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Education

Ph.D. 1980	Iowa State University, Ames, IA	Organic Chemistry
B.S. 1975	Calvin College, Grand Rapids, MI	Chemistry

Professional Interests and Activities

Dr. Hoekman is a Research Professor within the Division of Atmospheric Sciences at the Desert Research Institute (DRI). DRI is a statewide division of the Nevada System of Higher Education (NSHE) that pursues basic and applied environmental research on local, national, and international scales. His professional interests include environmental impacts of energy production, distribution, and use; development of renewable and sustainable energy systems; air quality impacts of vehicle emissions; and impacts of advanced-technology fuels and vehicles on emissions and energy use. He is also interested in the interface between politics and environmental science, particularly in the areas of energy policy, greenhouse gases, and climate change.

In addition to his personal professional activities, Dr. Hoekman has served DRI by coordinating and promoting the Institution's R&D portfolio in the field of renewable energy. He has led the effort to establish a Renewable Energy Center (REC) at DRI, and continues to provide leadership in this area. For further information about the DRI-REC, please refer to its website at <http://www.dri.edu/rec>.

Another area where Dr. Hoekman has provided leadership for DRI involves the identification, protection, and licensing of intellectual property (IP) developed at the Institute. Dr. Hoekman was instrumental in the establishment of a joint Technology Transfer Office (TTO) between DRI and the University of Nevada, Reno (UNR) in 2004. From its inception, until 2009, Dr. Hoekman served as DRI's Liaison to the TTO, and oversaw the activities of this office on behalf of DRI.

Dr. Hoekman is also active in the scientific academic and business communities. He serves as a reviewer for many science and engineering journals, is a member of several professional societies, has assisted in organizing scientific conferences, and contributes to the mentoring and advisement of graduate students at the University of Nevada in Reno. Currently, he serves on the Technical Advisory Committee for the Nevada Institute for Renewable Energy Commercialization (NIREC), a non-profit organization whose mission is to identify promising renewable energy technologies, and develop them to the point of commercialization.

From 2001 to 2007, Dr. Hoekman served as Executive Director of DRI's Division of Atmospheric Sciences (DAS). DAS consists of approximately 50 research faculty, along with 70 technologists, graduate students, post-docs, and other support staff. The Division conducts fundamental and applied research around the world on topics pertaining to emissions, renewable energy, air pollution, meteorology, climatology, aerosol chemistry and physics, and other areas related to atmospheric science. DAS also serves as the institutional home for the Western Regional Climate Center, one of six NOAA-funded regional climate centers in the U.S. As Director, Dr. Hoekman was responsible for all personnel, financial, organizational, and professional activities of

Divisional operations. The Division's scientific work is sponsored by over 100 federal, state, local, and private organizations that provide approximately \$14 million per year in research grants and contracts. For more information about the Division and its activities, please refer to its web site at <http://www.das.dri.edu>.

Prior to joining DRI in 2001, Dr. Hoekman spent over 20 years at Chevron, where his work focused on transportation fuels and their impacts on motor vehicle emissions and air quality. Experimental work included detailed characterization of exhaust emissions compositions from gasoline-, diesel-, and alcohol-fueled vehicles. Laboratory studies were conducted to investigate how changes in fuel formulation could reduce vehicle emissions and improve ambient air quality. He has served on several technical committees representing the American Petroleum Institute (API), the Western States Petroleum Association (WSPA) the Coordinating Research Council (CRC) and other industry organizations interested in fuels, emissions, atmospheric chemistry and air quality.

Dr. Hoekman also has experience in regulatory affairs pertaining to vehicles, fuels, emissions, air quality, and health effects. He has served in technical advisory roles to EPA and was a member of the California Air Resources Board (CARB) Research Screening Committee for five years. He served as a member of the Health Effects Institute's (HEI) Special Committee on Emerging Technologies from 2001 through 2007.

Professional Experience

2007 – Present	Research Professor, Division of Atmospheric Sciences, Desert Research Institute, Reno, NV
2001 – 2007	Executive Director, Division of Atmospheric Sciences, Desert Research Institute, Reno and Las Vegas, NV
1997 – 2001	Senior Staff Scientist, Chevron Products Co., San Francisco and San Ramon, CA
1990 – 1996	Staff Scientist and Senior Staff Scientist, Chevron Research and Technology Company, Richmond, CA
1980 – 1989	Research Chemist and Senior Research Chemist, Chevron Research and Technology Company, Richmond, CA

Professional Memberships

- American Association for the Advancement of Science (AAAS)
- American Chemical Society (ACS)
- Air and Waste Management Association (AWMA)
- Society of Automotive Engineers (SAE)

Awards/Honors

- Chevron Chairman's Award (1984) – Presented in recognition of diesel emissions research
- Horning Memorial Award (1985) – Presented by the Society of Automotive Engineers
- Arch T. Colwell Merit Award (1985) – Presented by the Society of Automotive Engineers

- Society of Automotive Engineer's Award for Excellence in Oral Presentation (1993 and 1995)
- Recognition of Appreciation from the California Air Resources Board (2001)

Publications

- Hoekman, S.K., A.W. Gertler, A. Broch, C. Robbins, and M. Natarajan (2009). Biodistillate Transportation Fuels 1 – Production and Properties. Soc. Auto. Eng. Paper No. 2009-01-2766.
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- Hoekman, S.K., R.S. MacArthur, M. Naylor and J.A. Rutherford (1998). RVP Reduction for Control of Wintertime CO. Soc. Auto. Eng. Paper No. 981373.
- Lanning, L.A., W.L. Clark, W.O. Siegl, S.K. Hoekman, R.M. Stanley and W.F. Biller (1997). CRC Hydrocarbon Emissions Analysis Round Robin Test Program, Phase II. Soc. Auto. Eng. Paper No. 971608.
- Hoekman, S.K., J. Freel and R.S. MacArthur (1996). Reduced-RVP Gasoline – An Attractive Alternative to RFG. Soc. Auto. Eng. Paper No. 961281.
- Hoekman, S.K., R.M. Stanley, W.L. Clark, W.O. Siegl, A.M. Schlenker and W.F. Biller (1995). CRC Speciated Hydrocarbon Emissions Analysis Round Robin Test Program. Soc. Auto. Eng. Paper No. 950780.
- Hoekman, S.K. and T.E. Jensen (1993). Methanol Vehicle Emissions Round Robin Test Program. Soc. Auto. Eng. Paper No. 932773.
- Hoekman, S.K. (1993). Improved Gas Chromatography Procedure for Speciated Hydrocarbon Measurements of Vehicle Emissions. *J. Chromatog.*, 639, 239-253.
- Hoekman, S.K. (1992). Speciated Measurements and Calculated Reactivities of Vehicle Exhaust Emissions from Conventional and Reformulated Gasolines. *Environ. Sci. Technol.* 26, 1206-1216.
- Croes, B.E., S.K. Hoekman and A. Guerrero (1991). Ozone-Forming Potential of Emissions from Lower Aromatic Content Gasolines. *Air and Waste Management Association Paper No.* 91-107.8.
- Gething, J.A., S.K. Hoekman, A.R. Guerrero and J.M. Lyons (1990). The Effect of Gasoline Aromatics Content on Exhaust Emissions: A Cooperative Test Program. Soc. Auto. Eng. Paper No. 902073.

- Eberhard, G.A., M. Ansari and S.K. Hoekman (1990). Emissions and Fuel Economy Tests of a Methanol Bus with a 1988 DDC Engine. Soc. Auto. Eng. Paper No. 900342.
- Beyaert, B.O., S.K. Hoekman, A.J. Jessel, J.S. Welstand, R.D. White and J.E. Woycheese (1989). An Overview of Methanol Fuel Environmental, Health, and Safety Issues. Summer Meeting of American Institute of Chemical Engineers, Philadelphia, PA, August 22, 1989.
- Eberhard, G.A., M. Ansari and S.K. Hoekman (1989). Emissions and Fuel Economy Test Results for Methanol- and Diesel-Fueled Buses. Air and Waste Management Association Paper 89-9.4.
- Horn, J.C. and S. K. Hoekman (1989). Methanol-Fueled Light-Duty Vehicle Exhaust Emissions. Air and Waste Management Association Paper No. 89-9.3.
- Hoekman, S.K. and M.C. Ingham (1987). Measurement of PAH and Nitro-PAH from a Heavy-Duty Diesel Engine. Air Pollution Control Association Paper No. 87-1.4.
- Wall, J.C. and S.K. Hoekman (1984). Fuel Composition Effects on Heavy-Duty Diesel Particulate Emissions. Soc. Auto. Eng. Paper No. 841364.
- Seizinger, D.E. and S.K. Hoekman (1984). Aromatic Measurements of Diesel Fuel - A CRC Round-Robin Study. Soc. Auto. Eng. Paper No. 841363.
- Barton, T.J., Hoekman, S.K., Burns, S.A. (1982). Comments on the Formation of Silanones in the Thermolysis of Hydrosilyl Peroxides. *Organometallics* 1, 721-725.
- Barton, T.J., Hoekman, S.K. (1980). Bis(trimethylsilyl)diazomethane, Trimethylsilyl trimethylgermyl diazomethane, and Bis(trimethylgermyl)diazomethane – Synthesis and Chemistry of Quantitative Silene and Germene Precursors. *J. Amer. Chem. Soc.* 102, 1584-1591.
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