

Preface

The Tenth International Conference on XAFS (XAFS X) was held in Chicago, USA, on 10–14 August 1998 at the Illinois Institute of Technology (IIT). It is the latest in a highly successful series of meetings devoted to techniques and results in X-ray absorption spectroscopy. As the papers in this volume demonstrate, X-ray absorption techniques have found application in an impressive range of disciplines. The series of XAFS conferences is one of the few forums to bring together this diverse set of researchers, and the result has been stimulating and informative meetings. XAFS X followed this course, with substantial contributions in biology, chemistry, materials science, physics, and the environmental and geosciences. It appears that the application of XAFS has not yet reached its limits, as there continues to be important developments in both techniques and instrumentation, and in theory and data analysis.

The organization of the conference and these proceedings is generally by scientific discipline with additional sections on instrumentation and theory. Each daily session started with a Plenary talk, two of which are included at the beginning of this volume: an entertaining personal history by Farrel Lytle, and a provocative presentation by Diek Koningsberger on the application of XAFS to catalysis.

Three poster sessions were held. To recognize and encourage the work of younger scientists, a young scientist poster prize was awarded at each session. These daily awards went to Martine Duff for 'Micro-XAS studies with sorbed plutonium on tuff', Delphine Cabaret for 'Quantitative electronic structure analysis by full-potential calculations: study of TiO_2 as a test case', and Stephanie Rossano for 'Iron surrounding in $\text{CaFeSi}_2\text{O}_6$ glass by combined use of EXAFS spectroscopy and molecular dynamics simulation'. In addition, the International Union for Crystallography sponsored prizes for the best poster from a young scientist in the areas of biology and instrumentation. The biology award went to Alexis Templeton for 'XAFS and XSW studies of the distribution and chemical speciation of Pb sorbed to biofilms on SiO_2 and Al_2O_3 surfaces' and the instrumentation award went to Motohiro Suzuki for 'Polarization modulation technique using phase retarder for measurements of X-ray magnetic circular dichroism'.

Planning and executing a meeting of this size requires a major effort by a large number of people. We would like to thank the

members of the International Program Committee for their efforts in putting together a stimulating program. We especially recognize the efforts of Professor Jim Penner-Hahn as chair of this committee. We also recognize the input from the International Committee for their helpful comments and suggestions. Our sincere thanks are extended to the many IIT staff members who provided much of the real labor needed. A special thank you is given to Professors Carlo Segre, Grant Bunker and Dean Chapman. We also wish to acknowledge Ms Homer Harwood of the CSRRI for all of her help and professionalism. A very special thanks to Ms Faith Kancauski for handling all the horrid details, concerning hotel commitments, catering arrangements, and organizing the cruise/reception. (We will not give her credit for the weather, though.)

We acknowledge financial support from Exxon Corp, Amoco Corp, University of Notre Dame, BioCAT, the Illinois Board of Higher Education/HECA, University of Chicago, and the Department of Biological, Chemical, and Physical Sciences, IIT. Facilities, lecture halls, A/V equipment, computer terminals, publication office and conference office provided free of charge by the Vice President of Main Campus, IIT.

The papers in these proceedings have passed through the normal reviewing process for the *Journal of Synchrotron Radiation*. Accomplishing this in a timely fashion required a lot of effort from the regular editors, as well as a number of guest editors selected for the proceedings. The guest editors deserve special recognition for their handling of the bulk of the manuscripts. We also would like to thank Professor Samar Hasnain, and Mr Peter Strickland and Dr Tony Weight of the *Journal of Synchrotron Radiation*, for their efforts in putting together these proceedings.

The International XAFS Society, which oversees the XAFS conferences, has decided that future meetings should be on a three-year cycle. However, to achieve a proper relationship with other meetings of interest to the community, the next meeting will again be held two years from XAFS X. XAFS XI will be held in July 2000 at Ako City, Japan. In 2003, the three-year rotation will begin with XAFS XII in Lund, Sweden.

B. A. Bunker
T. I. Morrison
S. M. Heald