FREDERICK W. LURMANN
Manager of Exposure Assessment Studies and President Emeritus

Sonoma Technology, Inc.

Educational Background

M.S., Mechanical and Environmental Engineering, University of California, Santa Barbara
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Professional Experience

Mr. Lurmann is Manager of Exposure Assessment Studies at STI. He has 27 years of experience in air quality and exposure analysis. He has designed regional air quality studies, developed air quality simulation models for ozone and PM, and evaluated alternate emission control strategies. Mr. Lurmann designed and managed the exposure assessments of numerous epidemiologic studies including the 10-year Southern California Children's Health Study (CHS). He developed human exposure models for both criteria air pollutants and air toxics for application to the general population and to cohorts with individual-level time-activity and housing data. Mr. Lurmann has co-authored 30 peer-reviewed articles and is a member of numerous state and local air pollution agency advisory committees.

Mr. Lurmann is currently co-directing exposure assessments for a National Institute of Environmental Heath Sciences (NIEHS)-sponsored study of genetics, air pollution, and respiratory effects in children and young adults, which includes investigation of asthma incidence in 6,000 children and pulmonary function in young adults from the CHS. He is leading the effort to characterize the lifetime exposures of a cohort of southern California college students to criteria pollutants in an NIEHS-sponsored study of chronic air pollution effects. For the California Air Resources Board, he is managing exposure assessment for the evaluation of health benefits associated with 20 years of improving ambient air quality. He is co-investigator for a study of exposure to combustion-related pollutants ($PM_{2.5}$, ultrafine PM, and NO_x) and health effects of children living in areas near major shipping ports in California. In addition, he directs the exposure data analysis and modeling for the Fresno Asthmatic Children's Environment Study (FACES), which involves assessing daily exposure of 300 subjects to ozone, NO, NO_2, $PM_{2.5}$, PM_{10}, sulfate, nitrate, elemental carbon, and organics including polycyclic aromatic hydrocarbons, endotoxin, pollen grains, and fungal spores.

A key focus of Mr. Lurmann's current research is exposure of susceptible populations to mobile source-related pollutants. He is currently leading data collection, data analyses, and modeling efforts to investigate the exposures of children and young adults to NO/NO_2, CO, ultrafine PM, $PM_{2.5}$, $PM_{2.5-10}$, elemental carbon, and polycyclic aromatic hydrocarbons and their associations with local-scale traffic activity and emissions characteristics. The research is designed to identify the range of exposure to traffic-related pollutants within urban communities, including local hot-spots, which feed into epidemiologic analyses of health risks associated with these exposures.

Memberships

Air & Waste Management Association
International Society for Exposure Analysis
American Association for Aerosol Research
American Chemical Society
American Geophysical Union

See STI's website, http://www.sonomatech.com/resumes.htm, for a list of publications.