Robert (Bob) Farrauto
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Brief biographical Sketch

Robert (Bob) Farrauto, PhD, utilizes his 40+ years of industrial catalysis experience to currently train graduate and under graduate students in applied environmental catalysis. During his industrial career he commercialized a number of advanced materials for automotive emission control, specialty chemicals and hydrogen generation. His team invented, patented and commercialized the first precious metal-free monolithic diesel oxidation catalyst first commercialized in 1994 for trucks in the US. In the early 2000s the technology was modified for passenger car manufacturers and commercialized in the Asia, Europe and the US.

Upon retiring in 2012 from BASF (formerly Engelhard) as a Vice President of Research in 2012, he was appointed Professor of Professional Practice in the Earth and Environmental Engineering (EEE) Department of Columbia University in the City of New York. The goal of his team's research is the development of new materials and catalysts for a sustainable environment. The group's current research focuses on advanced materials for CO_2 capture from power plants and direct capture of CO_2 from air and its' catalytic conversion to fuel. His team has published a number of advancements in aging performance and reduced Ru content for effective use. These materials, for which two patent applications have been filed, are now in pilot plant studies with engineering companies. His secondary research projects include the catalytic abatement of toxic emissions from mobile (vehicles) and stationary sources (power plants).

Bob is the author (co-author) of 140 journal publications and 56 US patents. He is co-author of three catalyst textbooks *"Catalytic Air Pollution Control: Commercial Technology"* Third edition, Wiley and Sons, New York, NY, 2009. *"Fundamentals of Industrial Catalytic Processes"* Second edition, Wiley and Sons, New York, NY, 2006 and *"Introduction to Catalysis and Industrial Catalytic Processes*" Wiley and Sons, New York, NY, 2016, He has a Google scholar rating of 58 (15,000 citations).

He is a senior member of the National Academy of Inventors and recipient of the 2016 Distinguished Faculty Teaching Award (2016) sponsored by the Columbia Engineering Alumni Association. He is the recipient of a number of research awards, including the 2008 Ciapetta Lectureship Award sponsored by the North American Catalysis Society, the 2005 Catalysis and Reaction Engineering Practice Award from the American Institute of Chemical Engineers, the 2001 International Precious Metal Institute (IPMI) Award for Outstanding Contributions in the field of precious metal catalysis and the 1998 Cross Canada Lectureship Award sponsored by the Canadian Catalysis Society.