

transactions of **Fusion** technology

CONTENTS / MARCH 1995—VOL. 27, NO. 2T

**Proceedings of the
INTERNATIONAL WORKSHOP ON PHYSICS AND
TECHNOLOGY OF TRITIUM FOR FUSION REACTORS
Varenna, Italy
September 6–14, 1993**

- iii Comments / *George Miley*
- v Guest Editors' Preface / *Giovanni Bonizzoni and Elio Sindoni*
- 1 Fusion Reactor Fuel Cycle Design Parameters and R & D Priorities / *David Murdoch*
- 8 Tritium Purification via Zirconium-Manganese-Iron Alloy Getter St 909 In Flow Processes / *J. D. Baker, D. H. Meikrantz, R. J. Pawelko, R. A. Anderl, D. G. Tuggle*
- 14 Tritium Process Applications Using SAES Getters for Purification and Collection from Inert Gas Streams / *D. H. Meikrantz, J. D. Baker, G. L. Bourne, R. J. Pawelko, R. A. Anderl, D. G. Tuggle, H. R. Maltrud*
- 19 Computer Aided Design of Operational Units for Tritium Recovery from $\text{Li}_{17}\text{Pb}_{83}$ Blanket of a DEMO Fusion Reactor / *C. Malara, A. Viola*
- 25 Tritium Recovery from a Solid Breeder DEMO Blanket / *H. Albrecht*
- 30 Tritium-Material Interaction in First Walls and Plasma Facing Components of Fusion Reactors / *G. Gervasini, F. Reiter*
- 41 Tritium Retention in Fusion Reactor Plasma Facing Components / *R. A. Langley*
- 48 A Review of General Tritium Accountancy Techniques / *G. Vassallo, U. Engelmann*
- 56 Conversion of Tritium Gas to Tritiated Water in Air / *Hiroshi Noguchi*
- 62 Zirconium Based Alloy Reactor Beds for Tritiated Water Handling / *N. Venkataramani, F. Ghezzi, G. Bonizzoni*
- 69 A New Zr-Based Alloy for Tritium Recovery from Tritiated Water / *C. Boffito, A. Conte, G. Gasparini*

(Continued)

CONTENTS / MARCH 1995–VOL. 27, NO. 2T

(Continued)

- 75 A Reactor-Permeator for Reduction of Tritium Oxide on Iron / *G. Modica, R. A. H. Edwards*
- 79 Tritiated Water Processing for Fusion Reactors / *S. K. Sood, K. M. Kalyanam*
- 85 Developments in Tritium Storage and Transportation at the Savannah River Site / *L. K. Heung*
- 91 Evaluation of TiCrVFe Alloy for Tritium Separation and Storage / *Yoichi Sakuma, Toshiki Kabutomori, Haruo Obayashi, Yuichi Wakisaka, Keizo Ohnishi*
- 95 Hydrogen Isotope Separation Experience at the Savannah River Site / *Myung W. Lee*
- 98 A Semi-Implicit Model for Hydrogen Isotope Separation via Cryo-Distillation / *V. Violante, S. Tosti*
- 104 Lessons Learned During Startup of the Replacement Tritium Facility at the Savannah River Site / *A. S. Horen, T. Motyka, M. J. Montini, R. F. Hashinger*
- 110 Waste Management / *H. Dworschak, F. Mannone, P. Rocco*

DEPARTMENT

- 116 Volume 27, Number 2T Indexes