield the results that you need.

### 20/30 PV™ SPECIFICATIONS

Types of Microspectroscopy	UV-vis-NIR absorbance, reflectance, fluorescence, photoluminescence, polarisation
Raman Microspectroscopy	Apollo II™
Thin Film Thickness	Film thickness ranges from 15 nm and up
Micro-kinetics	Available
5D Mapping	Available
Micro-colorimetry	Available
Microspectrometer Spectral Range	200 - 2500 nm
Microscope Imaging Range	Deep ultraviolet, color and near infra-red
Fluorescence Excitation	250 - 546 nm
Fluorescence Emission	300 - 1000 nm
Spectrometer Model	Lightblades™
Detectors	Scientific grade CCD and InGaAs arrays
Detector Cooling	Thermoelectric
Spectral Resolution	User selectable, 1 - 15 nm
Sampling Area	Variable, 1 - 10,000 microns <sup>2</sup>
Operating System	Windows





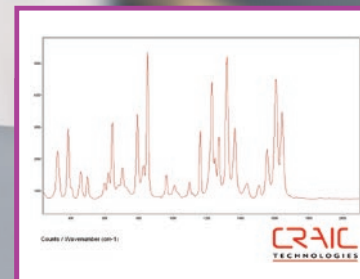
Confocal microspectroscopy of micron-scale samples.

Multiple spectroscopy techniques combined in one instrument.

Spectral range from 240 to 900 nm.

Permanently calibrated, absolutely reproducible measurement areas.

Capable of film thickness, Raman and 5D spectral mapping.



UV-vis-NIR spectroscopy combined with Raman, kinetics and more.



Rugged and reliable yet cost effective.



A powerful yet cost effective instrument designed for your toughest problems.

### Sophisticated UV-visible-NIR Microspectroscopy

**FLEX™** from CRAIC Technologies is an integrated tool to measure the spectra of microscopic samples easily and cost effectively. Capable of absorbance, reflectance, polarization, fluorescence and photoluminescence, FLEX™ is also offered with 5D mapping, thin film thickness and Raman Microspectroscopy. In addition to all these spectral methods, the system is equipped for high resolution color imaging as well as automated operation.

The FLEX™ microspectrometer features the latest in Lightblades™ spectrometers, a technology designed specifically for high performance Microspectroscopy. Integrating advanced optics, software, hardware and the Lightblades™ spectrometers into a powerful yet flexible instrument, FLEX™ is built as a modular, durable but easy-to-use system. By combining all these features, the result is FLEX™: a powerful and rugged scientific instrument built for many years of productive work.

### FLEX™ SPECIFICATIONS

Types of Microspectroscopy	UV-vis-NIR absorbance, reflectance, fluorescence, photoluminescence, polarisation
Raman Microspectroscopy	Apollo II™
Thin Film Thickness	Film thickness ranges from 15 nm and up
Micro-kinetics	Available
5D Mapping	Available
Micro-colorimetry	Available
Microspectrometer Spectral Range	240 - 900 nm
Microscope Imaging Range	High resolution color
Fluorescence Excitation	365 - 546 nm
Fluorescence Emission	400 - 900 nm
Spectrometer Model	Lightblades™
Detectors	Scientific grade CCD and InGaAs arrays
Detector Cooling	Thermoelectric
Spectral Resolution	User selectable, 1 - 15 nm
Sampling Area	Variable, 1 - 10,000 microns <sup>2</sup>
Operating System	Windows



# 508 PV™

## Microscope Spectrophotometer



Add spectroscopy to your microscope now!

Microspectroscopy of even micron sized samples.

Multiple spectroscopy techniques fitted to your microscope

508 PV™ spectral range from 200 to 2100 nm limited only by the microscope.

Permanently calibrated, absolutely reproducible measurement areas.

### Add Spectroscopy to Your Microscope

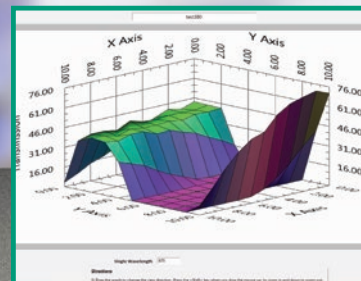
The **508 PV™** is designed to add spectroscopic capabilities to your microscope. Or it can be used to upgrade your old microspectrophotometer. With a spectral range from the deep UV to the near infrared, the 508 PV™ combines multiple forms of spectroscopy along with high resolution color imaging. Fitted to an open photoport on your microscope, the 508 PV™ is able to measure absorbance, reflectance, polarization, fluorescence and photoluminescence.\* Capabilities also include high spatial resolution spectral mapping, kinetics and small spot thin film thickness measurements.

The 508 PV™ is designed to give spectroscopic capabilities to many different microscope makes and models. It is simple to add to an open photoport using CRAIC's universal three axis adapters. This means that the spectrophotometer entrance aperture, the eyepiece image and the camera image can be made both parfocal and parcentral to one another. The 508 PV™ features Lightblades™ spectrophotometer technology, permanently calibrated variable apertures, sophisticated Lambdafire™ control software integrated into an elegant module that will be the centerpiece of your laboratory. Easy-to-use but powerful and durable, the 508 PV™ will give you many years of service.

*\*With a properly configured microscope.*

### 508 PV™ SPECIFICATIONS

Types of Microspectroscopy	UV-vis-NIR absorbance, reflectance, fluorescence, photoluminescence, polarisation
Thin Film Thickness	Film thickness ranges from 15 nm and up
Micro-kinetics	Available
5D Mapping	Available
Micro-colorimetry	Available
Microspectrometer Spectral Range	200 - 2100 nm
Microscope Imaging Range	High resolution color
Fluorescence Excitation	365 - 546 nm
Fluorescence Emission	400 - 900 nm
Spectrometer Model	Lightblades™
Detectors	Scientific grade CCD and InGaAs arrays
Detector Cooling	Thermoelectric
Spectral Resolution	User selectable, 1 - 15 nm
Sampling Area	Variable, 1 - 10,000 microns <sup>2</sup>
Operating System	Windows



Can also be used to spectrally map samples in five dimensions.

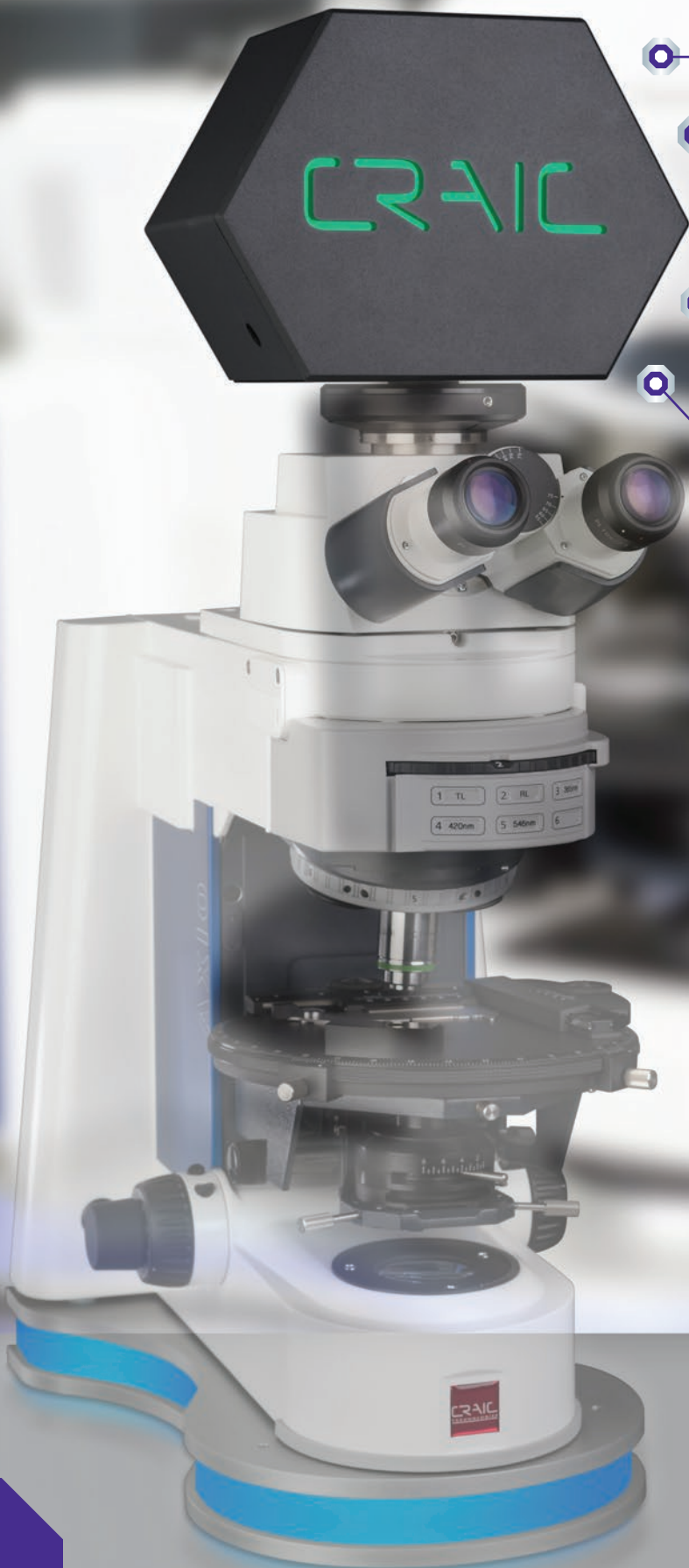


The 508 PV™ can upgrade older microspectrometers of many different makes.



Add spectroscopy and color imaging to your microscope easily and quickly.





Design specifically for vitrinite reflectance measurements.

Exceeds ISO 7404 and ASTM D2798 standard instrument requirements.

Can also be used to measure fluorescent emission at 546 nm.

Fast and easy to use.

Permanently calibrated, absolutely reproducible measurement areas.

### Fast, easy and accurate vitrinite reflectance

The **CoalPro III™** was designed, with the aid of customer input, specifically for optical petrography. Built around the ASTM D2798 and ISO 7404-5 standard test methodologies, the CoalPro III™ is an economical yet powerful tool for grading coal, coke and petroleum source rocks by vitrinite reflectance. Capable of either manual or fully automated operation, the data is presented in industry standard formats, including all relevant histograms. Point counting and even fluorescence measurements may also be done.

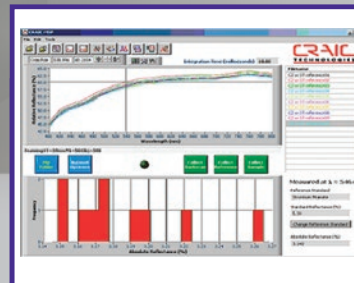
The CoalPro III™ is combined with research grade petrographic microscopes for the highest quality results. Featuring Lightblades™ sensor technology, color imaging and software written specifically for vitrinite reflectance measurements, this instrument is able to rapidly scan and quantify vitrinite containing samples with a high levels of accuracy. With the addition of automation, large numbers of samples can be analyzed in minimal time. With an all-solid state design, this instrument will provide many years of service.

### COALPRO III™ SPECIFICATIONS

Types of Microspectroscopy	Vitrinite reflectance per ISO & ASTM
Automated measurements	Available
Microphotometer Spectral Range	546 nm
Microscope Imaging	Digital Color
Fluorescence Excitation	365 to 546 nm
Fluorescence Emission	546 nm
Detectors	Solid state
Detector Cooling	Thermoelectric
Sampling Area	Variable, 1 to 10000 microns <sup>2</sup>
Operating System	Windows



Fast and reliable vitrinite reflectance measurements.

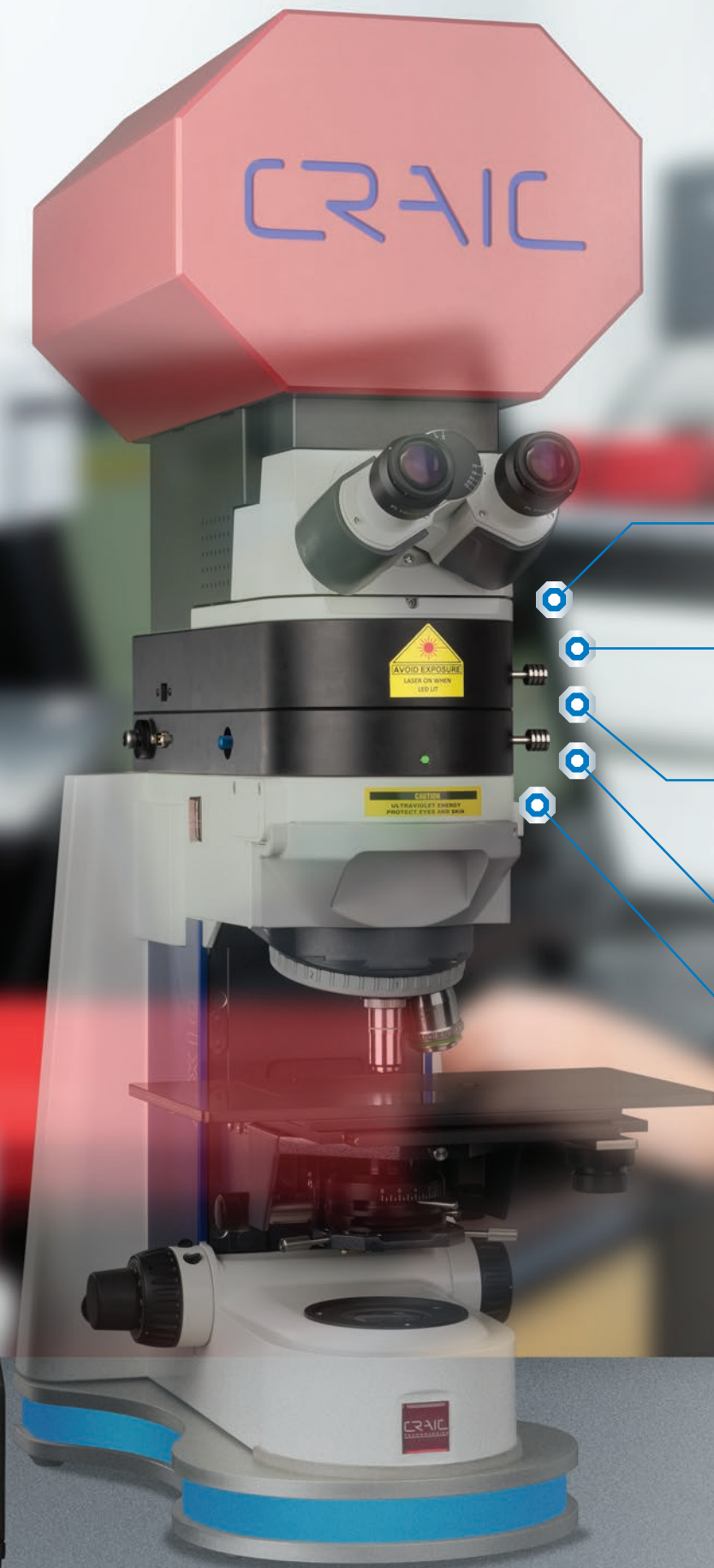


Data presented in industry standard formats.



Also available with calibrated reflectance standards.





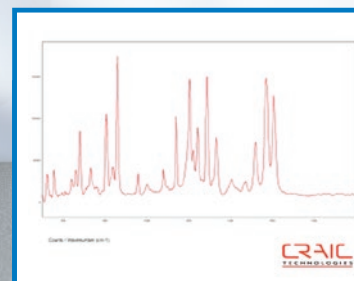
Raman microspectroscopy of micron scale samples.

High spectral resolution, high speed scanning.

High spatial resolution Raman mapping.

Designed for routine research & ease-of-use.

Offered with Class I enclosure.



You configure Apollo™ to meet your requirements.



Rugged and reliable yet the highest quality Raman.

### Modular Raman Microspectroscopy

The **Apollo™** Raman microspectrometer is a flexible yet powerful Raman system that can be used standalone or added to a CRAIC microspectrometer. The Apollo™ is ideal for routine research where high-performance, reliability and ease-of-use are required. Highly automated, yet with a flexible design, the Apollo™ can be configured with a different lasers and Raman spectrometers. As an added feature, the system can also be configured for micro-photoluminescence measurements.

Nobody wants to spend hours setting up their Raman microspectrometer. With this in mind, the Apollo™ is designed to be reliable as well as easy-to-use and flexible. This makes it the perfect tool for daily Raman microspectroscopy. Featuring Lightblades-R™ spectrometer technology, solid state lasers and a robust optical design, Apollo™ will give you many years of quality results with a short learning curve for users.

#### APOLLO™ SPECIFICATIONS

Types of Microspectroscopy	Raman, Photoluminescence
5D Mapping	Available
<b>Excitation Source</b>	
Solid state laser (50 mW)	405 & 532 nm
Solid state laser (100 mW)	638, 785, 830 nm
Microspectral Sensitivity	<0.02 nm
<b>Spectrometer</b>	
Spectrometer Types	Fixed or scanning monochromators offered
Detectors	Scientific grade CCD
Detector Cooling	Thermoelectric
Spectral Range (Fixed monochromator)	100 - 2000 cm <sup>-1</sup>
Sampling Area (20x objective)	5.5 microns diameter
Sampling Area (100x objective)	1.1 microns diameter
Operating System	Windows





Cutting edge UV, color and NIR imaging with high resolution digital cameras fitted to the UVM-1™ microscope.

Full UV-visible-NIR spectral range for transmission, reflectance, fluorescence and polarization imaging.

A modular design concept that allows the addition of microspectroscopy, Raman and photoluminescence and film thickness capabilities.

Offered as manual, semi-automated and fully automated options.

### A True Ultraviolet-Visible-Near Infrared Microscope

The **UVM-1™** is a world-class microscope with a spectral range spanning the deep UV through the visible and NIR regions. This unique microscope is a bespoke instrument built to meet your exacting needs. A powerful, modular system that combines multiple microscopy techniques, the UVM-1™ represents the cutting-edge standard for broadband microscopy. The UVM-1™ is a turnkey system configured and built to your requirements and is capable of imaging even sub-micron samples by absorbance, reflectance, kinetics, polarization, fluorescence and photoluminescence in the UV-visible-NIR spectral regions. Incredibly, the UVM-1™ is also offered with Raman giving you even more power.

Incorporating the latest engineering advances, the UVM-1™ features the latest in CRAIC Technologies advanced optics and light sources. As such a unique microscope, the UVM-1™ integrates advanced optics, software and hardware in a powerful yet flexible instrument. Offered with high resolution UV, color and near IR digital imaging, the UVM-1™ is the perfect tool to yield the microscale imaging results that you need.

#### UVM-1™ SPECIFICATIONS

Microspectrophotometer Range	200 - 2500 nm
Microspectral Range (Fluorescence)	300 - 1000 nm
Detector	CCD (UV-vis) and InGaAs (NIR)
Detector Cooling	Thermoelectric
Color Imaging	5 MP Digital from 400 - 700 nm
UV Imaging	200 - 400 nm
NIR Imaging	900 - 1700 nm
Operating System	Windows



Scientific grade microscope with a UV-visible-NIR range.



UV-vis-NIR imaging in transmission, reflectance, fluorescence and more.



The UVM-1™ can also incorporate UV-vis-NIR and Raman microspectroscopy.





High resolution ultraviolet, color and near infrared digital imaging on a cost-effective stand.

UV-visible-NIR illumination in transmission, reflectance, fluorescence and polarization.

A flexible design that can be upgraded to different types of microspectroscopy, Raman and thin film thickness measurements.

Offered as both manual and semi-automated UV-visible-NIR microscopes.

### Microscopy in the UV-visible-NIR Spectral Region

The **UVM-3™** is a cost-effective microscope for imaging microscale samples in the ultraviolet, visible and NIR regions. Built to meet your requirements, the UVM-3™ is a modular system combining multiple microscopy techniques. The UVM-3™ is a turnkey system configured and built to your specifications and is capable of imaging even sub-micron samples by absorbance, reflectance, kinetics, polarization and fluorescence in the UV-visible-NIR spectral regions. The UVM-3™ can also be fitted with the Apollo™ series so that the system can also collect Raman microspectra™.

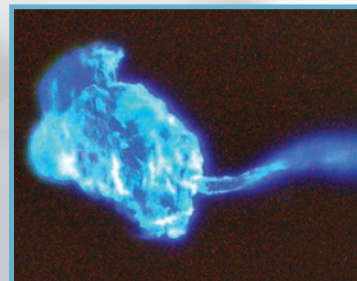
Incorporating advanced optical designs, the UVM-3™ features sophisticated advances in optics, light sources and software from CRAIC Technologies. This powerful yet flexible microscope, unique in its capabilities, integrates advanced optics, software and hardware in a powerful yet cost effective instrument. Offered with high resolution UV, color and near IR digital imaging, the UVM-3™ is the perfect tool to yield the microscale imaging results that you need.

#### UVM-3™ SPECIFICATIONS

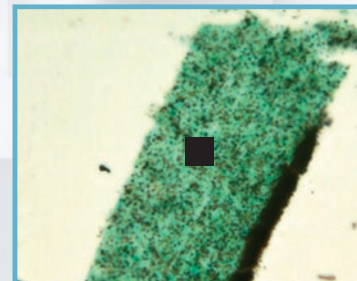
Microscope Spectral Range (Transmission)	240 - 2000 nm
Spectral Range (Reflectance):	300 - 2000 nm
Microspectral Range (Fluorescence)	300 - 1000 nm
Microspectral Resolution (UV-vis)	XXX
Microspectral Resolution (NIR)	XXX
Stray Light	XXX
Microspectral Sensitivity	XXX
Detector	CCD (UV-vis) and InGaAs (NIR)
Detector Cooling	Thermoelectric
Color Imaging	5 MP Digital from 400 - 700 nm
UV Imaging	200 - 400 nm
NIR Imaging	900 - 1700 nm
Operating System	Windows



UV-vis-NIR microscopy with both transmission and incident illumination.



UV-visible-NIR Fluorescence and Photoluminescence imaging capable.



Upgrade to microspectroscopy with the addition of the 508 PV™ and Apollo™.





### Advanced Spectral & Image Analysis

**LambdaFire™** is sophisticated software for controlling your CRAIC microspectrometer and to analyze the imaging and spectral data. Combining both imaging and spectroscopy, LambdaFire™ offers full instrument control and sophisticated image and spectral analysis. Plug-in modules add further functionality to this software including automation, spectral mapping, film thickness measurements and so much more.



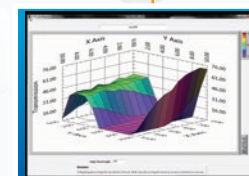
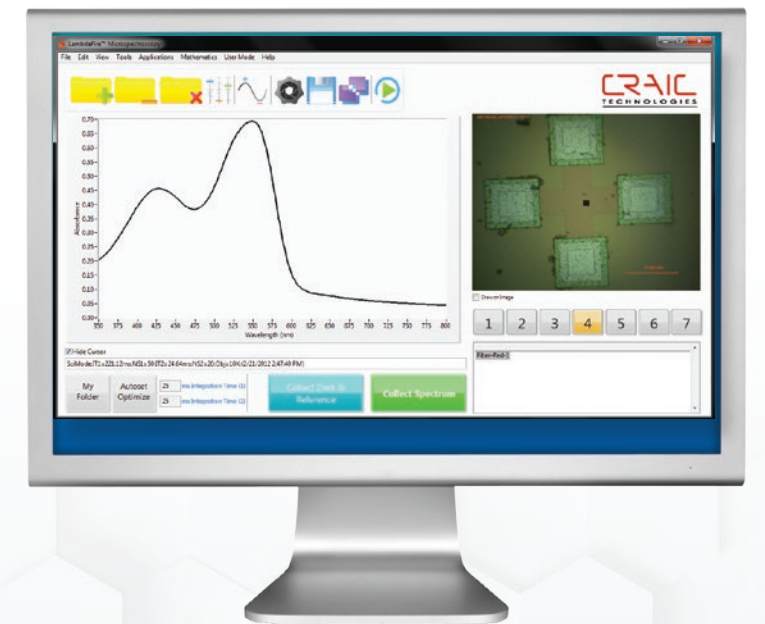
### Powerful, Flexible Software to Meet Your Challenging Projects

CRAIC Technologies **LambdaFire™** software empowers users of CRAIC Technologies' microspectrophotometers with instrument control, spectral acquisition and full video imaging as well as sophisticated spectral, statistical and image analysis algorithms. Running under Windows™ as a native 64-bit program, LambdaFire™ gives you full control of your CRAIC Technologies instruments. This software also gives you the ability to acquire high quality spectra of microscopic samples by transmittance, absorbance, reflectance, polarization, fluorescence, photoluminescence or Raman and then to analyze those microspectra™ and images. Designed for the production environment as well as the laboratory, it incorporates many types of sophisticated tools for analyzing spectra and images. Plug-in modules also add functionality such as kinetic spectroscopy, 5D spectral mapping and film thickness measurements.

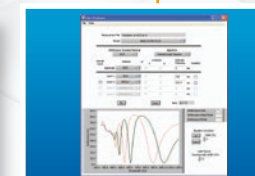
#### LambdaFire™ Software Suite Offers:

- Microspectrophotometer Control and Data Analysis in one easy-to-use package
- Microspectrophotometer automation control and programming
- Perfect for research as well as production with many features specific to each
- Image and spectral analysis features included with instrument control
- Many plug-in modules available to add even more instrument capabilities
- Designed for powerful analysis and ease-of-use from the experts in microspectroscopy.

#### LambdaFire's™ powerful family of modular solutions for your microspectrometer!



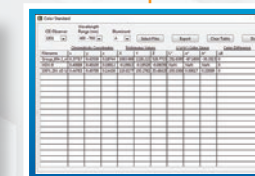
CRAIC 5D Spectral Mapping™



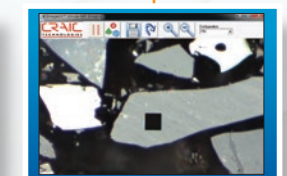
CRAIC FilmPro™ Thin Film Thickness



CRAIC TimePro™ Kinetic Microspectroscopy



CRAIC ColorPro™ Colorimetry Software



GeolImage™ Geological Analysis Software

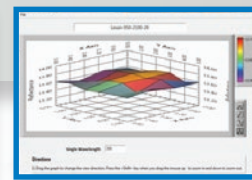


### CRAIC 5D Spectral Mapping™

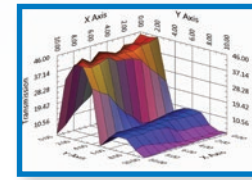
CRAIC Technologies™ 5D Spectral Mapping™ technology allows you to obtain highly detailed maps of the spectral response of objects on the microscopic scale. Featuring sub-micron spatial resolution, maps can be generated with thousands of points of the UV-visible-NIR transmittance, absorbance, reflectance, polarization, fluorescence and emission spectral response. 5D Spectral Mapping™ can also be used to mapping Raman, photoluminescence and kinetic responses as it is able to analyze up to five dimensions of data simultaneously.



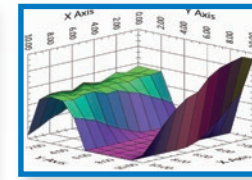
Manual and programmable stage control.



5D Spectral Mapping™ Spectral Plot



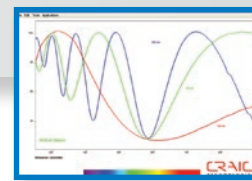
Changes over time may be plotted with 5D data.



High spatial resolution spectroscopy.

### CRAIC FilmPro™ Thin Film Thickness

CRAIC FilmPro™ is able to measure the film thickness values of thin films by reflectance or transmittance. You can do this over microscopic areas and with many different substrates. This allows you to analyze not only thin films on substrates such as silicon, but also thin films on glass or quartz commonly found in flat panel displays and other devices. When combined with 5D Spectral Mapping™, you can generate high spatial resolution maps of film thickness over a surface.



FilmPro™ SiO<sub>2</sub> on Silicon Spectra

FilmPro™ Film Thickness Recipe

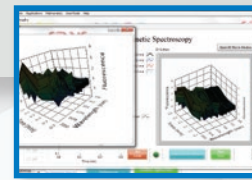


FilmPro™ - Film Thickness Layers Menu

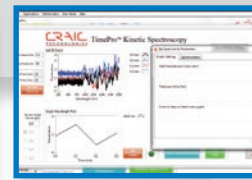
FilmPro™ - Film Thickness Results

### CRAIC TimePro™ Kinetic Microspectroscopy

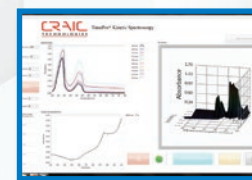
CRAIC TimePro™ allows you to measure the spectral response of microscopic sample areas over time. Able to cover the full UV-visible-NIR range, TimePro™ generates 3D displays over the time intervals you designate. It is capable of measuring the spectra by transmittance, reflectance, emission, polarization or Raman and show how a sample is changing.



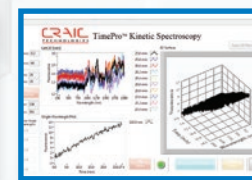
TimePro™ Microscale Kinetic Spectroscopy



TimePro™ Experimental Parameters



TimePro™ 3D View of Current Scans



TimePro™ kinetic microspectroscopy.

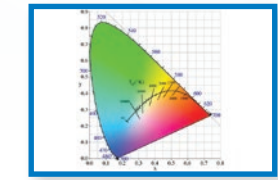
### CRAIC ColorPro™ Colorimetry Software

When added to a CRAIC microspectrometer, you are able to determine the colorimetric values of microscopic samples. Colorimetry calculations can be done on samples as small as 1 micron and on reflectance, transmittance, and even fluorescence microspectra™. Colorimetry spaces calculated with CRAIC microspectrometer data include CIE XYZ, CIE LAB, tristimulus values and more.

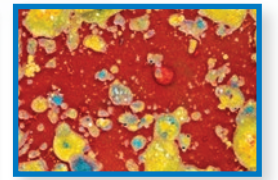


ColorPro™ Color Mask

ColorPro™ CIE Coordinates



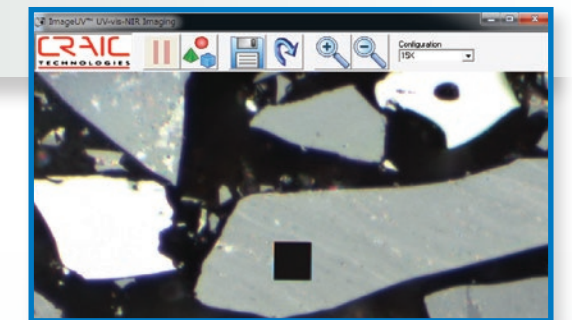
CIE Color Chart



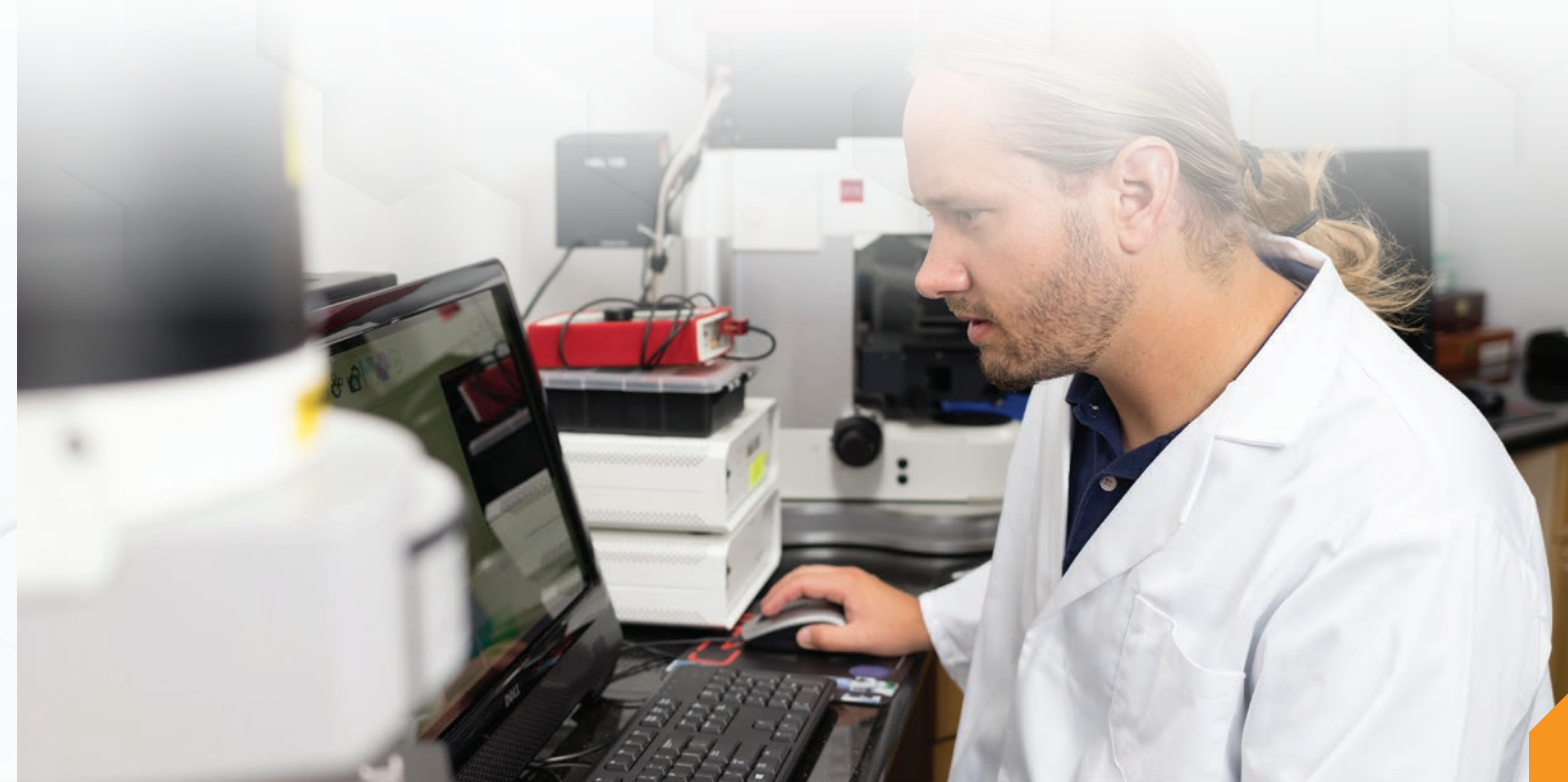
ColorPro™

### GeoImage™ Geological Analysis Software

The CRAIC GeoImage™ is a new tool for geological analysis using only high resolution digital imaging in place of spectroscopy. Images are collected from the camera and are analyzed pixel by pixel to measure vitrinite reflectance. The software can also automatically scan entire samples in addition to having a point counting option.



GeoImage™ software for vitrinite reflectance measurements.





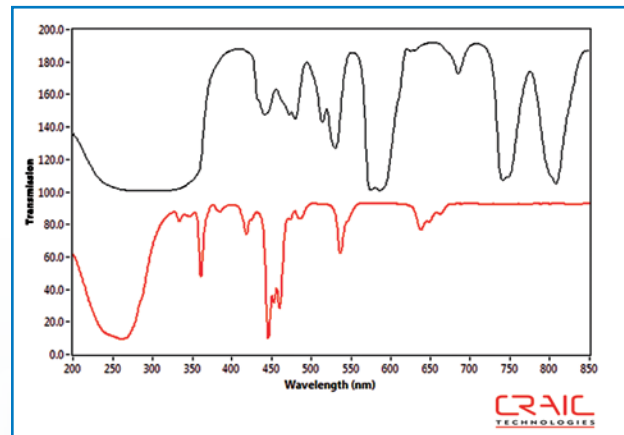
**CRAIC Technologies™** is the world's leader in developing standards to check the calibration and accuracy of UV-visible-NIR and Raman microspectrophotometers. CRAIC standards are designed to meet ASTM, ISO and SWGMAT guidelines for spectral instrument usage. Standards can also be made traceable to NIST and other internationally recognized certifying bodies' reference materials. And if the standards are used with CRAIC microspectrophotometers, the calibration routine is automated with a full report printed out at the completion of the test series. CRAIC standards are another facet of our complete solution to microspectroscopy.



Wavelength and Photometric Standards traceable to NIST, offered in both transmittance and reflectance capabilities in order to calibrate your microspectrophotometer.



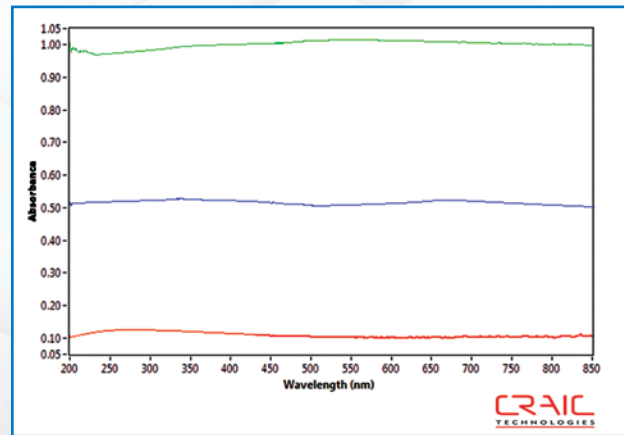
Reflectance Microspectrophotometer Standards traceable to NIST for easy and accurate microspectrophotometer calibration. Fluorescence, Diffuse, Specular, White, and color standards also available for precise measurements and reference use.



Microspectrophotometer calibration check using the standards traceable to NIST via LambdaFire™: Holmium and Didymium spectra stacked for photometric accuracy.



Vitrinite reflectance standards available in a wide range of reflectivity levels.



Microspectrophotometer wavelength calibration check using the standards traceable to NIST via LambdaFire™.

### Backed by a network of experienced scientists and service engineers.

With CRAIC Technologies Service, you've got the power of CRAIC Technologies™ on your side. Our solutions are focused on customer value creation through improving instrument performance, increasing uptime/efficiency and driving lab productivity. CRAIC Technologies Service offerings include:

#### Rapid response

CRAIC Technologies™ offers technical and support services with a team of highly experienced service professionals. With a fully computerized system, your service engineer will provide you with the most effective and responsive service in the industry.

### Applications expertise and support

CRAIC Technologies™ has more UV-visible-NIR microspectrometer specialists than any other instrument manufacturer, offering superior applications support. Our extensive industry knowledge and depth of our support staff assure you of a rapid solution to any problem.

### Preventing downtime with on-demand service when you need it

With CRAIC Technologies Service Plans, you are assured of rapid response to your microspectrophotometer repair request.

### Concierge Service Plans

#### Platinum Service

This plan offers highest priority phone and email responses. In addition, this plan receives full parts and labor coverage. If needed, prompt on-site service.

#### Gold Service

This plan offers a high priority with rapid phone and email response times. If necessary, scheduled on-site service can be performed.

#### Silver Service

This plan includes phone and email support with discounted rates for on-site service calls.





# YOUR INSTRUMENT



# YOUR SOLUTION

# CRAIC

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