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**ABSTRACT DEADLINE: NOVEMBER 1, 2005**

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

## MRS Symposium N: Molecular-Scale Electronics

During the last few years, many new molecular-scale electronic phenomena like molecular switching, negative differential resistance, and molecular diodes have been observed. This has led to the possibility of developing nanoelectronic devices such as molecular memory, molecular processors, and molecular electronic sensors. However, as attempts to assemble such molecular electronic devices proceed, it has become apparent that several critical basic research issues involving molecular conductance, as well as the fundamental relation between molecular structure and measured nonlinear electronic behavior, need to be comprehensively understood. Finally, new experimental and theoretical approaches are being developed to enhance our understanding of molecular-scale electronics.

In view of the above, the current symposium aims to address the following key topical areas:

- *In-situ* spectroscopies
- Single-molecule measurements
- Semiconductor-molecule junctions
- Bioelectronics

**Invited speakers** include: **T. Bjørnholm** (Univ. of Copenhagen, Denmark), **J. Chen** (IBM T.J. Watson Research Ctr.), **S. Datta** (Purdue Univ.), **M. Di Ventra** (Univ. of California-San Diego), **F. Evers** (Forschungszentrum Karlsruhe, Germany), **D. Frisbie** (Univ. of Minnesota), **J. Hsu** (Sandia National Labs), **D. Janes** (Purdue Univ.), **M. Mayor** (Univ. of Basel, Switzerland), **R. Nichols** (Univ. of Liverpool, United Kingdom), **M. Ratner** (Northwestern Univ.), **M. Reed** (Yale Univ.), **J. Reimers** (Univ. of Sydney, Australia), **D. Stewart** (Hewlett Packard), **J. van Ruitenbeek** (Leiden Univ., The Netherlands), **R. van Zee** (National Inst. of Standards & Technology), **P. Weiss** (Pennsylvania State Univ.), and **X.Y. Zhu** (Univ. of Minnesota).

## Symposium Organizers

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