Preface

The eleventh XAFS conference (XAFS XI) was held in Ako, Japan, on 26–31 July 2000. The conference was devoted to theories, techniques and applications of X-ray absorption spectroscopy, especially those related to X-ray absorption fine structures.

This conference has been held biannually since 1981. Although the International XAFS society (IXS) had decided at XAFS X in Chicago that the forthcoming conferences would be held every three years, XAFS XI was held two years later than XAFS X in order to have a proper relationship with other related conferences. This is the second XAFS conference to be held in Japan. The last one was held in Kobe in 1992; this time it was held in Ako, a small seaside resort town close to SPring-8. The total number of participants was 401 (214 from Japan and 187 from the rest of the world), slightly more than in Chicago.

The conference consisted of five plenary talks, 33 invited talks, 89 contributed oral and 257 poster presentations. The first plenary talk was presented by Sir John M. Thomas, who demonstrated the importance of the EXAFS technique, especially time-resolved EXAFS for catalysis research. The second plenary talk was given by John Rehr, who addressed recent developments in non-empirical XAFS and XMCD analysis. The third was presented by Alain Fontaine, who showed XMCD experiments of magnetic domain changes on a nanosecond timescale. Adam Hitchcock conducted the fourth, about micro-XAFS on several polymers and soft materials. Time-resolved and space-resolved XAFS are highlights of recent XAFS research. The final plenary talk, by David Norman, concerned the future of XAFS, especially the possibility of the X-ray free-electron laser and its applications to XAFS-related techniques. All the invited and contributed talks were presented in three parallel sessions devoted to theory, data analysis, experimental techniques, dichroism, catalysis, surface physics and chemistry, molecules and clusters, materials physics, biological and environmental applications and related topics.

The second IXS Outstanding Achievement Award was given to Edward Stern of Washington University for his pioneering work on EXAFS theory and experiments and leading applications of the EXAFS techniques over many years. This also celebrated his retirement. The first IXS Outstanding Young Scientist Award was given to two people, Alexei Ankudinov for his theoretical contributions, and Adriano Filipponi for his experimental contributions. To reorganize and encourage the work of young scientists, young scientist poster prizes were awarded to six people who gave outstanding poster presentations: Olga Belyakova, Stephane Grenier, Shinji Uemoto, Marit Stange, Emmanuel Curis and Jeroen van Bokhoven.

The conference was co-organized by the Japan Synchrotron Radiation Research Institute (JASRI), the Japan Atomic Energy Research Institute (JAERI), the Institute of Physical and Chemical Research (RIKEN) and the Japanese Society for Synchrotron Radiation Research (JSSRR). We especially recognize JASRI, which organized a special team to manage the conference program, accommodation and registration of the participants, and daily services at the conference site.

As for financial support, a Grant-in-Aid for the Publication of Scientific Research from the Ministry of Education, Science, Sports and Culture is highly acknowledged. Donations and invaluable accommodations by the Hyogo prefecture and Ako city are also appreciated. Further support was given by the IUCr for young scientists and by 20 private companies. Without this support, we could not have had such a successful conference.

For the Proceedings, each participant was allowed to submit up to two papers, but all the papers were required to undergo the normal reviewing process for a regular article of the *Journal of Synchrotron Radiation*. In fact, we received around 360 papers, rejecting about 50. The Proceedings consists of 308 papers, arranged in the following way; award lecture (1), plenary (4), invited (27), theory and fundamental aspects (20), data analysis (22), experimental methods and techniques (20), related phenomena (11), dichroism (18), surface, interface and nano-structures (25), molecules and clusters (6), catalysis (33), chemistry (35), amorphous, glass and liquids (19), materials science (19), magnetic materials (14), environmental, earth and planetary science (20) biological systems (13).

Publishing the proceedings in a timely fashion requires a great deal of effort from the regular editors as well as from a number of guest editors. We appreciate their invaluable efforts. We would also like to thank Samar Hasnain, one of the Editors of the journal, and Peter Strickland, Tony Weight and David Hoare of the Editorial Office of the *Journal of Synchrotron Radiation*, for their elaborate task of editing the Proceedings in such a short period.

The Chairman of the International XAFS society has changed from Dale Sayers to Jim Penner-Hahn, and T. K. Sham has been elected as vice chairman. XAFS XII will be held in Lund, Sweden in 2003.

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