



The editorial staff of *Fusion Technology* (FT) takes great pleasure in the publication of papers from the Seventh Topical Meeting on the Technology of Fusion Energy. This continues a tradition that was initiated with the special issue in 1983 containing papers from the Fifth Topical in Knoxville, Tennessee, and followed in 1985 by publication of papers from the Sixth Topical in San Francisco, California.

I would stress that, as in the preceding topicals, the papers included here are only those that have undergone a review process organized by the publication chairman, who for the Seventh

Topical, was Richard Olson of the Sandia National Laboratories in Albuquerque, New Mexico. Rick and his committee did an excellent job in carrying out this process despite severe time constraints forced by the tight publication schedule. Most of the reviews were performed at the meeting with considerable help from the session chairmen, who identified and worked with appropriate reviewers from among the attendees. Some reviews were done by mail as required. A complete listing of the reviewers is contained in the back of this issue. I want to profusely thank everyone involved in this process, which has enabled us to provide a high-quality publication. Further, the knowledge that papers were to be reviewed, in my opinion, indirectly helped ensure high-quality oral presentations at the meeting.

This meeting occurred at a key time in the development of fusion power as several large experiments are approaching break-even conditions. Thus a group of papers were concerned with the important new direction in the U.S. program of designing a Compact Ignition Tokamak (CIT) to study a burning plasma. Other developments included the disclosure of varied improvements in blanket design, both as the result of the earlier reference blanket design study, and as the outgrowth of the recent reactor studies such as MINIMARS and TURBOSTAR. Another outgrowth from recent reactor studies is an increasing realization of the importance of the cost of balance of plant. Indeed, this point caused a revival of interest in improved energy conversion techniques at the meeting. Steady progress in tritium technology and various other aspects of nuclear technology was also evident. Encouraging results from recent inertial confinement fusion experiments have also injected new enthusiasm into that area. Thus the collection of papers on the most recent design study for heavy-ion beam fusion (HIBF) was quite timely. (Authors in the HIBF session elected to prepare longer papers, which will be collected and published together in a later issue of *FT*. Thus, only summaries from these papers appear here.)

An appropriate but sad aspect of the meeting was the eulogy presented for Dr. Noel Amherd, who died in December 1985. Noel was a personal friend whom I greatly admired as a person and as a leader in fusion development. His untimely death was a real loss to us all. A statement in his memory prepared for the meeting program is reproduced on p. xv.

In conclusion, I wish to thank the conference committee for their help and cooperation in preparation of this issue. Carl Henning of Lawrence Livermore National Laboratory (LLNL) did a superb job as chairman of this outstanding conference. He was ably assisted by Donna Schreiber of LLNL. She also coordinated the publication desk, which was ably manned by Linda Cruze, Evelyn Heald, and Elaine Price. The yeomanship work of Rick Olson; his assistants, Judy Case and Elaine Torres; and the technical program committee was noted earlier and a listing of the full program committee is given on p. xviii. Stephen Dean, chairman of the ANS Fusion Energy Division and Martin Adamson, chairman of the Materials Science Technology Division, along with members of their respective divisions, provided strong support for the meeting and publication. Last but not least, thanks are due to generous sponsors of the meeting. They are the U.S. Department of Energy, Office of Fusion Energy; LLNL/University of California; Fusion Power Associates; General Dynamics/Convair; TRW, Inc.; and Grumman Aerospace Corporation.

*George Miley*