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Preface

The Seventh International Workshop on Spallation Materials Technology (IWSMT-7) was held on May 29 to June 3, 2005, in Thun, Switzerland. The meeting was organized by the Paul Scherrer Institut (Switzerland) in cooperation with High Energy Accelerator Research Organization (Japan), Japan Atomic Energy Agency, Los Alamos National Laboratory (USA) and Oak Ridge National Laboratory (USA).

At this meeting, 52 presentations reported the progress and achievements in new and existing spallation neutron sources and accelerator-driven-system (ADS) projects; demonstrated the latest results of materials related studies on different topics such as effects of radiation damage and transmutation products (especially helium and hydrogen) in structural materials, pressure wave induced cavitation erosion effects in liquid mercury targets and compatibility of liquid lead–bismuth eutectic with structural materials in the representative conditions of ADS liquid metal targets. The latest work was also presented in the important and closely related areas of particle transport computations and target and moderator engineering. The presentations were published in CD format and distributed to the participants. The full papers of most of the presentations are contained in the present volume.

This is the seventh meeting of the series started in April 1996 in Oak Ridge, Tennessee, USA [1]. Since the first meeting the progress of spallation target development and related materials studies has been regularly reported in the proceedings of the IWSMT series [2–6]. As the dominant meeting in the spallation materials technology field, the IWSMT meetings have experienced continued worldwide growth in participation and in scientific and technical contributions.

The efforts of the local organizers of the Paul Scherrer Institut towards the success of the meeting are highly appreciated. The additional financial support of Los Alamos National Laboratory and Oak Ridge National Laboratory is greatly acknowledged. Furthermore, the organizers are deeply grateful for the contribution of our colleagues toward realizing the meeting and publishing these proceedings.

References

- L.K. Mansur, H. Ullmaier (Eds.), Proceedings of the International Workshop on Spallation Materials Technology, Oak Ridge, Tennessee, USA, April 23–25, 1996, Oak Ridge National Laboratory Report, CONF-9604151, 1996.
- [2] F. Carsughi, L.K. Mansur, W.F. Sommer, H. Ullmaier (Eds.), Proceedings of the Second International Workshop on Spallation Materials Technology, Ancona, Italy, September 19–22, 1997, Forschungszentrum Jülich Report, Jül-3450.
- [3] W.F. Sommer, H. Ullmaier, L.K. Mansur (Eds.), Proceedings of the Third International Workshop on Spallation Materials Technology, Santa Fe, New Mexico, April 29–May 4, 1999, Los Alamos National Laboratory Report, LA-UR-00-3892.
- [4] Y. Dai, L.K. Mansur, G.S. Bauer, H. Ullmaier, S.A. Maloy (Eds.), Proceedings of the Fourth International Workshop on Spallation Materials Technology, Schruns, Austria, October 8–13, 2000, J. Nucl. Mater. 296 (2001).
- [5] L.K. Mansur, G.S. Bauer, Y. Dai, J.D. Hunn, S.A. Maloy, H. Ullmaier (Eds.), Proceedings of the Fifth International Workshop on Spallation Materials Technology, Charleston, South Carolina, USA, May 19–24, 2002, J. Nucl. Mater. 318 (2003).
- [6] K. Kikuchi, M. Kawai, L.K. Mansur, G.S. Bauer, Y. Dai, S.A. Maloy (Eds.), Proceedings of the Sixth International Workshop on Spallation Materials Technology, Hayama, Kanagawa, Japan, November 30–December 5, 2003, J. Nucl. Mater. 343 (2005).

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