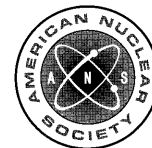


# COMMENTS



We have been working with international tokamak groups to contribute to series of special issues to recognize and highlight the science and technology contributions to a next-step burning plasma device (ITER). Many groups around the world have been participating, and when completed, these series will have a long-lasting value to the fusion community, from desktops to classrooms. With the recent announcement of the decision to construct ITER at Cadarache, France, this series of special issues is more timely than ever and will serve to help attract and educate a new generation of scientists and engineers who will be the ones to design, build, run, and scientifically exploit ITER—reaping the benefits of all that has been achieved in the international fusion program.

In this issue, we are pleased to bring you the contributions from the DIII-D tokamak, located at General Atomics, San Diego, California, to this new ITER era. We are deeply indebted to the DIII-D Team and to the contributing authors for their heroic efforts in preparing this special issue for the readers of *Fusion Science and Technology (FS&T)*. Our thanks are due Dr. Ali Mahdavi and Dr. James Luxon for their help with the coordination of the issue and for serving as the guest editors. The 35 papers included in this issue survived the rigors of the peer review process, courtesy of the 95 international reviewers. These papers are either original contributions or informative reviews of the physics and technology results obtained on the DIII-D tokamak. We extend our utmost gratitude and appreciation to all of the reviewers for serving beyond their parochial boundaries, to the authors for their hard work, and to the guest editors for their coordination and help. An undertaking of this magnitude does not just happen.

The DIII-D issue is the fifth in the *FS&T* special series of tokamak fusion experiments. The first four in the series are as follows:

- “Special Issue on JT-60,” *FS&T*, Vol. 42, No. 2/3, September/November 2002;
- “Special Issue on ASDEX-Upgrade,” *FS&T*, Vol. 44, No. 3, November 2003;
- “Special Issue on Frascati Tokamak Upgrade (FTU),” *FS&T*, Vol. 45, No. 3, May 2004;
- “Special Issue on TEXTOR,” *FS&T*, Vol. 47, No. 2, February 2005.

We look forward to bringing you future special issues in this series from around the world.

The DIII-D tokamak (a major upgrade of the Doublet III device) has been in operation since 1986. DIII-D is a large, noncircular cross-section tokamak with a divertor. Active upgrades to the DIII-D facility, the heating and current drive (neutral beam and radio-frequency) systems, the plasma control system, and accompanying diagnostics have kept the DIII-D program in the forefront of world fusion research. Key research areas include understanding the role of plasma cross section in plasma stability and performance, coupling of the plasma to a divertor region for control of plasma heat and particle exhaust, and developing enhanced-performance/advanced-tokamak scenarios needed for burning plasmas. The DIII-D Team, with its many national and international members, collaborates on joint experiments to resolve a number of important issues in these areas related to ITER. The breadth and depth of the DIII-D research program and its contributions to the ITER burning plasma experiment are clearly evident in the papers contained in this issue. We wish the Team members all continued success and look forward to their future contributions.

This special issue is dedicated to the outstanding team of scientists, engineers, technicians, administrators, and support staff that contributed to the success of the DIII-D program.

*Nermin A. Uekan*