Applications of Synchrotron Radiation Techniques to Materials Science V
Applications of Synchrotron Radiation Techniques to Materials Science V

Symposium held November 29–December 3, 1999, Boston, Massachusetts, U.S.A.

EDITORS:

Stuart R. Stock
Georgia Institute of Technology
Atlanta, Georgia, U.S.A.

Susan M. Mini
Northern Illinois University
DeKalb, Illinois, U.S.A.
and
Argonne National Laboratory
Argonne, Illinois, U.S.A.

Dale L. Perry
Lawrence Berkeley National Laboratory
Berkeley, California, U.S.A.

Materials Research Society
Warrendale, Pennsylvania
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PREFACE


Each year, synchrotron facilities, both in the United States and in other countries, are utilized for more applications of synchrotron radiation as they pertain to materials science. Both basic and applied research possibilities are manifold, including studies of materials mentioned below and those that are yet to be discovered. The combination of synchrotron-based spectroscopic techniques with ever-increasing high-resolution microscopy allows researchers to study very small domains of materials in an attempt to understand their chemical and electronic properties. This is especially important for composites and related materials involving material bonding interfaces.

Topics covered in this proceedings include surfaces, interfaces, electronic materials, metal oxides, metal sulfides, radiation detector materials, thin films, carbides, polymers, alloys, nanoparticles, and metal composites. Results reported at this symposium relate recent advances in x-ray absorption and scattering, imaging, tomography, microscopy, and diffraction methods.

Recently, Professor J.B. Cohen, a strong advocate for the materials synchrotron radiation community, died suddenly. He planned a full-time return to teaching and research after over a decade of carrying heavy administrative burdens. He will be missed by the entire materials community, not just those of us working with synchrotron radiation. As an acknowledgment of his leadership, the editors of this volume dedicate it to his memory.

Stuart R. Stock
Susan M. Mini
Dale L. Perry

January 2000
ACKNOWLEDGMENTS

The symposium organizers wish to thank the following for funding used to support this endeavor:

Blake Industries
Lawrence Livermore National Laboratory
Chemistry and Materials Science Department
Northern Illinois University
The Graduate School and the College of Liberal Arts and Sciences

The organizers also wish to thank the session chairs (Dale E. Alexander, Paul Fenter, Tony W.H. van Buuren, Uta Ruett, Mark R. Antonio, Stephen R. Wasserman, Debra R. Rolison, and Paul J. Schilling), and the symposium assistant, Cora Lind, who generously gave of their time to make the event so successful, as well as Marlene White for her help in preparing the manuscript for publication.