



IN MEMORIAM: WAYNE KEITH WILMARTH

Wayne Wilmarth, Professor of Chemistry at the University of Southern California, died suddenly on June 23, 1980, of a massive stroke. He was born in Wheatland, Iowa on April 22, 1917. He received his undergraduate education at Cornell College, Mount Vernon, Iowa (B.A., 1938) and carried out his graduate work at the University of California at Berkeley (Ph.D., 1942). His Ph.D. research was directed by Professor Melvin Calvin. Professor Wilmarth was active in classified work at the University of California at Berkeley during the period 1941–1946 and was also on the teaching staff there as an instructor during 1943–1946. In 1946, he accepted a position as Assistant Professor of Chemistry at the University of Southern California, and achieved the rank of Professor in 1957.

At the time of his death, Professor Wilmarth had been drafting and revising several manuscripts. Clymene Wilmarth, Wayne's wife, informed Harold Friedman about the existence of the unfinished manuscripts and expressed her hope that Wayne's friends would undertake the task of completing the manuscripts for publication. Harold, in turn, informed me of Clymene's hopes and emphasized the importance of having Wayne's work published. In August, 1980, at the U.S.C. social hour during the meeting of the American Chemical Society in Las Vegas, I suggested the possibility of

collecting all the manuscripts in a single issue of an appropriate journal—a testimonial to Professor Wilmarth's research. Dave Stanbury and Alvin Crumbliss expressed their strong support for the idea and promised contributions, while I was to act as editor and reviewer. As the project began to take shape, Henry Po became the driving force behind it. With the help of Debbie Salkin, Henry Po collected the unfinished manuscripts and unpublished data, and mailed them to the appropriate individuals. He kept track of the progress of the work and acted as a liaison between writers and editor, vigorously pushing for commitments to be fulfilled and deadlines to be met. I wish to acknowledge that without Henry Po's dedication and persistence the project would not have been carried to completion.

While the manuscripts were being completed by Professor Wilmarth's co-workers, I contacted Henry Taube and Harold Friedman, two of Wayne's closest friends, and Barry Lever, editor of *Coordination Chemistry Reviews*, and informed them of the project under way. I was gratified by their enthusiastic support—Henry and Harold by promising to write essays about various aspects of Wayne's career, and Barry by graciously agreeing to publish the tribute to Wayne in an issue of *Coordination Chemistry Reviews*. Professor James C. Warf, a long-time colleague and friend of Wayne's, was also contacted and he generously undertook the task of preparing a complete list of Professor Wilmarth's publications.

The present collection of essays and scientific papers is the belated result of the activity and efforts described above. In his essay, Henry Taube, from his vantage point as the foremost authority in the field of inorganic reaction mechanisms, points out the impact and significance of Professor Wilmarth's published work, and summarizes its key findings. Henry's scholarly contribution reminds us of the breadth and depth of Professor Wilmarth's science and brings out Wayne's character, integrity, and exemplary approach to research. Harold Friedman, from his perspective as junior colleague and devoted friend, emphasizes some of his personal experiences with Wayne. From Harold's brief, but profoundly human essay, we catch a glimpse of Wayne as a generous and highly principled individual with an uncompromising commitment to science. The first six scientific papers were chosen from the many which were written because they came as close as possible to possessing the "Wilmarth touch"—a special combination of exactness, meticulousness, certainties stated firmly, and doubts expressed in the thorough exploration of alternatives—without Wayne himself actually preparing the final manuscript. The last paper in the collection, a study of the chain reaction between persulfate and hydrogen, describes work carried out in Professor Wilmarth's laboratories in the 1950s. I was hesitant at first to include this paper in the collection. Wayne had written numerous drafts and had revised each of them in great detail, but he was not satisfied with the

final result as evidenced by the fact that a paper on the subject was never submitted. However, since the work represents a massive and formidable effort to uncover every conceivable feature of an extremely complicated reaction, and because it epitomizes Professor Wilmarth's approach to research, I decided that it was appropriate to conclude the present tribute with Wayne's final version of the manuscript, slightly edited by incorporating some of the revisions suggested by Newton Schwartz and approved by Wayne himself.

Finally, I want to express my gratitude to all the individuals who helped with the project. Their enthusiastic response certainly demonstrates the respect and admiration which we all feel for Wayne Wilmarth. On a personal note, I consider myself privileged to have been among those who worked with Wayne. His example as teacher, research mentor and scientist has been an inspiration both at the beginning and throughout my professional career.

Albert Haim
Stony Brook, New York
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