

2010
MRS



SPRING
MEETING
San Francisco, CA • April 5–9

CALL FOR PAPERS

Abstract Deadline: November 2, 2009

REMINDER:
In fairness to all potential authors,
late abstracts will not be accepted.

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MRS Symposium O: Multifunctional Nanoparticle Systems—Coupled Behavior and Applications

Multifunctional nanoparticle systems integrate multiple functional inorganic or organic building blocks, thus providing improved or new material properties unavailable from a single component. The integration and coupling between functions allows multiple tasks to be carried out on a single platform. For example, systems combining magnetic nanoparticles and quantum dots can allow for simultaneous imaging and treatment of cancer or can enable magnetic manipulation of chromophores. Hybrid inorganic-organic and purely inorganic multifunctional nanoparticle systems are potentially useful in diverse fields, including medical diagnostics and therapy and biological/environmental sensing, catalysis, and responsive materials. It is also crucial to further develop synthetic approaches for multifunctional nanoparticle systems and to investigate their coupled properties and collective behaviors.

Topics of Interest Include:

- Synthesis and characterization of multifunctional nanoparticle systems
- Coupled and collective behaviors in multifunctional nanoparticle systems
- Multifunctional nanoparticles for medical diagnostics and therapy
- Multifunctional nanoparticles for biological and environmental sensing
- Actively coupled polymer-nanoparticle systems
- Multifunctional nanoparticles in catalysis

A joint session with Symposium N: *Functional Oxide Nanostructures and Heterostructures* is being planned.

A tutorial complementing this symposium is tentatively planned. Further information will be included in the program that will be available online in January.

Invited speakers include:

Uri Banin (Hebrew Univ. of Jerusalem, Israel), **Ravi V. Bellamkonda** (Georgia Inst. of Technology), **Michael R. Bockstaller** (Carnegie Mellon Univ.), **Wei Chen** (Univ. of Texas-Arlington), **Richard M. Crooks** (Univ. of Texas-Austin), **Yi Ding** (Shandong Univ., China), **Xiaohu Gao** (Univ. of Washington), **Byron D. Gates** (Simon Fraser Univ., Canada), **Piotr Grodzinski** (National Insts. of Health), **Naomi J. Halas** (Rice Univ.), **Quanxi Jia** (Los Alamos National Lab), **Raoul Kopelman** (Univ. of Michigan-Ann Arbor), **Kannan M. Krishnan** (Univ. of Washington), **Victor S.-Y. Lin** (Iowa State Univ.), **Luis M. Liz-Marzán** (Univ. of Vigo, Spain), **Sara A. Majetich** (Carnegie Mellon Univ.), **Catherine J. Murphy** (Univ. of South Carolina), **Shuming Nie** (Emory Univ.), **Huisheng Peng** (Fudan Univ., China), **Jeffrey Pyun** (Univ. of Arizona), **Michael J. Sailor** (Univ. of California-San Diego), **Yanlin Song** (Chinese Academy of Sciences, P. R. China), **Shouheng Sun** (Brown Univ.), **Zhonglin Wang** (Georgia Inst. of Technology), **Younan Xia** (Washington Univ.), **Bing Xu** (Brandeis Univ.), **Hong Yang** (Univ. of Rochester), and **Jin Zhang** (Univ. of California-Santa Cruz).

Symposium Organizers

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