




University of Illinois
at Urbana-Champaign
Theron Standish Piper Award

This is to certify that

Nicholas Marshall

has received the 2010 *T. S. Piper Award for Graduate Research.*

This award, which is in recognition of an outstanding ability to conduct research, is intended as a memorial to the late Professor Theron Standish Piper and was established by his friends, colleagues, students, and relatives. They wish to remember, hereby, an exceptional scientist and dedicated teacher who died at the beginning of his most promising years.



S. C. Zimmerman, Ph.D.
Head, Department of Chemistry

THE T. S. PIPER AWARD

Every year the inorganic chemistry faculty present the T. S. Piper Award to one or two graduate students for outstanding contributions to chemistry here at the University of Illinois. The award consists of a certificate, a copy of "A Tribute to Theron Standish Piper" and a book or books costing up to \$200. As a part of the award, the awardees are asked to give a seminar to the department describing their research accomplishments. This year's award winners are Nicholas Marshall and Matthew T. Olsen. Matthew will be presented his award on October 22, 2010 prior to his final defense presentation at 10:00 AM in 112 Chem Annex. Nicholas' seminar will be presented on November 30, 2010 at 4:00 PM in 112 Chem Annex.

Theron Standish Piper was born in 1928. He attended Cornell University after serving two years in the armed forces and obtained his Bachelor of Arts in chemistry in 1952. During his first year of graduate work at Harvard University in 1953, he carried out research on addition compounds of silicon tetrahalides with Professor E.G. Rochow. The publication of this work the following year was the first of about fifty papers which he was to author or co-author in the eleven years to follow. In 1954 he joined Professor G. Wilkinson's group at Harvard with whom he published no less than nine papers, many of which are regarded as classics in the then young field of cyclopentadienyl transition metal chemistry. While at Harvard he discovered the first fluxional organometallic molecule, $\text{CpFe}(\text{CO})_2(\eta^1\text{-C}_5\text{H}_5)$. His ability to learn new physical techniques and apply them to chemical problems was evident when as a graduate student he independently learned to operate Harvard's recently acquired commercial n.m.r. spectrometer and the first to examine proton n.m.r. absorptions of transition metal organometallic compounds. After obtaining his Ph.D. degree in 1956, he became Instructor of Chemistry at the University of Illinois. At Illinois he rapidly acquired a thorough theoretical background and in 1959 began to put this background into practice. He was one of the first men to recognize the importance of polarized light in the rapidly developing area of the spectroscopy of coordination compounds. While on the faculty of the University of Illinois, Stan Piper made important contributions in coordination chemistry: applying new spectroscopic techniques, investigating rearrangement mechanisms, and exploring the theory of the structure and electronic nature of coordination compounds. Professor Piper's attitude toward research was characterized by a constant drive to understand the theory of the structure and electronic nature of coordination compounds. He always respected and gave priority to original, well-planned research ideas and constantly encouraged students to test them experimentally.

In August of 1965, a few months after being promoted to Professor, Stan Piper died. His impact on inorganic chemistry is great, and this Award was established by his friends, colleagues, students, and relatives as a tribute to his memory.