

## Guest Editorial

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### Special Issue on Images in Plasma Science

**V**ISUALIZATION of computer simulations and experimental data is becoming an increasingly more important aspect of research in plasma science. It is now common for computer simulations to be two or three dimensions and time dependent. Experimental diagnostics using probes, laser-induced fluorescence, or charge-coupled device (CCD) detectors produce similar two- or three-dimensional images. Even direct photography is a multidimensional data acquisition technique. The proper visualization of these data transmits vast amounts of information in a single or sequence of images. In addition to the scientific benefits of proper visualization, the images which result are often works of art in their own right.

In acknowledgment of the increasing importance of visualization, this volume of the IEEE TRANSACTIONS ON PLASMA SCIENCE includes a special issue section entitled "Images in Plasma Science." The intent of this special issue is to present unique multidimensional experimentally or computationally generated images of plasma phenomena, which both provide insight to the physics of the process and are aesthetically pleasing. This special issue contains many examples of such images from a broad spectrum of plasma science including: tokamaks, lasers, laser-produced plasmas, material processing reactors, beams, cathode and plasma-surface interactions, particles in plasmas, and basic plasma phenomena. Authors were

requested to limit their contributions to a maximum of two pages. The authors should be complimented on the scientific and artistic content of their contributions, as well as their succinct prose which met the stringent page limit.

It is our hope that the images presented in this special issue will also help to educate the general public in both the science and artistry of plasmas, and in doing so promote the field of plasma science to our mutual benefit.

The Guest Editors would like to thank K. Voyles for her expert assistance in managing the correspondence and reviews, and for the processing of manuscripts.

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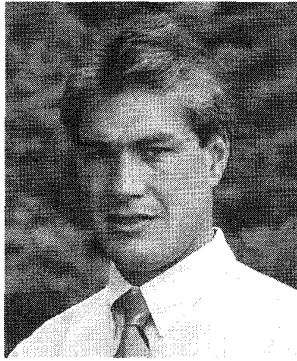
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He served on the Technical Staffs of Sandia National Laboratory, Lawrence Livermore National Laboratory, and Spectra Technology prior to joining the Department of Electrical and Computer Engineering at the University of Illinois at Urbana-Champaign in 1986, where he is now a Professor. He served as Assistant Dean of Academic Programs in the College of Engineering during 1994-1995. He has published more than 115 papers and presented more than 250 conference papers and symposia on topics related to plasma processing, gas and solid-state lasers, pulse power plasmas, chemical lasers, and laser spectroscopy.

Dr. Kushner is a member of Phi Beta Kappa, Tau Beta Pi, Eta Kappa Nu, the Materials Research Society, and the American Vacuum Society. He is also a fellow of the American Physical Society and the Optical Society of America. He received the 1995 Semiconductor Research Corporation Technical Excellence Award. He has served on the Executive Committees of the Gaseous Electronics Conference, the IEEE Technical Committee on Plasma Science and Applications, the American Vacuum Society Plasma Science and Technology Division, and the American Vacuum Society Manufacturing Science and Technology Group. He is on the editorial board of *Plasma Sources Science and Technology* and serves as an Associate Editor of the IEEE TRANSACTIONS ON PLASMA SCIENCE.



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Dr. Ruzic is a member of the American Physical Society, the American Nuclear Society, and the American Vacuum Society. He served as President of the Plasma Science and Technology Division of the American Vacuum Society from 1993 to 1994. He has received numerous college-wide teaching awards, including an award for involving undergraduates in research and an award for fostering student-faculty relations.