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## Preface

The development of Accelerator Driven Systems is one of the most attractive possibilities for reduction of the inventory of long-lived radiotoxic nuclear waste produced by nuclear power plants. At present, different concepts are under investigation and the use of heavy liquid metal is envisaged both for the spallation target and as a primary coolant. Within this fascinating challenge, the materials issues are among those of the highest priority and one of the most important events for the materials community is the International Workshop on Materials for Hybrid Reactors and Related Technologies.

These proceedings contain the papers presented at the second Workshop, held at the Brasimone ENEA Research Centre in Italy from April 18–20, 2001, following the first held in Karlsruhe, Germany in September 1999. The most important goals of these workshops were to promote better communication between the researchers, and to evaluate the latest available results. The second Workshop succeeded in this task, with more than sixty scientists from all over the world participating in the meeting and twelve presentations made, covering the following topics: strategy of ADS development, radiation effects in structural materials, corrosion of materials in molten Pb–Bi, impurity measurement and control, atomistic simulation of liquid lead/lead–bismuth and liquid metal embrittlement of steels. All papers presented the latest progress on those issues relating to developments in the field of heavy liquid metal technology for Accelerator Driven Systems (ADS).

We would like to thank all participants for their interest and contributions to the Workshop. We gratefully acknowledge the efforts of those colleagues who reviewed the manuscripts and the support of ENEA for hosting the Workshop.

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