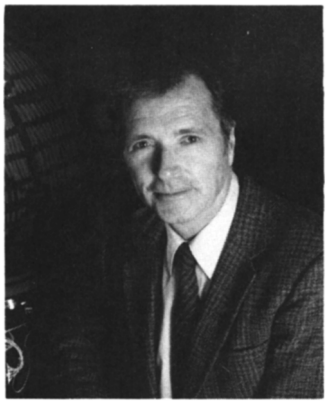
COMMENTS



Fusion Technology (*FT*) is especially pleased to continue the tradition of publishing a collection of papers based on presentations at the International Atomic Energy Agency (IAEA) Specialist Workshop series on alpha-particle physics. The papers in this special issue are from the third workshop in this series, held in Trieste, Italy, May 10–15, 1993. *Fusion Technology* has a long-standing tradition of publication of papers on alpha-particle physics. Papers from prior workshops in this series were published in *FT*, Vol. 18 (1990) and Vol. 22 (1992). This year, we are especially indebted to Dr. Marcel Haegi, Association Euratom-ENEA, who served as workshop chair and who is also the guest editor for this issue. His enthusiasm and diligence in working with authors to collect the papers is greatly appreciated. In addition, the cooperation and the effort put forth by the authors made it feasible to bring together this group of high-quality, leading-edge papers. The help from reviewers to provide an expeditious turnaround to meet a tight production schedule is also recognized.

It is interesting to note the changes in emphasis that are occurring in the field of alpha-particle physics. In earlier workshops, papers tended to explore possible alpha-particle–induced instabilities and rather idealized cases of high-energy alpha-particle transport. In the Trieste workshop, specific instabilities, such as the toroidal Alfvén eigenmode, were the primary focus for instability studies. Several unique topics, such as fast alpha-particle transport effects on the bootstrap current and other plasma phenomena, were introduced at the meeting. In addition, an increased number of papers on various alpha-particle diagnostics, on thermal alpha-particle transport, on alpha-particle effects in burning plasmas, and on burn control are evident. While some comparisons with experiments, e.g., energy measurements of ripple-trapped fast ions, were presented, the lack of experimental data, due to the lack of a deuterium-tritium (D-T) burning plasma, continues to hamper such comparisons. However, the D-T experiments expected soon in both the Tokamak Fusion Test Reactor (TFTR) and the Joint European Torus (JET) should lend growing excitement to the field of alpha-particle physics. Indeed, the next IAEA specialist workshop is tentatively scheduled to be held at Princeton Plasma Physics Laboratory shortly after the D-T experiments, initiated in TFTR in December 1993. The D-T experiments in JET are expected to begin in late 1994. The D-T experiments in these two devices will usher in a whole new era of alpha-particle physics studies.

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