

John J. Mooney

BS in Chemistry, Seton Hall University – 1955

MS in Chemical Engineering, Newark College of Engineering, - 1960

MBA in Marketing, Fairleigh Dickenson University – 1991



Environmental and Energy Technology and Policy Institute

President and Founder. August 2002.

Engelhard Corporation – 42 years.

For 36 years in R&D, marketing and sales of the catalytic converters for automobiles, light and heavy-duty trucks (on and off-road), motorcycles, and small engines used for chainsaws and lawn and garden equipment. Former Technical Director of auto exhaust catalyst research and development.

Career: Led the application team for purification of hydrogen utilizing hydrogen palladium diffusion membrane technology. Designed rugged automatic portable equipment which by catalytic dissociation of ammonia provided a high hydrogen mixture to fill U.S. Air Force weather balloons in extreme environments. Designed the first VOC destruction catalyst system utilizing the Engelhard unitary ceramic catalyst body. Designed, with Carl Keith, the first successful diesel oxidation catalyst and applied it to a stationary diesel generation set at an Ohio Bell Telephone site. Designed and developed unique automatic process system for production of oil-drop alumina spherical supports. Converted several other new R&D catalyst making designs to production processes. Worked with Ford Science Laboratory in their assessment of the unique Engelhard PTX unitary ceramic exhaust gas purifier (an oxidation catalyst) in several laboratory and fleet studies. Worked with 43 universities in the Clean Air Car Race of 1970 – this event showed to Congress that the catalytic converter was practical. Sold the PTX exhaust gas purifier concept to the entire world automobile industry. Developed the PTX into a rugged trouble free system. Carl Keith and I knew of the potential for a three-way catalyst and informed that auto companies of the potential. That opportunity came when Volvo invited us to work with them to develop the system. Our invention of the 3-way catalyst ensued. Developed the first catalyst systems for wall-flow diesel particulate filters. Worked to commercialize catalytic combustion applied to industrial gas turbine without producing thermal NOx. Developed catalysts for alternate fuels. Developed catalyst systems for small engines including hand held 2-stroke engines.

15 US Patents. Co-inventor of the three-way catalyst (TWC) which is now used by all gasoline fueled passenger cars and light duty vehicles in North America, Europe, Japan and other industrial countries.

Over 70 Publications.

Professional Recognition:

- Fellow - Society of Automotive Engineers (SAE) -1989 – first SAE recognition of exhaust emission control
- American Institute of Chemical Engineers Award for Innovation. Arthur Dehon Little Award of 1999
- Recipient – Clean Air Award – Presented at the US Capital Building by the Manufacturers of Emission Controls Association, 2000
- Laureate – Walter Ahlstrom Prize 2001 – Awarded by Finnish Academies of Technology. Received (along with Carl D. Keith) for invention and commercialization of the three-way catalytic converter. The Ahlstrom Prize is awarded in recognition of significant technological achievements which enable, or will enable, widely applicable industrial advances in the use of energy, in the utilization of raw materials, or in minimizing detrimental environmental impacts. The development may represent new breakthroughs in equipment design or improved processes. Primary consideration will be given to engineering achievements that have led to important benefits in industry to the well-being of society.

- Laureate – National Medal of Technology 2002 (team award with Carl D. Keith). To be presented by President George W. Bush and Secretary of Commerce Donald L. Evans

Recent accomplishments:

- Developed a catalytic converter for small 2-stroke engines
- Convinced China and then India to 'switch' to 100% unleaded rather than 'phase-out'

Other:

President, Manufacturers of Emission Controls Association (MECA), 1999 through 2002 and on the Board of Directors for 17 years.

Married, wife Claire - 49 years, 5 children John, Marybeth, Noreen, Kathleen, Elizabeth and 14 grandchildren.

*Larger Photo*