



NANOTECHNOLOGY

The McCrone Group offers you expertise in the analysis of nanomaterials and nanocomposites. Our team of scientists at McCrone Associates has unmatched experience in solving a wide range of nanomaterials characterization problems. The diverse faculty of experts at Hooke College of Applied Sciences can teach you cutting-edge techniques, and the knowledgeable McCrone Microscopes & Accessories sales team will help you configure the instruments to meet the analytical needs in your laboratory. From analysis to education to instruments, The McCrone Group is your premier microscopy resource for characterization of nanomaterials and nanocomposites.



ANALYSIS •  **McCRONE**[™]
ASSOCIATES, INC.

McCrone Associates is focused on solving particle identification and materials problems. Our staff scientists use state-of-the-art instruments and techniques to provide you with reliable, confidential analysis of your nanomaterials. All services begin with an evaluation of your problem and continue with a collaborative discussion about your project and an analytical approach, followed by sample analysis and discussion of the results. We are ISO/IEC 17025:2017 A2LA accredited (certificate #3631.01), and registered with the FDA, GDUFA, and DEA. Coordinate your project needs by contacting one of our project leaders.

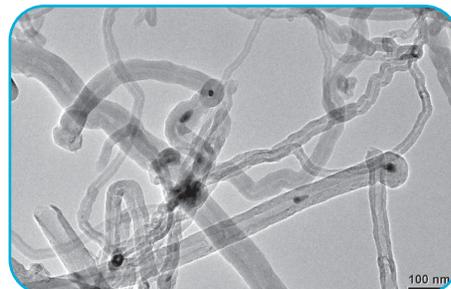
Analytical Services:

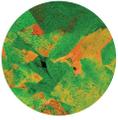
- High-resolution transmission and field emission scanning electron microscopies
- High-resolution imaging for particle size, morphology, homogeneity and dispersion
- High-spatial-resolution elemental and electronic state analysis
- Crystalline phase identification by electron diffraction
- Crystalline phase identification by micro-XRD
- Phase distribution/segregation
- Raman spectroscopic analysis of carbon nanotubes
- Contaminant identification
- Product comparisons
- Assist with new product development

Common Samples:

- Carbon nanotubes
- Colloidal suspensions for chemical mechanical polishing (CMP)
- Nanoparticles for drug delivery and personal care products
- Polymer nanocomposites containing dispersions of clay, carbon black or carbon nanotubes
- Quantum dots
- Environmental and workplace hygiene monitoring samples
- Nanomaterials for catalysis

Transmission electron micrograph of carbon nanotubes and metal catalyst particles.





EDUCATION ·



HOOKE COLLEGE™
OF APPLIED SCIENCES

Hooke College of Applied Sciences offers on-demand, online courses that explore a variety of techniques and instruments. Your instructors, who each have more than 20 years of direct laboratory experience solving current industry challenges, deliver high-quality microscopy and microanalysis courses that provide the essential skills needed for problem solving back at your own laboratory. IACET certification ensures best practices in education are implemented.

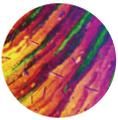
Let us collaborate with you to design a custom course. Depending on the level of customization required and the number of employees to be trained, custom training solutions can often be more cost effective than sending the same individuals to an open enrollment course. As an added bonus, learning activities built into the courses provide great team-building opportunities.

Our online courses include:

- Polarized Light Microscopy
- Scanning Electron Microscopy
- Infrared Microscopy



Professionally produced videos recorded in several perspectives help you understand the methods and lesson material.



INSTRUMENTS ·

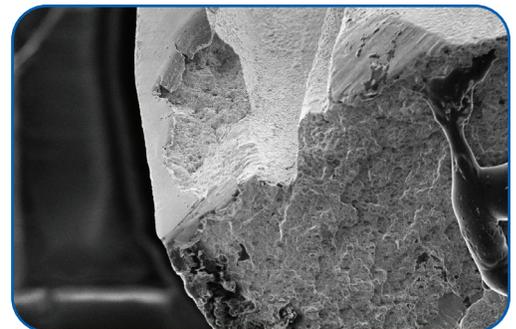


McCRONE™
MICROSCOPES & ACCESSORIES

McCrone Microscopes & Accessories offers you proven microscopy equipment and accessories for a variety of nanotechnology applications. Our technical sales team has helped create custom instrument packages to fulfill the needs and specifications of laboratories around the country. We can help outfit your entire lab and provide ongoing product training and support.

Our products include:

- Nikon Microscopes
- Nikon Measuring and X-Ray Systems
- JEOL NeoScope JCM-7000 Benchtop SEM with EDS
- Linkam Thermal Stages
- Timegate PicoRaman
- McCrone Micronizing Mills
- Retsch Mills
- Hirox Digital Microscopes
- Motic Microscopes
- Digital Imaging Systems
- Microscope Accessories/Tools
- Lab Supplies
- Cleaning, Calibration, Installation and Training
- References and Resources



Magnify images from 10X to 60,000X with the compact JEOL JCM-7000 benchtop SEM, now with optional EDS for elemental identification.



THE McCRONE GROUP™

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