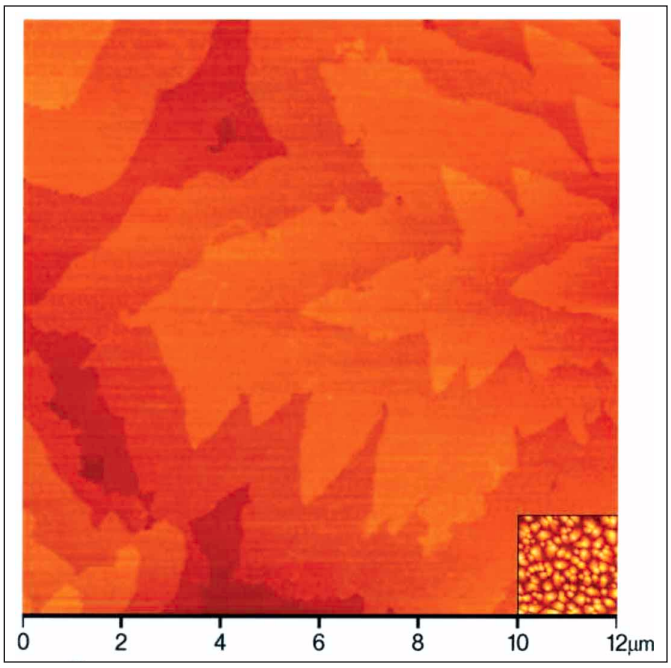
Cornell Announces Results of Materials Images Competition

The Department of Materials Science and Engineering (MSE) at Cornell University announces the results of its first Microscopy Image Competition: Images in the Material World, which it co-sponsored with the Delta Chapter of Alpha Sigma Mu. Three awards were given in two categories: Most Scientifically Significant Image and Most Artistic Image. Prizes of digital cameras have been made available through the generosity of the Eastman Kodak Company.

The competition was the first in what is expected to be an annual event promoted to undergraduate students in the United States and Canada. The entrants were judged by Stephen Sass, a professor in the MSE department, and Christopher Ober, director and professor in the department. The next competition is planned for this fall; details will be posted on the MSE Web site at www.mse.cornell.edu.

Most Scientifically Significant Image

1st Place

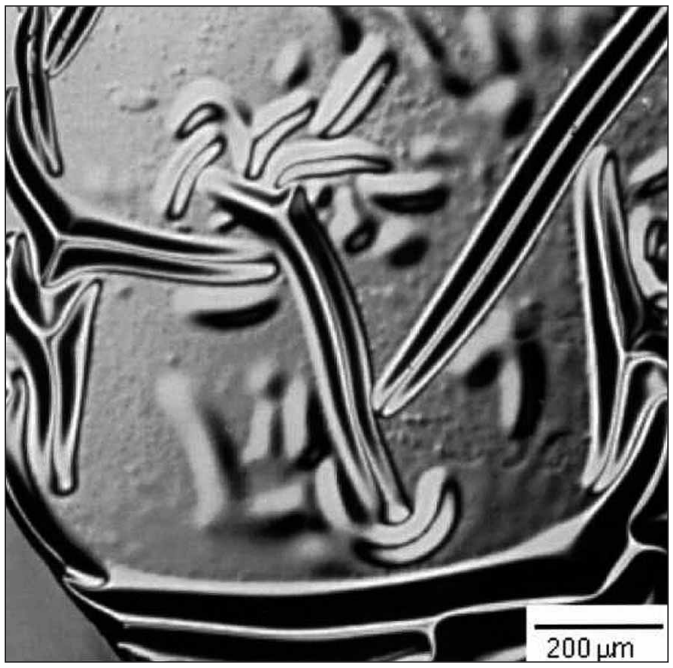


Pentacene Growth at Elevated Temperature
Christopher Johnson, Cornell University

Imaging: Atomic Force Microscope
Description: A segment of a remarkably large grain of pentacene grown on a silicon substrate at elevated temperature with inset of pentacene growth at room temperature.

Most Artistic Image

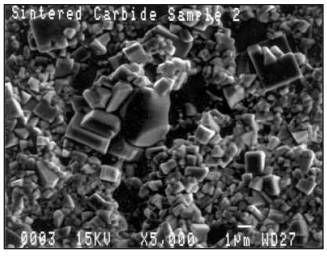
1st Place



Platinum Palm Tree
Megan Cordill, Washington State University

Imaging: Optical Microscope
Description: Straight buckles spontaneously formed in a palm tree shape after sputter deposition of a platinum film on SiO_2.

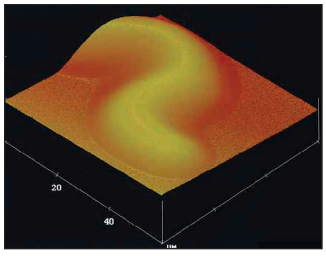
2nd Place



Structural Surface View of a Sintered Carbide Sample
Nagesh Rao
Rensselaer Polytechnic Institute

Imaging: Scanning Electron Microscope
Description: A sintered carbide sample's surface structure at 5000× magnification using a working distance of 27 mm. Crystal structures of 1-μm-size can be seen in the collage of the grain boundaries.

3rd Place



Platinum Worm
Megan Cordill
Washington State University

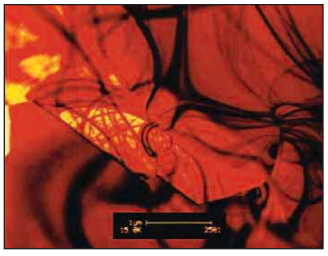
Imaging: Atomic Force Microscope
Description: A thin film of SiO_2 spontaneously delaminated forming telephone cord buckles.

2nd Place

Microstructure of a 319-Aluminum Alloy
Jonathan Liddy
University of Connecticut

Imaging: Optical Microscope, negative photo image
Description: Microstructure of a 319-aluminum alloy (7.47Si-3.84Cu-0.47Fe-0.24Mg-0.613Zn-0.29Mn-0.14Ti), heat treated at 505°C for 6 h, quenched, and aged at 230°C for 3.5 h. Black is the alpha phase (matrix); yellow is the Si phase (Al_2Cu); and impurities are colored red, green, and purple.

3rd Place



Hot!
Joel LeBret
Washington State University

Imaging: Transmission Electron Microscope
Description: A crack and interference fringes combined to produce this effect in this specimen of vanadate.

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