

Fusion Science and Technology

CONTENTS / FEBRUARY 2012—VOL. 61, NO. 2

Selected papers from
**FIRST JOINT ITER-IAEA TECHNICAL MEETING
ON ANALYSIS OF ITER MATERIALS
AND TECHNOLOGIES**

Principality of Monaco, November 23–25, 2010

iii Preface / *Richard Kamendje, Bastiaan J. Braams, David J. Campbell*

TECHNICAL PAPERS

- 107** Investigations of Radiation Damage Effects on ITER Structural and Plasma-Facing Materials / *A. I. Ryazanov, V. S. Koidan, B. I. Khripunov, S. T. Latushkin, V. B. Petrov, L. S. Danelyan, E. V. Semenov, V. N. Unezhev*
- 118** A Reliable Technology to Manufacture the ITER Inner Vertical Target / *Eliseo Visca, A. Pizzuto, B. Riccardi, S. Roccella, G. P. Sanguinetti*
- 124** A Neutronics Shielding Mock-Up Experiment for Reduction of Uncertainty on the Prediction of the ITER-TFC Nuclear Heating / *M. Angelone, P. Batistoni, F. Moro, M. Pillon, R. Villari, M. Loughlin*
- 129** Material and Power-Handling Properties of Tungsten PFCs After Steady-State Melting and Additional Transient High-Heat-Flux Exposure / *J. W. Coenen, B. Bazylev, S. Brezinsek, V. Philipps, T. Hirai, A. Kreter, J. Linke, G. Pintsuk, G. Sergienko, A. Pospieszczyk, T. Tanabe, Y. Ueda, U. Samm, The TEXTOR Team*
- 136** Annealing Behavior of RAFM ODS-Eurofer Steel / *H. R. Z. Sandim, R. A. Renzetti, A. F. Padilha, A. Möslang, R. Lindau, D. Raabe*
- 141** The Development of Material and Fabrication Technologies for ITER Magnet Supports / *P. Y. Li, C. J. Pan, B. L. Hou, S. L. Han, Z. C. Sun, F. Savary, Y. K. Fu, R. Gallix, N. Mitchell*
- 147** Application of Rapidly Quenched Ribbon-Type Filler Metals for Brazing of the High-Heat-Flux Elements of ITER / *B. A. Kalin, A. N. Suchkov, V. T. Fedotov, O. N. Sevryukov, A. A. Ivannikov, A. A. Polyansky, I. V. Mazul, A. N. Makhankov, A. A. Gervash, P. S. Dzhumaev, V. L. Yakushin, V. I. Polsky*
- 154** Fabrication Preparation of ITER Vacuum Vessel—Material Considerations, Regulatory Requirements, and Fabrication Plans / *K. Ioki, C. H. Choi, E. Daly, S. Dani, J. Davis, B. Giraud, C. Hamlyn-Harris, G. Johnson, L. Jones, C. Jun, B. C. Kim, E. Kuzmin, R. Le Barbier, J-M. Martinez, H. Pathak, J. Preble, J. Reich, J. W. Sa, A. Terasawa, Yu. Utin, X. Wang, S. Wu*
- 159** Beryllium Pebbles Preparation and Modeling of Rotating Electrode Process / *Dakshinamoorthy Sathiyamoorthy, T. Mohanty, K. Srinivas, D. Selvaraj, D. D. Thorat*

(Continued)

CONTENTS / FEBRUARY 2012—VOL. 61, NO. 2

(Continued)

- 167** Analyses and Preliminary Results of an Updated ITER Radioactive Waste Assessment / *S. Zheng, R. Pampin, S. Lilley, B. C. Na, M. J. Loughlin, N. P. Taylor, V. Barabash*

TECHNICAL PAPERS BY MONACO ITER POSTDOCTORAL FELLOWS

- 172** Feasibility Study of Lost-Alpha-Particle Measurements by Probe Technique in ITER / *E. A. Veshchev, L. Bertalot, S. Putvinski, M. Garcia-Munoz, S. W. Lisgo, C. S. Pitcher, R. A. Pitts, V. S. Ushintsev, M. Walsh*
- 185** Plasma-Wall-Interaction Diagnostics in ITER: Dust, Erosion, and Tritium Retention / *Junghee Kim, P. Andrew, R. Reichle*