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Guest Editor for this issue of *MRS Bulletin* Department of Physics and Astronomy,

Rutgers University, Piscataway, NJ, USA; email podzorov@physics.rutgers.edu. Podzorov is an associate professor at Rutgers

University. He received his MS degree in physics from the Moscow Institute of Physics and Technology in 1995. From 1995–1997, he worked at Lebedev Institute of Physics in Moscow on optical spectroscopy of inorganic semiconductors. In 2002, he received his PhD degree in condensed matter physics from Rutgers

University, where he studied strongly correlated multiferroic oxides. Podzorov's current research interests include charge-carrier transport properties of organic semiconductors; optical properties of highly ordered organic semiconductors (excitons, photoconductivity, and photovoltaic effect); and molecular self-assembly.



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Hu is a professor at the Institute of Chemistry, Chinese Academy of Sciences (ICCAS). He received his PhD degree from ICCAS in 1999, then he worked at Osaka University as a research fellow of the Japan Society for the Promotion of Science (1999–2001), and then at Stuttgart University as a research fellow for the Alexander von Humboldt Foundation (2001–2003). In 2003,

he joined the Basic Research Laboratories, Nippon Telephone and Telegraph, Japan, and then returned to ICCAS. His research interests focus on organic optoelectronics. He has published more than 240 refereed papers. He has received numerous awards, including the CCS-Evonik (Degussa) Chemical Innovation Award (2012) in recognition of his research in organic optoelectronic materials and devices.



Zhenan Bao

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Bao is a professor and a David Filo and Jerry Yang faculty fellow at Stanford University. She received her PhD degree from the University of Chicago. After spending eight years in Bell Labs as a Distinguished Member of Technical Staff, she joined Stanford as an associate professor in 2004. Bao has more than 250 refereed publications and 40 US patents. Her recent awards include Fellow of the American Association for the Advancement

of Science in 2012, the ACS Arthur Cope Scholar Award for 2011, ACS and ACS-PMSE Fellow in 2011, RSC Beilby Medal and Prize in 2009, SPIE Fellow in 2008, and IUPAC Creativity in Applied Polymer Science Prize in 2008.



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Bardeen is a professor in the Department of Chemistry at the University of California, Riverside. He earned his PhD degree in physical chemistry from the University of California, Berkeley, in 1995. He was a postdoctoral fellow at the University of California, San Diego, from 1995 to 1998, after which he moved to the Department of Chemistry at the University of Illinois, Urbana-Champaign, as an assistant professor. In 2005, Bardeen

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DOI: 10.1557/mrs.2012.307



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Brédas is a Regents' Professor of Chemistry and Biochemistry at the Georgia Institute of Technology, where he holds the Vasser-Woolley and Georgia Research Alliance Chair in molecular design. He also is an adjunct professor of chemistry at King Abdulaziz University in Jeddah, Saudi Arabia, and an extraordinary professor at the University of Mons, Belgium. His research focuses on the computational design of novel

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Coropceanu is currently a principal research scientist at the Georgia Institute of Technology. He received his PhD degree in theoretical and mathematical physics from the State University of Moldova in 1985. His research interests revolve around theoretical studies of the electronic and optical properties of organic and inorganic systems, including energy- and electrontransfer phenomena, with an emphasis on charge

transport in organic molecular semiconductors.



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Frisbie is a Distinguished McKnight University Professor at the University of Minnesota, where he has been since 1994. His research focuses on materials for printed electronics, organic semiconductor thin films, and their applications in devices such as transistors and solar cells. Research themes include the synthesis and characterization of novel organic materials.

structure–property relationships in organic electronics, organic device physics, molecular electronics, and the application of scanning probe techniques to electrical characterization. An important recent focus has been the application of electrolytes to electronic gating of organic materials in order to explore charge transport in the high charge density regime.



Gaurav Giri

Department of Chemical Engineering, Stanford University, CA, USA; email ggiri@stanford.edu. Giri has been a graduate student in the Zhenan Bao Research Group in the Department of Chemical Engineering at Stanford University since March 2009. He graduated with a BS degree in chemical engineering at the California Institute of Technology in 2008. His current research focuses on the control of organic semiconductor metastable crystal packing and growth through the use of solution processing methods. Lattice strain introduced through the

use of solution processing techniques is then used to create high-performance electronic devices.



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Gutiérrez Lezama is currently completing his doctoral studies in physics at the University of Geneva, after receiving an MSc degree in nanoscience from Delft University in 2008. Since then, he has been active in the field of organic semiconductors, studying their electronic properties and the physics behind devices. Recently,

he has become active in the study of the electronic properties of different types of materials through the use of ionic liquid gating.



Hui Jiang

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Jiang is currently a postdoctoral research fellow at the Nanyang Technological University. He received his BS degree in metal material engineering from the School of Materials Science and Engineering at Tianjin University in 2003. Then, jointly between Tianjin University and the Institute of Chemistry, Chinese Academy of Sciences, he continued his MSc and PhD degree studies and received his PhD degree

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Christian Kloc



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639798; email Ckloc@ntu.edu.sg. Kloc is a professor in the School of Materials Science and Engineering at Nanyang Technological University (NTU) in Singapore. He joined NTU in 2007. Previously, he worked in the Materials Research Department at Bell Labs. He earned a degree in chemical engineering from the Technical University in Gliwice, Poland. He then joined the Solid State Physics Institute of the Polish Academy of Science in Zabrze in Poland, where

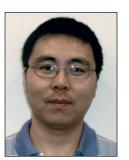
he earned his PhD degree in physics. Kloc was a postdoctoral fellow at the University of Braunschweig in Germany, where he worked on the single-crystal growth of metals by electrocrystallization. His current research focuses on the study of structure-property relations in organic and inorganic functional materials.



Hanying Li

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Bao's group at Stanford University, Li moved to Zhejiang University in December 2011. His current research focuses on bioinspired single-crystal growth and organic-single-crystal-based electronic and optoelectronic devices such as transistors and solar cells.



Yuan Li Georgia Institute of Technology, Atlanta, GA, USA; tel. 404-385-8182;

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Li has been a postdoctoral fellow with the Brédas research group at the Georgia Institute of Technology since 2010. He received his PhD degree in condensed matter physics from Shandong University (Jinan, China) in 2009. He then worked as a faculty member at Southeast University in Nanjing, China, before joining the Brédas research group. Li's research focuses on the theoretical modeling of charge transport and electron-

phonon interactions in organic semiconductors, including organic molecular crystals and conjugated polymers.

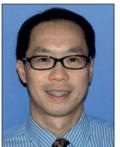


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Morpurgo is a professor at the University of Geneva. He received a PhD degree in physics from the University of Groningen in 1998. After two years as a postdoctoral researcher at Stanford University, he worked at Delft University through the end of 2008 before joining the University of Geneva. Morpurgo is interested

in the study of the electronic properties of new materials by means of transport experiments in nanofabricated devices. Next to organic transistors, he is active on quantum transport in different systems, including two-dimensional electron gases, superconductors, carbon nanotubes, graphene, and topological insulators.



Jeffrey B.-H. Tok

Department of Chemical Engineering, Stanford University, CA, USA; email jbtok@stanford.edu. Tok has been a senior research scientist at Stanford University since 2010. He received his BSc degree from The University of Washington at Seattle (1992) and his PhD degree from The University of Chicago (1996). After a postdoctoral stay at Harvard University, he held positions as an associate professor of chemistry at The City University of New York, York College and Graduate Center; as a principal investigator at Lawrence Livermore National Laboratory; and

as chief bioscientist at Micropoint Biosciences Inc. Tok has more than 40 publications, and has received the Nanotech Briefs 3rd Annual Nano-50 Technology Award (2007) and the American Association for Cancer Research (AACR)-HBCU Faculty Scholar Award in Cancer Research (2002).



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Xie is a PhD degree student in materials science at the University of Minnesota. He received his BS degree in materials science and engineering from Shanghai Jiao Tong University in China in 2008. Xie's research focuses on studying the charge transport in organic single-crystal fieldeffect transistors, particularly at high chargecarrier densities through electrolyte gating. He

also carries out collaborative research work in designing novel organic smallmolecule semiconductors with tunable molecular structure and crystal packing for controlled electronic properties.

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Yi is a postdoctoral research fellow in the group of Jean-Luc Brédas at the Georgia Institute of Technology. He received his BS degree in polymer materials and engineering from the University of Science and Technology of China in 2002 and his PhD degree in physical chemistry from the Institute of Chemistry of the Chinese Academy of Sciences in 2008. His research interests include the theoretical study of charge transport in

organic semiconductors and of organic photovoltaics.



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Zhu is a postdoctoral fellow in the School of Chemistry and Biochemistry of the Georgia Institute of Technology. She received her PhD degree from the Institute of Chemistry of the Chinese Academy of Sciences in 2008. As a PhD degree student, she investigated the structure– property relationships for multi-photon absorption in organic molecules. Her current research interests focus on the theoretical study of the

charge-transport properties of organic semiconductors.



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AWARDS OF THE MATERIALS RESEARCH SOCIETY

Von Hippel Award

Stuart S.P. Parkin, IBM Almaden Research Center The Spin on Electronics!

David Turnbull Lectureship Robert Sinclair, Stanford University and Stanford Nanocharacterization Laboratory In Situ High-Resolution Transmission Electron Microscopy of Material Reactions

MRS Medal

Jennifer A. Lewis, University of Illinois at Urbana-Champaign Printing Functional Materials

MRS Medal

Miquel B. Salmeron, University of California, Berkeley and Lawrence Berkeley National Laboratory Physics and Chemistry of Material Surfaces Under Ambient Conditions of Gases and Liquids—What's New?

Materials Theory Award

John P. Perdew, Tulane University Climbing the Ladder of Density Functional Approximations

FEATURED EVENTS

Fred Kavli Distinguished Lectureship in Nanoscience Sir John Pendry, Imperial College, London Emphasizing the Negative

Graphene Forum

Plenary Session

2011 Nobel Prize Winner Danny Shechtman, Technion, Israel and Iowa State University *Quasicrystals—Discovery, Structure, Properties and Uses*

Sustainability Forum

TUTORIAL SESSIONS

Tutorial VV Neutron and X-rays—Sources, Instrumentation and Scattering Klaus-Dieter Liss, Australian Nuclear Science and Technology Organization Rozaliya Barabash, Oak Ridge National Laboratory

Tutorial AAA Developing Successful Business Plans for Science and Technology Ventures Padmakumar Nair, University of Texas at Dallas Orlando Auciello, University of Texas at Dallas

TECHNICAL SESSIONS

Symposium G Materials as Tools for Sustainability

Symposium L Biomimetic Nanoscale Platforms, Particles, and Scaffolds for Biomedical Applications

Symposium W Carbon Nanomaterials

Symposium ZZ Communicating Social Relevancy in Materials Science and Engineering Education



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