IN MEMORIAM

ROWLAND PETTIT

Professor Rowland Pettit died December 10, 1981, in Austin. He is survived by his wife, Flora Hunter Pettit, whom he married in 1959, a daughter, Nancy Selina Pettit, and a son, George Hunter Pettit, all of Austin, and two brothers, Garth Pettit of Adelaide, South Australia, and Ian Pettit, of Kemah, Texas.

Professor Pettit was born February 6, 1927, in Adelaide, South Australia. He became an American citizen in 1969. After completing his secondary education in Port Lincoln, Australia, he attended the University of Adelaide, where he received the B.Sc. degree in 1949, the M.Sc. degree in 1950, and the Ph.D. degree in Chemistry in 1953. He was awarded an 1851 Exhibition Fellowship for advanced study in England. He did research with Professor Michael Dewar at the University of London, where he received a second Ph.D. in Chemistry in 1954. He held an Imperial Chemical Industries Fellowship until 1957, when he joined the faculty of The University of Texas at Austin as Assistant Professor of Chemistry. He served as Associate Professor (1960-1963), Professor (1963-1980), Chairman of the Department of Chemistry (1970-1974), and W.T. Doherty Professor of Chemistry (1980-1982).

He was a member of the American Chemical Society, the Chemical Society of London, the American Academy of Arts and Sciences, and the National Academy of Sciences U.S.A. He received the Southwest Regional Award, American Chemical Society, in 1968. He served as a consultant to Exxon Corporation for about twenty years.

Professor Pettit directed the doctoral research work of thirty-eight (38) Ph.D. candidates, and the work of seven (7) M.A. candidates. He and his students and co-workers published 121 research articles.

Professor Pettit was an internationally recognized organic chemist, whose research contributions were particularly noteworthy in that they brought an unusual balance of theoretical, mechanistic, and synthetic insight to the solution of problems on the frontier of organic and organometallic chemistry. His most striking contribution was the synthesis of cyclobutadiene, a theoretically very important compound, the synthesis of which had eluded determined efforts by organic chemists. In Pettit's hands, cyclobutadiene became a versatile and important intermediate for the synthesis of numerous interesting cyclic compounds including Dewar benzenes, cubane, and various polycyclic cyclobutene derivatives. Other facets of Pettit's widespread research activities include a detailed study of the chemistry of iron carbonyl complexes of olefins and allyl and pentadienyl cations, the discovery of novel sandwich and half-sandwich compounds containing tropylium and cyclobutadiene as ligands, the first preparation of several novel and important aromatic systems (perinaphthenium, homotropylium, and selanapyrylium), discovery of the catalytic effect of silver and platinum on "forbidden" electrocyclic reactions, and preparation of novel organometallic species and their use in organic synthesis and in catalysis.

In the last six years Professor Pettit shifted his interest to an area of enormous industrial potential, that of production of synthetic fuels by the use of metal-catalyzed processes. His recent publications involving the chain propagating step in the Fischer-Tropsch reaction are regarded by most experts in the field as clearly seminal. His most recent work, carried out up until the time of his death, which concerned the hydrogenolysis of alkanes, also a reaction of great industrial import, was beautiful in its simplicity.

Throughout his career, Professor Pettit's ability to perceive the essence of a problem and then to design a set of simple experiments which give a definitive answer has been his trademark. His research papers have always had the characteristic of simple elegance.

In addition to the legacy in the scientific literature, Professor Pettit leaves a group of very good scientists whom he has trained. He believed very strongly in close interaction with his research group and, as a consequence, always restricted the size of his group to approximately ten members. He was intimately involved in the research which went on in his group and could often be found in the laboratory demonstrating to one of his co-workers some experimental manipulation or new experimental approach. His students were taught how to evaluate the literature critically and how to search for significant new areas to investigate. Due to this type of education, the Pettit student could generally be described as a critical, innovative problem solver.

Rolly Pettit was a truly unique individual. All who came in contact with him were attracted by his personal warmth and high spirits, coupled with superior intelligence and wit. He loved life, enjoyed people, was unpretentious and steadily optimistic, and a person of high integrity. He will also be remembered for his generosity and tolerance, skill at billiards, and recounting of anecdotes. We have all gained from our association with him.

Peter T. Flawn, President
The University of Texas at Austin

H. Paul Kelley, Secretary
The General Faculty

This Memorial Resolution was prepared by a Special Committee consisting of Lester J. Reed, (chairman), Evan P. Kyba, and Michael J. S. Dewar.