

John A Rogers

From: Materials Research Society (MRS) [enews2@lucy.mrs.org]
Sent: Friday, December 01, 2006 1:21 PM
To: jrogers@uiuc.edu
Subject: 2006 MRS Fall Meeting Scene - Day 5



MRS Meeting Scene

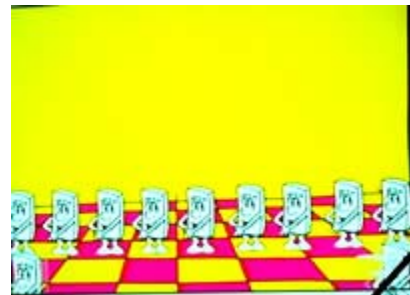
Day 5 - Thursday, November 29, 2006

Daily dispatch from Boston. Bringing you the very best of MRS.



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The [2006 MRS Fall Meeting](#) reached its penultimate day on Thursday. This was again a full day of talks, the fourth day of posters and the final day of the exhibit. One of the highlights of the day was the first MRS scientific film festival.



Symposium X - Frontiers of Materials Research MRS Scientific Film Festival

The Materials Research Society inaugural materials film festival announced winners of the top three films in two categories: amateur and professional. Voting was done during the week of the meeting by meeting attendees. The announcements and viewing of the winning films were held as part of Symposium X on Thursday, November 30.

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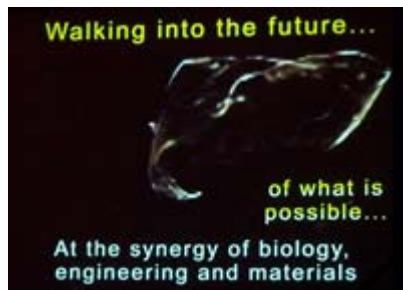
Amateur Category

1st place:



"Gecko . On Shape and Function of Gecko Foot-Hair", by Jose Berengueres, Tokyo Institute of Technology

2nd place:



"Muscular Thin Films: Biohybrid Materials for Soft Robotics" by Adam Walter Feinberg, Harvard University

3rd place:



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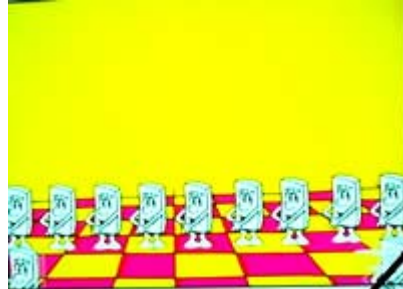


Bruker AXS Inc.

X-ray Diffraction for Materials

"Material Combat", by Jonathan Lee Hollander, University of Cambridge

Professional Category
1st place:



"Get Perpendicular" by Zvonimir Bandic, Hitachi Research

2nd place:



"When Things Get Small" by Ivan Kohn Schuller, University of California, San Diego

3rd place:



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"Stretchable Silicon", by Alex Jerez, Beckman Institute, University of Illinois

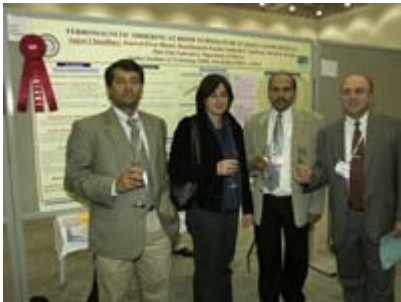
Poster Awards



D15.17

[Far-Field Arrangement of Proteins in a Zero-mode Waveguide for Single Molecule Imaging](#)

Takashi Tani¹, Hironori Sonobe¹, Rena Akahori¹, Takeo Miyake¹, Taro Ueno², Takashi Funatsu², Naonobu Shimamoto¹ and Iwao Ohdomari¹; ¹School of Sci. & Eng., Waseda University, Tokyo, Japan; ²Graduate School of Pharmaceutical Sciences, The University of Tokyo, Tokyo, Japan.



K10.1

[Ferromagnetic Ordering at Room Temperature in Co:ZnO Nanoparticles](#)

Sujeet Chaudhary, Kanwalpreet Bhatti, Shankhamala Kundu, Subhash C Kashyap and Dinesh K Pandya; Thin Film Laboratory, Department of Physics, Indian Institute of Technology, New Delhi 110 016, India.

Technical Presentations - A Sampling

Symposium KK

Imaging Magnetic Nanocrystals in Bacteria using Electron Holography and Tomography

Magnetotactic bacteria are aquatic bacterial species that orient and migrate along geomagnetic field lines. This behavior has been traced to the presence of intracellular ferrimagnetic nanosized mineral grains of magnetite (Fe_3O_4 , Iron Oxide) or greigite (Fe_3S_4 , iron sulfide). Different strains of bacteria have different crystal sizes, shapes and arrangements. In his presentation in symposium KK (9.3), Rafal Dunin-Borkowski of the University of Cambridge, United Kingdom, presented a study of the magnetic microstructures, chemical compositions, and three-dimensional morphologies and positions of iron oxide and iron sulfide crystals in air-dried cells of magnetotactic bacteria. The researchers used electron holography and tomography primarily along with other transmission electron microscopy techniques including energy-filtered imaging, selected-area electron diffraction, and high-resolution imaging to characterize the specimens.



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