

The Department of Mechanical Engineering presents:

Jorn Herner, Ph.D.

Branch Chief of Emission Mitigation and Research Planning
in the Research Division, California Air Resources Board

Friday, February 24, 2012

11:10AM-12:00PM

Bourns Hall A265

Emissions Research and Research Planning at ARB

Abstract

The State of California has made great gains in air quality over the last 40 years, but the majority of Californian's still live with poor air quality. Additionally the State has passed legislation that requires reductions in greenhouse gas emissions. To solve these issues major reductions of traditional and greenhouse gas pollutants are needed from the cars and trucks in the state. New low carbon fuels, new control and combustion technologies are being introduced to meet these demands. It is important to continue to fully understand how mobile source emission change as this happens. The presentation will focus on how emissions have evolved in both the light duty and heavy duty vehicle fleet, with special attention to new emission control technologies to control particulate matter and smog forming gases from diesel engines, and the relative toxicity of emissions from other sources. In addition to discussing research results the presentation will touch shortly on what types of research the California Air Resources Board needs for its current programs and the extramural research planning process.

Biography

Jorn Herner has worked for the California Air Resources Board for the past 7 years and is currently the branch chief of Emission Mitigation and Research Planning in the Research Division. In this position he oversees the agency's extramural research program, directs the in-house vehicle emissions research, and implementation of several regulations to reduce the emission of high global warming potential greenhouse gases. His research interest are mainly in mobile source tailpipe emissions but also include verification of greenhouse gas inventories through direct ambient measurements.

Dr. Herner has a B.A. in Mathematics and M.S. in Civil and Environmental Engineering from UC Berkeley, and a Ph.D. in Civil and Environmental Engineering from UC Davis. His Ph.D. dissertation characterized for fate and transport of particulate matter in Central California during wintertime stagnation periods.

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