2012 F.G. Ciapetta Lecturer

Dr. Thomas Degnan of ExxonMobil Research and Engineering is the recipient of the F.G. Ciapetta Lectureship in Catalysis, sponsored by the Grace Davison operating segment of W.R. Grace & Co. and the North American Catalysis Society.

The Award consists of a plaque and an honorarium. The plaque will be presented during the closing banquet ceremonies at the 2013 NAM in Louisville, KY. The recipient has been presenting lectures at most of the affiliated Clubs/Societies during the two-year period covered by this Lectureship. The Award is given in recognition of substantial contributions to one or more areas in the field of catalysis with emphasis on industrially significant catalysts and catalytic processes and the discovery of new catalytic reactions and systems of potential industrial importance. Tom Degnan is an internationally-recognized leader in the chemistry and applications of zeolite catalysis. Through his publications and numerous lectures, he has provided many examples of the value of fundamental scientific concepts in the practical deployment of catalytic processes. His record of scholarship stands alongside a remarkable list of more than 100 U.S. patents and his unique blend of creativity, leadership, and clarity of thought has made him not only a leading industrial inventor, but also an ambassador of industrial catalysis research in our community at large.

Tom is specifically recognized with the F. G. Ciapetta Lectureship for his contributions to the discovery, development, and commercialization of molecular sieves as catalysts and for his key role in developing their applications as catalysts in important large-scale industrial processes. Throughout his industrial career, he has made seminal contributions to the discovery and commercialization of more than ten catalytic processes for the production of high-performance lubricants, clean fuels, and petrochemicals. He led a research group that discovered how active sites at zeolite crystal surfaces show unique properties in the alkylation of aromatics and coined the term “surface pocket” catalysis to describe these inorganic enzyme-like catalytic structures. His fundamental studies of paraffin isomerization on bi-functional shape-selective catalysts demonstrated the essential interplay between diffusion and reaction processes and led to the discovery of several new catalysts for the synthesis of high-quality fuels and lubricants. His research vision and management leadership also led to catalytic processes with unprecedented selectivity for the production of p-xylenes.