JAMES R. KATZER
1941–2012

Elected in 1998

“For research on catalysis and reaction engineering, and leadership in commercializing catalytic processes.”

BY JAMES WEI

JAMES R. KATZER was the retired manager of strategic planning for ExxonMobil and affiliate professor of chemical engineering at Iowa State University. He passed away in his sleep on November 2, 2012, at his mother’s house in Marshalltown, Iowa, after a family gathering with his siblings.

He was born on September 30, 1941, to Robert Katzer and Velma McWilliams in Grundy County, Iowa. He came from a farming family and spent a great deal of time during his childhood working on a farm. He lost a leg because of a farm accident, but this did not stop him from engaging in many physically demanding activities later, such as gardening, sailing, and ocean scuba diving.

He obtained his bachelor’s degree in chemical engineering at nearby Iowa State University and in 1969 completed his doctorate in chemical engineering at MIT. He became a professor at the University of Delaware and began his teaching and research in the field of catalysis and reaction engineering.

Unlike many of his contemporaries, Jim was not confined to the theoretical and scientific side of catalysis but championed the study of industrial practice and benefit to society as well. He and Bruce Gates cofounded the university’s Center for Catalytic Science and Technology, which attracted a great deal of attention and cooperation from industry. Gates said that
“Katzer established himself as a strong teacher and scholar [at the University of Delaware], and realized the vision of the Center, which was one of the first of its kind.”

Katzer and Gates also collaborated, together with George Schuit, to produce the landmark textbook *Chemistry of Catalytic Processes* (McGraw-Hill, 1979), whose five chapters are devoted to the most important industrial processes. Several generations of chemical engineering and chemistry students were taught from this book on both the scientific and applied aspects of catalytic science and engineering.

Jim was recruited by Mobil Oil Research in 1981 to become a member of the Central Research Laboratory in Princeton, New Jersey. Pretty soon he was drawn into rescuing an important but failing project in the Paulsboro Laboratory devoted to process development and engineering. He became a relentless driving force to do things right, and worked very hard and long to save the project.

He subsequently showed another side of his talents and achievements in administration and planning, and rose to become vice president for technology, working with Mike Ramage, Mobil’s chief technology officer. Jim’s main responsibility was downstream research and development, involving the conversion of crude oil and gas into useful products of fuel and chemicals. He was also concerned about the environment and global warming, and assembled a technical advisory group that was instrumental in changing the views of corporate management and produced a public pamphlet to explain the need for responsibility in carbon dioxide emissions. Ramage said, “Jim had immense credibility in the upper echelon of Mobil, and they often asked about [his] views before coming to conclusions.” When Exxon merged with Mobil in 1999, he became manager of strategic planning for the new company.

He chose to retire in 2003, and became an affiliate professor at Iowa State University, where he received the Marston Medal, the university’s highest alumni award. He remained very active at the university, and chaired its external advisory committee.
He was elected to the National Academy of Engineering in 1998 and became active in several of its committees. He also served on National Research Council committees that produced the reports *Transitions to Alternative Transportation Technologies* (2010) and *Liquid Transportation Fuels from Coal and Biomass* (2009). Robert Williams of Princeton worked with him on these studies and said, “It might come as a surprise to many of his oil industry colleagues, he came to be also passionately interested in the future of coal.” Indeed, Jim served as editor and executive director of the MIT committee that produced the 2007 report on *The Future of Coal*.

He was active in international professional societies and meetings as well, including the advisory committee of the National Institute of Clean and Low Carbon Energy (NICE) sponsored by the Shenhua Group, the world’s largest coal company. And he helped to organize the 6th Sino-US Chemical Engineering Conference.

People remember Jim as a perfect gentleman, always smiling, never complaining, and always ready to help others. Every time he came to the Iowa State campus, he brought chocolates or orchids and flowers for the staff members. He seldom talked about himself and never self-promoted, so it is quite possible that some of his achievements remain unpublicized. He had an exemplary work ethic and was always working on numerous projects at the same time.

He made his home in Washington, DC, in the winter, and in Blue Hill, Maine, in the summer. His house on the shore in Maine occupies three acres, one of which is devoted to flowers, ferns, and stone walls. He enjoyed gardening despite the difficulties of gardening on a rocky slope by the sea. He was a member of the Blue Hill Garden Club. He also took pleasure in symphonic music—his favorite composers were Bach, Beethoven, and Mozart—and the choral music of requiems and oratorios by Handel and Haydn.

Jim loved sailing and had a 22-foot sailboat, which he sailed from Delaware to Cape May, New Jersey. Delaware Bay is full of shoals, has a strong tidal current, and is completely exposed to the winds and waves. He would not hesitate to tack upwind...
into fog and poor visibility with his son Robert, without GPS or other modern navigation equipment, depending only on a compass and dead reckoning. As his friend and sailing companion Fred Krambeck said, “This is really the essence of sailing, and it’s kind of a metaphor for life in general. No matter what challenges you face in meeting your goals, you need to remember exactly what the goals are. And always follow your compass.”

He was married in 1980 to Isabelle McGregor, after they met on a redeye flight from San Francisco to Boston. Their son Robert is a medical doctor married to Jenni with a daughter, Autumn; and their daughter Anne is a graphic artist.

Jim will be greatly missed by everyone who knew him.