

Submission Deadline—July 15, 2011



Plasma and Ion-Beam Assisted Materials Processing

Advanced methods of plasma-based deposition and functionalizing surface treatments enable local control of material chemistry with a high degree of freedom through complex interactions and out-of-equilibrium conditions. **In March 2012, *Journal of Materials Research* will publish a special Focus Issue** highlighting the state of the art of plasma chemistry and physics for materials synthesis. Current progress in low energy (>5kV) ion-beam processing of surfaces, thin films, and nanostructures will also be featured.

Contributed papers are solicited in the following areas:

- ◆ Plasma-based ion implantation, subplantation, etching, and deposition
- ◆ Ionized physical vapor deposition
- ◆ Progress in plasma-based methods for TCO synthesis and growth
- ◆ Filtered cathodic arc deposition of metastable nitrides and carbides
- ◆ High-power impulse magnetron sputtering of novel thin-film materials
- ◆ Phase formation in oxide layers synthesized by pulsed deposition techniques
- ◆ New applications of plasma-immersion ion implantation and deposition
- ◆ Hybrid physical vapor deposition for preparation of nanocomposite films
- ◆ Plasma-assisted chemical vapor deposition
- ◆ Surface functionalization using atmospheric DBD treatments

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MANUSCRIPT SUBMISSION

To be considered for this issue, new and previously unpublished results significant to the development of this field should be presented. **The manuscripts must be submitted via the JMR electronic submission system by July 15, 2011.** Manuscripts submitted after this deadline will not be considered for the issue due to time constraints on the review process. Submission instructions may be found at www.mrs.org/jmr-instructions. Please select "Focus Issue: *Plasma and Ion-Beam Assisted Materials Processing*" as the manuscript type. All manuscripts will be reviewed in a normal but expedited fashion. **Papers submitted by the deadline and subsequently accepted will be published in the Focus Issue.** Other manuscripts that are acceptable but cannot be included in the issue will be scheduled for publication in a subsequent issue of *JMR*.

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