

Preface

It feels both natural and peculiar having organized this Festschrift for our friend and colleague Howard Reiss. "Natural" because of the long span and great breadth of his impressive research contributions and the great respect and affection that so many of us have for him. "Peculiar" because it is hard to conceive of any waning of the boyish enthusiasm and originality that he brings to all of his scientific endeavors.

Howard's school years were interrupted by participation (1944–1946) in the Manhattan project. After completing his Ph.D. thesis (Columbia University, 1949) on moving boundary effects in colloidal systems, he served briefly as instructor/assistant professor at Boston University. It was then that he began his four decades of influential researches on nucleation phenomena and interfacial physical chemistry.

In 1952 he joined Bell Telephone Laboratories at the height of the post-transistor excitement in solid-state science. There he made the first of his many important contributions to semiconductor physics and defect dynamics. Before leaving Bell he had also formulated the scaled particle theory and hard particle fluids to which he (and many others!) would return so regularly and fruitfully in later years.

In 1962 Howard was invited by North American Aviation to build a state-of-the-art pure research laboratory in Southern California. He accepted and established the "science center" and staffed it with an exceptionally talented group covering most of the key subdisciplines in chemistry, physics, and materials science. He led this group by personal example—incisive physical insight, infectious enthusiasm, and the intellectual courage and drive to always try new things in the simplest way possible.

In 1968 academia called and Howard joined UCLA as a professor of chemistry. At UCLA he has continued to pursue his diverse interests in nucleation phenomena, solid-state chemistry, and the statistical mechanics of simple fluids. At the same time he has initiated many challenging new research programs in gas-phase polymerization and ion transport in membranes.

Howard's pioneering contributions to the full spectrum of physical science have not gone without formal recognition. He has won many

prestigious awards for his research, including the Tolman Medal (1973) and the Kendall Prize in Colloid and Surface Science (1980) and he was elected to the National Academy of Sciences in 1976. He has delivered plenary talks and endowed lectures throughout the world and has regularly been consulted by professional societies, universities, government agencies, and industry. He was the founding editor of both the *Journal of Statistical Physics* and *Progress in Solid State Chemistry*.

In spite of this renown, Howard remains as genuinely modest and absent-minded as ever, and no less keen on immersing himself as fully as he can in his paper-and-pencil and hands-on research.

One of us (J.L.L.) remembers fondly his early collaboration with Howard on scaled particle theory, and values highly their friendship ever since. The other (W.M.G.) appreciates every day the challenge and stimulation of having Howard as a next-door colleague at UCLA. Together we are sure we speak for all the contributors to this volume, as well as many others who have had the pleasure of crossing scientific paths with him, when we send Howard our warmest wishes and congratulations on his 66th birthday.

William M. Gelbart
Joel L. Lebowitz