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# CALL FOR PAPERS

**ABSTRACT DEADLINE: NOVEMBER 1, 2005**

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

## MRS Symposium O: Hybrid Organic/Inorganic/Metallic Electronic and Optical Devices

This symposium will provide an interactive forum for a discussion of multidisciplinary science and technology of integration of chemically dissimilar materials into active or passive electrical and optical devices. The symposium will examine the unique optical and electronic properties that arise in mixed structures containing molecular and polymeric materials, semiconducting nanocrystals, nanorods or nanotubes, metal thin films, or metal nanoparticles. The topics will emphasize the chemical and physical aspects of the hybrid material design, synthesis, processing, fabrication, and device applications.

Papers are solicited in the following areas:

### **Hybrid Electronic Devices**

- Light-emitting-diode materials and devices
- Photovoltaic materials and devices
- Memory storage elements
- Thin-film field-effect transistors

### **Hybrid Electronic and Optical Materials**

- Material design
- Material synthesis

### **Photonic Applications of Hybrid Materials**

- Electro-optic materials
- Photorefractive materials

### **Plasmonic Effects in Hybrid/Metal Nanoparticle Structures**

- Energy propagation in plasmonic structures
- Assembling plasmonic structures

### **Thin Films of Hybrid Structures**

- Self-assembled film structures
- Guided assembly of hybrid structures
- Techniques and devices based on self-assembled systems

### **Patterning and Fabrication**

- Fabrication techniques that utilize hybrid thin films
- Patterning of hybrid thin film

### **Modeling of Hybrid Materials**

- Electronic energy structure
- Optical field analysis

**Invited speakers** include: **Paul Alivisatos** (Univ. of California-Berkeley), **Marc A. Baldo** and **Moungi Bawendi** (Massachusetts Inst. of Technology), **Louisa Bozano** (IBM Almaden Research Ctr.), **Marc Brongersma** (Stanford Univ.), **Stephen R. Forrest** (Princeton Univ.), **Neil Greenham** (Univ. of Cambridge, United Kingdom), **Cherie R. Kagan** and **Christopher B. Murray** (IBM T.J. Watson Research Ctr.), **Arto Nurmikko** (Brown Univ.), **Edward H. Sargent** (Univ. of Toronto, Canada), **Jonathan Steckel** (QD Vision), and **Yang Yang** (Univ. of California-Los Angeles).

## Symposium Organizers

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