

PREFACE

Dedication to Orson L. Anderson

This special issue of *American Mineralogist* is dedicated to Orson L. Anderson, marking 35 years of outstanding research in academic geosciences. The collection of papers in this volume represents topics of interest to Orson, as well as contributions from former students, postdoctoral associates, colleagues, and friends throughout the world.

Orson received all of his degrees from the University of Utah, earning his Ph.D. in Physics in 1951 under the supervision of Henry Eyring and Walter Elsasser. He joined Bell Telephone Laboratories where he spent nine years working in the physical acoustics group of Warren Mason.

Following stints at American Standards Research Laboratories and Alfred University's College of Ceramics (where he recruited Edward Schreiber), Orson joined the research staff of the Lamont Geological Observatory in 1963. After returning from a term as Visiting Professor at the California Institute of Technology, he was appointed Professor of Geology at Columbia University. During his "Lamont era," he and his colleagues Schreiber and Naohiro Soga and their students published more than 75 papers on a wide range of topics in the newly emerging field of Mineral Physics, and served eight years as Co-Editor in Chief of the *Journal of Geophysical Research*.

In 1971, Orson moved his laboratory to the University of California at Los Angeles to begin a second academic career, during which he served for 15 years as system-wide Director of the University of California Institute of Geophysics and Planetary Geophysics. Orson was also the founding Chair of the Committee on Mineral Physics of the American Geophysical Union. In this "UCLA era," Orson collaborated with Mineo Kumazawa through a series of Japanese postdoctoral associates to develop and exploit resonant ultrasound spectroscopy (RUS) for measuring the elasticity of many minerals at high temperature. His pioneering work in RUS was recognized in June 1999 through a national citation presented by representatives of the Office of Naval Research and the The National Center for Physical Acoustics at the University of Mississippi.

Orson Anderson's scientific career has been devoted to three areas of research: (1) Thermal equations of state of solids; (2) High-pressure, high-temperature physical acoustics experiments; and (3) Application of thermodynamics to solids of geophysical interest. He continues to pursue these interests as Professor of Geophysics in UCLA's Department of Earth and Space Sciences, even as he escapes to spend time with his wife, Berniece, who lives in Green River, Utah, and is actively working on Publication No. 200.

As two of Orson's former Ph.D. students, it has been a special pleasure for us to convene the Topical Session of the American Geophysical Union in December 1998 and to serve as Guest Associate Editors for this special issue of the *American Mineralogist*.

ROBERT C. LIEBERMANN

*Department of Geosciences
State University of New York at Stony Brook
Stony Brook, New York 11794-2100*

DONALD G. ISAAK

*Institute of Geophysics and Planetary Physics
University of California at Los Angeles
Los Angeles, California 90095-1567*