

Preface

Two early workshops are thought of as the beginning of the Spallation Materials Workshops. One entitled Materials for Spallation Sources [1] was held at Los Alamos National Laboratory, February 6–10, 1995. The other, entitled International Workshop on the Technology and Thermal Hydraulics of Heavy Liquid Metals, Schruns, Austria, March 1996 examined liquid metal candidates and related materials technology [2]. Following these initial meetings, the series of International Workshops on Spallation Materials Technology began in April 1996 in Oak Ridge, Tennessee, USA. Proceedings containing summaries and presentation materials of the speakers were published [3]. Subsequent workshops of the series were held in Ancona, Italy, September 1997 and Santa Fe, New Mexico, USA, April 1999. The respective proceedings of these meetings [4,5], also contained summaries and presentation materials of the speakers. For the 4th workshop in the series, held in Schruns, Austria, the proceedings were published as full papers because of the rapid progress of the work and the burgeoning wealth of results and analyses [6]. The following workshops (5th–7th) continued this same tradition and were held in Charleston, SC, USA May 19–24, 2002; Hayama, Kanagawa, Japan, November 30–December 5, 2003; and Thun, Switzerland, May 29–June 3, 2005. Full papers are available in the corresponding special issues of the Journal of Nuclear Materials [7–9].

As in earlier meetings of this series, IWSMT-8 was held to ensure that maximum scientific and technical information is obtained for the concepts and engineering designs of major high power spallation neutron sources throughout the world. This workshop provides an ideal forum for presenting the latest results from materials related research. These topics included design and engineering of new spallation sources and test stations, materials relevant experience in operating spallation neutron sources, cavitation erosion (pitting) and pressure waves in liquid metal targets, radiation effects in target structural materials and in accelerator elements, compatibility of materials with their environments, particle transport and target/moderator engineering in the field of high intensity spallation neutron sources, corrosion effects under radiation in nuclear transmutation materials and modeling of radiation and corrosion effects in structural materials and in spallation targets. The discussion periods focused on open questions encountered in developing high power spallation targets. The objectives of the meeting were reached by the 70 presentations on different topics held October 16–20, 2006 in the beautiful city of Taos, NM, USA. Most of the presentations are published as full papers in these proceedings.

References

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