

# Fusion Science and Technology

CONTENTS / JULY 2006—VOL. 50, NO. 1

## TECHNICAL PAPERS

- 1** High-Power Tests of a Remote-Steering Antenna at 140 GHz / *B. Plaum, G. Gantenbein, W. Kasperek, K. Schwörer, M. Grünert, H. Braune, V. Erckmann, F. Hollmann, L. Jonitz, H. Laqua, G. Michel, F. Noke, F. Purps, A. Bruschi, S. Cirant, F. Gandini, A. G. A. Verhoeven, ECRH Groups*
- 15** Beta-Layering in Foam-Lined Surrogate IFE Targets / *J. K. Hoffer, J. D. Sheliak, D. A. Geller, D. Schroen, P. S. Ebey*
- 33** Detritiation of Plasma-Facing Carbon Materials in Fusion Devices: The Role of Atomic Oxygen from a Quantum Molecular Dynamics Viewpoint / *A. Jelea, F. Marinelli, Y. Ferro, A. Allouche, C. Brosset*
- 43** The Depths of Hydrogen and Helium Bubbles in Tungsten: A Comparison / *K. O. E. Henriksson, K. Nordlund, A. Krasheninnikov, J. Keinonen*
- 58** Hydrogen Isotopic Effects on the Erosion of Carbon / *A. A. Haasz, J. W. Davis*
- 68** Integrated Simulation Code for Burning Plasma Analysis / *T. Ozeki, N. Aiba, N. Hayashi, T. Takizuka, M. Sugihara, N. Oyama*
- 76** Burn Control Study Using Burning Plasma Simulation Experiments in JT-60U / *H. Takenaga, Y. Miura, H. Kubo, Y. Sakamoto, H. Hiratsuka, H. Ichige, I. Yonekawa, Y. Kawamata, S. Tsujii-lio, R. Sakamoto, S. Kobayashi*
- 84** Advanced Fueling System for Use as a Burn Control Tool in a Burning Plasma Device / *Roger Raman*
- 89** Transmutation and Phase Stability of Tungsten Armor in Fusion Power Plants / *G. A. Cottrell, R. Pampin, N. P. Taylor*
- 99** Rates of Methane Decomposition and Hydrogen Permeation in Catalytic-Permeable Ni Tube Reactor / *Satoshi Fukada, Shigeki Ono, Shigenori Suemori*
- 107** Magnetohydrodynamic and Thermal Issues of the SiC<sub>f</sub>/SiC Flow Channel Insert / *S. Smolentsev, N. B. Morley, M. Abdou*
- 120** Thermodynamic Properties of High-Temperature Weakly Nonideal Flinabe (LiF-NaF-BeF<sub>2</sub>) Gas / *Mofreh R. Zaghoul*