Nano and Giga Challenges in Electronics and Photonics to Be Held in March 2007

http://asdn.net/ngc2007/

Nano and Giga Challenges in Electronics and Photonics (NGC2007): From Atoms to Materials to Devices to System Architecture will be held March 12–16, 2007, in Phoenix, Ariz. The conference chairs are Herbert Goronkin (NanoBusiness Alliance), Stephen Goodnick (Arizona State University), and Anatoli Korkin (Nano and Giga Solutions, Inc.).

Following the first Nano and Giga Challenges in Microelectronics forums in Moscow (NGCM2002) and in Krakow (NGCM2004), this third meeting will be held in Phoenix, hosted by Arizona State University in cooperation with Nano and Giga Solutions, Inc.

Microelectronics technologies have reached a new stage in their development: the latest miniaturization of electronic devices is approaching atomic dimensions, interconnect bottlenecks are limiting circuit speeds, new materials are being introduced into microelectronics manufacture at an unprecedented rate, and alternative technologies to mainstream complementary metal oxide semiconductors are being considered. The 2007 forum invites academic and industrial researchers to present tutorial, expository, and original research papers dedicated to the scientific and advanced technological problems related to the ultimate merge of micro- and nanoelectronics and photonics. The program includes plenary talks in the morning and parallel sessions (oral and poster presentations) in the afternoon. In addition to the technical and tutorial sessions, the Technology–Business Interface: From Ideas to Enterprises section will provide a forum for discussions of novel products, technologies, and the commercialization of scientific inventions in nanoelectronics and photonics.

Invited speakers include J. Baumberg, University of Southampton; I. Baumvol, Federal University of Rio Grande do Sul; N. Bloembergen, University of Arizona; M. Buttiker, University of Geneva; R. Chau, Intel; T. Ebbesen, Louis Pasteur University; A. Efros, University of Utah; Y. Hirayama, NTT Basic Research Laboratories; H. Iwai, Tokyo Institute of Technology; Ki-Bum Kim, Seoul National University; K. Lian, Motorola; R. Liu, Fudan University; Yu. Lozovik, Institute of Spectroscopy; S. Mao, University of California, Berkeley; K. Matsumoto, Osaka University; P. Mueller, IBM; A. Nitzan, Tel Aviv University; M. Reed, Yale University; O. Sankey, Arizona State University; M. Vazquez, Materials Science Institute of Madrid; S. Williams, Hewlett Packard; and N. Zhitenev, Lucent Technologies.

The abstract deadline is October 1, 2006.

The conference proceedings will be published in Elsevier's *Microelectronics Engineering Journal*; the tutorial lectures will be published in Springer's *Nanostructure Science and Technology* series; and other featured topics will be published in Interscience's *International Journal of Nanotechnology*.

Sponsors of the conference include Arizona State University, Nano and Giga Solutions, Motorola, Elsevier, Springer, and the City of Tempe. The conference is endorsed by the Materials Research Society.

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Gordon Conference on High-Temperature Materials to Be Held in July 2006

www.grc.org/programs/2006/hightemp.htm

The 2006 Gordon Research Conference on High-Temperature Materials, Processes, and Diagnostics will be held July 16–21, 2006, at Colby College in Waterville, Maine. The meeting is chaired by Brian W. Sheldon of Brown University and co-chaired by Beth Opila from the NASA Glenn Research Center.

This conference, held biannually since 1998, brings together scientists and engineers working on both applied and fundamental materials research. The meeting participants are typically interested in materials with a wide range of applications, including solid oxide fuel cells, space applications, energy systems, sensors, nuclear systems, and protective coatings. The 2006 conference focuses on recent developments in basic research (interfacial behavior, computational modeling, electrochemistry, thermochemistry, and kinetics), and also on specific types of materials at the forefront of current research (fuel cells, nanomaterials, sensors, microelectromechanical systems, and ultrahigh-temperature materials). Many recent advances in these areas rely on improved experimental and computational insight into the atomic and mesoscale processes that occur at high temperatures.

The meeting is organized in accordance with Gordon Conference guidelines, with technical sessions in the mornings and evenings. All of the oral presentations are invited, and active discussion of each speaker's work is strongly encouraged. The sessions and speakers are *Solid Oxide Fuel Cells* (J. Kilner, Imperial College; A. Virkar, University of Utah; M. Liu, Georgia Tech, and E. Ivers-Tiffée, University of Karlsruhe); *Interfacial Phenomena* (C.B. Carter, University of Minnesota.; J. Maier, Max-Planck Institut; and I. Szlufarska, University of Wisconsin); *Morphology Evolution and Kinetics* (D. Srolovitz, Princeton University.; Z.L. Wang, Georgia Tech; and J. Hannon, IBM); *Sensors/Small Devices* (H. Tuller, Massachusetts Institute of Technology; and C. Carraro, University of California, Berkeley); *Computational Modeling* (P. Turchi, Lawrence Livermore National Laboratory; S. Sinnott, University of Florida; and A. Chang, University of Wisconsin); *High-Temperature Oxidation* (J. Marschall, SRI; and E. Copland, NASA); and *Bonding, Chemistry, and Kinetics* (R. Falcone, UC–Berkeley; M. Gaune-Escard, Ecole Polytechnique; and C. Campbell, NIST). The closing lecture by Robert Piascik (NASA, Langley) will present results from the Columbia space shuttle accident investigation.

All conference attendees are encouraged to present posters, although it is not required (except for students and postdoctoral candidates who are seeking financial support). Active, informal discussion is also an important feature of the poster sessions.

Primary support for the meeting is provided by the Gordon Research Conference organization, with additional support from Oak Ridge National Laboratory and the National Science Foundation (Ceramics Program, Division of Materials Research). The conference is endorsed by the Materials Research Society.

The total attendance is limited to approximately 130 participants. To ensure a well-balanced meeting, women and underrepresented minorities are strongly encouraged to apply. Graduate students and other young researchers are also strongly encouraged to apply.

Additional information can be obtained at Web site www.grc.org/programs/2006/hightemp.htm.

Fourth International Conference on Materials Science and Engineering to Be Held in May 2006

http://cisgm4.univ-tlemcen.dz

The Fourth International Conference on Materials Science and Engineering (CISGM4), to be held May 2–4, 2006, is organized and hosted by the University of Tlemcen, Algeria (http://univ-tlemcen.dz) in association with the Algerian Materials Research Society (http://www-amrs.univ-sba. dz) and is the fourth in a series of conferences on developments in materials science in developing countries. Over the last decade, there has been dramatic growth within developing countries in research on materials that exhibit unusual properties that may lead to new applications.

The conference comprises six sessions, focusing on electronic and photonic materials, structural materials/ceramics, metals and alloys, nanostructured matter, macromolecules and polymers, theory in structure–property relationships, and a special workshop on recent advances in applied density functional theory.

Each session will feature invited and contributed presentations and will be supplemented by a number of poster presentations. Among the invited speakers are M. Henini from Notthingham University, UK; S.T. Pantelides from Vanderbilt University, USA; and H. Kobayashi from Osaka University, Japan. The conference chairs are G. Merad of the University of Tlemcen and H. Aourag, chair of the Algerian Materials Research Society. The conference is endorsed by the Materials Research Society.

Further details are available on the conference Web site at http://cisgm4.univ-tlemcen.dz.

YUCOMAT 2006 to Be Held in September

www.yu-mrs.org.yu

The Yugoslav Materials Research Society (Yu-MRS) will hold its Eighth Annual Conference September 4–8, 2006, at the Plaza Hotel in Herceg Novi, Serbia and Montenegro (www.hercegnovi.com).

The conference will feature five symposia: Advanced Methods in Synthesis and Processing of Materials, Advanced Materials for High-Technology Application, Nanostructured Materials, Composites, and Biomaterials.

Invited keynote lectures by leaders in the field, oral presentations, and poster sessions are planned. The official conference language is English. The conference program, instructions for manuscript preparation, and information about hotel reservations will be sent to registered participants by June 15.

Abstracts, no longer than 10 lines, and registration forms should be submitted by May 1, 2006.

The proceedings will be published, as were those from the previous conferences, by Trans Tech Publications, Inc. Manuscripts may be submitted from June 15 until the first day of the conference (or date of the presenter's arrival). The papers will be refereed, and those selected will be included in the proceedings volume that will be sent to the publisher by December 15.

The president of the Yugoslav Materials Research Society, at the suggestion of the Awards Committee, will present awards to the authors (preferably members under 35) of the best oral and poster presentation at the conference, and also to the authors of highly rated PhD and MSc theses defended since the last conference. Award benefits include free registration and conference proceedings.

An exhibition of synthesis and characterization equipment will be held during the conference. A traditional cocktail party on Monday evening and excursions on Wednesday (to Dubrovnik, Croatia) and Friday (to Boka Kotorska Bay) will be offered to attendees.

Conference information is available on the official Yu-MRS Web site www.yu-mrs.org.yu or from Aleksandra Stojicic, conference secretary, yumrs@itn.sanu.ac.yu. □

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