

RUDOLPH ARTHUR MARCUS

"The interaction of experiment and theory, each stimulating the other, has been and continues to be one of the joys of my experiences," writes Rudolph Marcus. His pioneering work in electron transfer reactions, unimolecular reactions, electrode reactions, semiclassical theory of collisions and of bound states, and chemical reaction coordinates has influenced physics and biology and reshaped the study of modern chemistry. His career was crowned in 1992 with the awarding of the Nobel Prize in Chemistry.

Rudolph Marcus arrived at this University for post-doctoral study in 1949, after completing his education at McGill University in Montreal, Canada. For two years he worked closely with Professor Oscar K. Rice, the only one of six well-known theoreticians in the United States who responded favorably to his application for a fellowship. While here, he developed his theory of unimolecular reactions, known as the RRKM theory, an acronym that includes the names of both Rice and Marcus. Professor Marcus also discovered his future wife in the Department of Sociology and would remember fondly "the red clay, the sandy walks, and the graciousness of the people" of Chapel Hill.

Since 1978, he has been Arthur Amos Noyes Professor of Chemistry at the California Institute of Technology. In addition to the Nobel Prize, his work has been acclaimed with the awarding of the prestigious Linus Pauling Award of the American Chemical Society (1991) and the Joseph O. Hirschfelder Prize in Theoretical Chemistry (1993).

To his growing list of honorary Doctor of Science degrees, we are proud, forty-five years after he launched his career on the red clay of this campus, to recall Rudolph Marcus and add our own, this Doctor of Science degree.