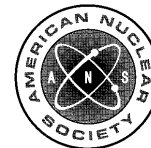


# COMMENTS



In this issue, we are pleased to bring you the contributions from the JFT-2M tokamak. 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 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.

We are deeply indebted to the JFT-2M Team and to the contributing authors for their efforts in preparing this special issue for the readers of *Fusion Science and Technology (FS&T)*. Our thanks are due Dr. Yoshinori Kusama for his help with the coordination of the issue and for serving as the guest editor. The 10 papers included in this issue survived the rigors of the peer review process, courtesy of the 25 international reviewers. These papers are either original contributions or informative reviews of the physics and technology results obtained on the JFT-2M tokamak in Tokai, Japan. We extend our utmost gratitude and appreciation to all of the reviewers for their guidance, to the authors for their hard work, and to the guest editor for his coordination and interface with the authors.

The JFT-2M issue is the sixth in the *FS&T* special issue series of tokamak fusion experiments. The first five in the series are as follows:

- “Special Issue on JT-60,” *FS&T*, Vol. 42, Nos. 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;
- “Special Issue on DIII-D Tokamak,” *FS&T*, Vol. 48, No. 2, October 2005.

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

The JFT-2M tokamak (an upgrade of the JFT-2 device) was in operation during the period from April 1983 to March 2004. JFT-2M is a medium-sized, noncircular cross-section tokamak with a divertor. During the 21 years of operation, the JFT-2M carried out a number of innovative research techniques and technologies that were found to be important for next-generation tokamaks. Some of this research included Advanced Material Tokamak EXperiments (AMTEX) for the development of reactor material as well as toroidal field ripple reduction, control technologies of magnetic fields for producing noncircular cross section, confinement and electric field studies for H-mode improvements, compact toroid injection for plasma fueling, radio-frequency current drive and heating for long-pulse operation and profile control, impurity reduction by closed divertor, and control technologies for divertor and boundary plasmas. Also, the DC generator operating the device was the largest in the world, which was registered in the Guinness Book of Records in 1997/1998. The JFT-2M Team, along with many of its national and international members, collaborated on joint experiments to resolve a number of important issues in these areas related to large tokamaks and ITER. The breadth and depth of the JFT-2M research program is clearly evident in the papers contained in this issue. Many of the JFT-2M members are now working on JT-60 and other experiments. We wish them 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 JFT-2M program.

*Nermin A. Uekan*