PREFACE

INTERNATIONAL WORKSHOP ON PHYSICS AND TECHNOLOGY OF TRITIUM FOR FUSION REACTORS

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Tritium technology, developed at first for defense programs only, is now open for discussion to the large community of scientists involved in fusion reactor research. We believe that a free exchange of information is crucial for the characterization and the solution of the many still unsolved problems in this field of research.

The International Workshop on Physics and Technology of Tritium for Fusion Reactors, held in Varenna, Italy, from September 6–14, 1993, was a major success if judged by the large attendance and by the scientific and technical level of both the invited and the contributed papers. The workshop gathered over 40 scientists who came from Austria, Canada, Germany, Italy, Japan, and the United States.

During the 14 sessions of the workshop, the latest progress in tritium technology related to fusion reactors was presented and deeply discussed. Particular emphasis was placed on environmental, safety, and health concerns associated with the need to develop well-tested and technically valid fuel cycles. Thanks to the various technology programs undertaken in many laboratories, a vast amount of work on tritium removal from blankets, tritium-material interaction, waste management, tritium purification, accountancy, monitoring, and storage is in progress. At the workshop, special attention was given to tritium problems in the International Thermonuclear Experimental Reactor (ITER), to the analysis of the technologies currently available, and to future needs.

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