



HAREN S. GANDHI

1941–2010

Elected in 1999

“For contributions to the research and development of automotive catalysts.”

BY DERRICK M. KUZAK

HAREN S. GANDHI, Henry Ford Technical Fellow at the Ford Motor Company and one of the world’s foremost authorities in the area of automotive emissions control, died on January 23, 2010, at the age of 68.

Dr. Gandhi was born on May 2, 1941, in Calcutta, India. He received a bachelor’s degree in chemical engineering from the University of Bombay and a master’s of science and doctorate degrees from the University of Detroit. He joined the Ford Motor Company as a research engineer in 1967 and went on to achieve the rank of Henry Ford Technical Fellow, the highest level that a scientist or engineer can achieve within the company, a position he held for 16 years.

Dr. Gandhi was the author of 70 technical publications and earned 53 U.S. patents, with many more patents awarded in other countries. His research involved seminal contributions in the areas of three-way automotive catalysis, including landmark papers on oxygen storage, catalyst poisoning by fuel and oil components (lead, manganese, phosphorus, zinc, sulfur), and optimized precious metal utilization. Under his direction, Ford was the first company to employ nonplatinum and nonrhodium three-way catalyst technology in the

United States. He worked closely throughout his career with catalyst supplier companies, government agencies, national laboratories, universities, and fuel and oil additive companies. To this end, his work arguably involved the greatest scope of anyone working in the broad area of automotive emissions controls.

During his long career, Dr. Gandhi received numerous technical awards, chief of which was the 2002 National Medal of Technology and Innovation for his contributions to the research, development, and commercialization of automotive exhaust catalyst technology. This marked the first time for any member within the entire automotive industry to win this prestigious award. In addition, Dr. Gandhi received five prestigious Henry Ford Technological Awards, the most bestowed on any single researcher within the Ford Motor Company. He also received the Platinum Award from the Institute of Chemical Technology–Mumbai, marking its Platinum Jubilee Year in 2009, the Pacific Basin Award in 2001, the Manufacturers of Emission Controls Association 25th Anniversary Outstanding Technical Contributions Award in 2000, the PNGV Medal (Partnership for a New Generation of Vehicles) for Technical Accomplishments Government-Industry Teamwork in 1997, the Real Advances in Materials Award for Palladium-Only Catalyst Development in 1994, the Award for Excellence in Catalysis by Exxon in 1992, the Technological Innovation Award by *Discover* magazine in 1990, the SAE (Society of Automotive Engineers) Ralph R. Teeter Industrial Lectureship Award for 1988–1989, the Crompton Lanchester Medal in 1987, and the AIChE (American Institute of Chemical Engineers) Chemical Engineer of the Year Award for 1982.

Dr. Gandhi had a long history of championing the introduction of emissions controls and supporting technology around the globe. He was a member of the advisory committee to the Ministry of Industry and Ministry of Environment to advise the government of India on automotive emissions regulations. He was also appointed to an expert panel by the United Nations and the government of India. Under this

U.N. program, Dr. Gandhi was involved in a joint project with the Automotive Research Institute of India to bring advanced automotive emissions testing capability to India and reduce emissions from Indian vehicles, thereby promoting environmental protection. He also interacted extensively with various groups in Europe, Korea, Brazil, China, and Australia throughout his career. In all of these countries, he led the implementation of emissions controls on Ford vehicles as emission standards were introduced and also worked with government agencies and fuel suppliers to ensure that fuel quality was of the level needed to ensure efficient performance and durability of exhaust catalyts.

Dr. Gandhi's impact and recognition went far beyond the Ford Motor Company and the automotive industry. He was elected to the National Academy of Engineering in 1999. He was appointed as a member of the Board of Directors to the International Precious Metals Institute in 2004 and the same year was appointed a member of the International Advisory Board for the 2006 Fifth Tokyo Conference on Advanced Catalytic Science & Technology for the University of Tokyo. He had been a member of the Leadership Advisory Group to the renowned Cleveland Clinic Foundation since 2003. He was also elected an SAE fellow in 2006. The National Science and Technology Medals Foundation appointed Dr. Gandhi as a member of its Board of Directors in 2006, followed by an appointment to the Nomination Evaluation Committee in 2008. Also in 2008 he was appointed to the Scientific Advisory Board for the proposed Engineering Frontier Research Center for Efficient and Clean Combustion of 21st Century Transportation Fuels, led by the University of Michigan in partnership with the Massachusetts Institute of Technology, Stanford University, the University of California–Berkeley, the University of Illinois at Urbana-Champaign, and Lawrence Livermore National Laboratories. In 2008, AIChE recognized Dr. Gandhi as being among "One Hundred Engineers of the Modern Era."

Clearly, this was an extraordinary list of accomplishments by an extraordinary man, a list of accomplishments that has

impacted Ford vehicles sold globally and makes each of those vehicles cleaner for our planet's environment. Haren Gandhi will be remembered for a unique combination of technical innovations and as a contributor and, at the same time, for his humility and commitment to mentorship and teaching.

Dr. Gandhi was a music aficionado, enjoying a wide array of music from the Beatles to Elvis and myriad Indian musical styles and compositions. He enjoyed traveling and experiencing diverse cultures and customs. He was fond of spending time with his family, his role as the doting grandfather, and the spoils of being the youngest son of a family of 13. Beyond his family, he cherished the company of close friends and enjoyed the opportunity to be in touch with his larger network of contacts and colleagues in the Detroit area and around the world. In addition to his passion for basic research, he was an astute businessman, with an uncanny ability to avoid market downfalls and stay ahead of the curve. Above all, Dr. Gandhi was best characterized by his principles—a man of honesty, integrity, ethics, hard work, dedication, and loyalty. These are the principles that guided his professional and personal life. It is these principles in conjunction with his numerous contributions that set him apart and made his life impactful for those who had the privilege of knowing him.

Dr. Gandhi is survived by his wife of 43 years, Yellow; his daughter Sangeeta, son-in-law Sanjiv, and their daughter Sarika; and his son Anand, daughter-in-law Mili, and their son Milan.

