MIAMI UNIVERSITY OXFORD, OHIO 45056

OFFICE OF THE UNIVERSITY SECRETARY *Telephone:* AREA CODE 513, 529-3610

# MEMORIAL TO PROFESSOR HOWARD LESTER RITTER
## THE UNIVERSITY SENATE OF MIAMI UNIVERSITY, DECEMBER 6, 1967

On the evening of November 21, 1967, Miami University lost one of its most illustrious scholars. The sudden death of Howard Lester Ritter, Research Professor of Chemistry, came as a severe shock to his family and many friends. His passing has deep impact upon the cultural and academic excellence of this University.

Howard Lester Ritter was born in Washington, D. C., on February 12, 1916, and some 22 years later was graduated from the U. S. Naval Academy. He then pursued a career in physical chemistry and earned M.S. and Ph.D. degrees from the Pennsylvania State University in 1941 and 1943. After three years of research in the laboratories of the Socony-Mobil Oil Company, the desire to teach led him to six productive years at the University of Wisconsin. When Harvey Clayton Brill retired from the Miami University staff in 1952, Howard Ritter was called from Wisconsin to replace him as Professor and Chairman of the Chemistry Department. Howard served in that capacity until 1959 when he asked to be relieved of the department chairmanship so that he could devote more time to his research and teaching activities. Three years later he was made Research Professor of Chemistry, a position which he held until his death.

Howard Ritter belonged to and served a number of professional organizations, including some half dozen honor or recognition societies in the various areas of science and mathematics. He was

a member of the American Physical Society and of the American Chemical Society in which he served as national councilor. In 1962, the thousand members of the Cincinnati Section of The American Chemical Society honored Howard Ritter with their Eminent Chemist Award.

Howard's research interests dealt chiefly with crystallography and the structure of liquids. His work which made use of x-ray and neutron diffraction analysis was supported by grants from the U. S. Air Force, the National Science Foundation, the Research Corporation, and the American Chemical Society's Petroleum Research Fund. This research culminated in many scholarly publications. A paper now in press is based on work done during the last year and a half as a Visiting Scientist at the Puerto Rico Nuclear Center of the United States Atomic Energy Commission and as Resident Associate at Argonne National Laboratory.

Howard Ritter possessed a piercingly analytical mind. He could quickly reach to the heart of a problem and then frequently propose a logical pathway to its solution. His breadth of knowledge and his appreciation of the interdependency of the disciplines were a source of inspiration to his colleagues, not only those in the sciences, but in all departments of the University. The entire University was his laboratory. He could bring together the meaning of chemistry, the laws of physics, the beauty of mathematics, the scope of astronomy, and the role of biology. He firmly believed that the communicative arts provided the center of learning. He had considerable knowledge of French, German, Russian, Latin, Spanish, Portuguese, and Arabic. Above all these,

however, he gave to English the position of honor. His colleagues will recall many occasions when he supplied a particularly significant word or a definitive phrase. The precision of his experiments and the keenness of his observations were matched by the clarity of his oral and written expression.

Howard Ritter's life was built upon the pleasure and excitement of learning. Of his many talents, none leaves a more indelible impression than his ability as a teacher. The scope of his teaching was unlimited. He loved to observe, to describe, to interpret, to integrate, to predict. He designed and built models and other teaching devices to strengthen his explanations. He was sensitive to the feelings and limitations of students and colleagues and had infinite patience with anyone who wanted to learn.

Howard Ritter's consuming interest in students was directed to all levels of education. He participated in institutes and workshops to help elementary teachers. He designed physical science experiments and prepared texts for upper elementary and junior high school students. Shortly after coming to Miami, he wrote the college texts, "An Introduction to Chemistry" and "An Introductory Laboratory Course in Chemistry." At the time of his death, he was in coauthorship of a reference work on the history of crystallography.

Perhaps his viewpoint as a teacher is best expressed in an excerpt from an address, entitled "The Place of the Sciences in a Liberal Education," which he delivered to the Faculty of the

College of Arts and Science on February 9, 1959.

> "As a teacher, I am disturbed by the student who asks me 'Is it true that water boils at a lower temperature on a mountain top than at sea level?'; and who, when I thoughtlessly answer yes or no, walks away satisfied. I would want our students to understand that merely knowing a fact is nearly useless and wastefully uneconomical. I would want our students to realize that such questions have answers that can be reasoned out, and that they have an obligation as educated people to know why as well as to know what. I would want our students to reject authoritarianism, to accept as true only those things they understand must be true, to reject as false those things they understand cannot be true, and to be open-minded about the rest. We would have our students adopt an actively critical attitude; to distinguish between objective evidence that a sensible man will accept and the subjective interpretation of evidence that a sensible man is free to reject. We hope that they will see in our classes enough examples of logical argument to enable them to distinguish between the pertinent and the non-pertinent, that they may avoid the pitfalls of the non-sequitur. We would have our students see clearly the shamefulness of the Tennessee monkey trials, the persecution of Galileo, the enthronement of Lysenko, as the blind and criminal substitution of authoritarianism for critical thought.
>
> All the sciences together present a front, disunited by legitimate controversy but united in the thesis that material events are inevitable, predictable, and understandable. We want our students to see the material world as a complex of events subject to a small number of inexorable theories and laws. Such a picture of the world - that they may understand it, control it, and admire it - is the picture we would have our students carry from our classes."

Howard did not confine his attention to academic matters. His intense curiosity and lively mind led him to many diverse activities. He invented games and he build extensive collections of coins, stamps, postmarks and wood samples.

Howard had a well developed and subtle sense of humor. Like that of many who think quickly, his humor usually took the form of a spontaneous remark in the context of the conversation. It was never cutting nor meant to ridicule. To illustrate: for

some years he drove a Ford of venerable age. For reasons unknown to Howard, a padlock appeared one day on one of the exterior door handles. When a passenger pointed out to him that he had a large padlock hanging from his door, he said, "Why yes, don't you have one?"

Howard Ritter served the entire University. His clear logical thinking, his calm rationality, his gentleness, and his ability to remove irrelevancies, enabled him to make major contributions to many committees that were involved with academic policies of the University. He was Chairman of the Committee on Faculty Affairs at the time it proposed the Enabling Act of the Faculty Council. He served as a decisive member on committees which proposed the Common Curriculum and the Trimester Plan. His membership in many other committees included the Faculty Council, the Library Advisory Committee and the Committee on Faculty Rights and Responsibilities.

Howard Ritter and Marie Kruecke were married on July 12, 1941. They have five children: Howard, Jr., 22, was graduated from Miami University last April and is now serving as a second lieutenant in the United States Air Force; Carl (Pete), 19, is a sophomore at Miami University; Mary Ann, 16, is a junior at Talawanda High School; Margaret Jo (Peggy), 13, is in the 8th grade at McGuffey School; Mark, 6, is in the first grade at McGuffey School.

The death of Howard Ritter is one of Miami University's greatest losses. His colleagues in all department s of the

University, his students, and his friends remember him as a person of high intellect. He demonstrated an exceptional breadth of knowledge and an accuracy and clarity of expression. He stimulated us to think more precisely, to understand more clearly, and to strive to push back the boundaries of ignorance.

Robert T. Harris
Raymond L. Moloney
Percy M. Mundell
David M. Scotford
John H. Buckingham, Chairman