

## PREFACE

The present issue of Hyperfine Interactions records the proceedings of the International Symposium on Lasers in Nuclear Physics that was held on September 9–10, 1991 at RIKEN, the oldest institute (founded in 1917) for physical and chemical research in Japan. This conference was organized as a satellite symposium of the 12th International Conference on Electromagnetic Isotope Separators and Techniques Related to Their Applications (EMIS-12) held in Sendai.

The first international symposium on Lasers in Nuclear Physics was held in Oak Ridge, Tennessee, in 1982. We received enthusiastic support from Dr. H.K. Carter at Oak Ridge, who organized the symposium, and Professor D.E. Murnick at Rutgers, who then gave a summary talk. Unfortunately, they were not available this time, but their letters were greatly encouraging to us.

The present symposium was organized to provide a forum for the communication of the results and ideas accumulated in the last decade in the field of lasers in nuclear physics and related disciplines. Special attention was paid to theoretical aspects of experimental observations. For the detection of rare nuclear events, current experimental techniques were presented which were not at all available ten years ago.

Participants registered at the conference totalled 112: forty-one from thirteen different countries abroad and seventy-one Japanese scientists with backgrounds in nuclear physics, nuclear chemistry, atomic physics, quantum electronics, and accelerator physics. The conference was small but very interdisciplinary. Of forty contributions, fourteen invited papers and thirteen orally presented papers are reproduced in this issue. Because of limited time, we were not able to provide all contributors with time for oral presentation; instead we had an evening poster session. This was most successful, and we also reproduce the abstracts of these poster presentations. We thank Drs. W.H. Wimmers, Science Publisher, who generously accepted our idea to include these abstracts.

The editors believe that it is worth recording the weather conditions at the time of the conference. The largest typhoon experienced in the Tokyo area during the past fifty years was on its way at the start of the conference. Everyone's concern at this point was the arrival of the typhoon, and the weather was already terrible. However, we were fortunate enough to escape the worst of a perhaps most exciting but miserable experience and, thank goodness, everything proceeded as scheduled. Some people did, however, experience tons of rain after the conference.

## *Preface*

It is a pleasure to include a message from Professor K. Shimoda, who gave a welcome speech at the conference dinner. He has been enthusiastically supporting "Lasers in Nuclear Physics" from the very beginning of this interdisciplinary field in Japan.

We would like to acknowledge the speakers, the international advisory committee, the organizing committee, the sponsors, and the participants, all of whom contributed to the success of this second International Symposium on Lasers in Nuclear Physics. In particular, we would like to thank Professor M. Fujioka, Chairman of the EMIS-12, for his strong support of the symposium; without his support we might not have been able to make it so successful. We are also indebted to the people who refereed the papers; refereeing is painstaking work indeed. We wish to express our sincere thanks for the help provided to us. Special thanks go to Drs. W.H. Wimmers, Science Publisher, for his efficient cooperation in the rapid publication of this issue.

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