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Education

Ph.D., Environmental Systems Engineering, Clemson University, 1976

M.S., Environmental Systems Engineering, Clemson University, 1972

B.S., Electrical and Computer Engineering, Clemson University, 1971

Professional Background

Distinguished Professor, Professor, Associate Professor and Assistant Professor, Civil and Environmental Engineering Department, UCLA, 1977 to present

Research Engineer and Project Manager, Amoco Oil Company, Naperville, IL, 1975 to 1977.

Selected Awards / Affiliations

Board Certified Environmental Engineer, American Academy of Environmental Engineers.

Fellow (1997), Huber Prize (1989) American Society of Civil Engineers, Harrison Prescott Eddy Award (1992) Water Environment Federation, Dow Chemical Company Environmental Care Award (1995), Innovation in Research (2002, 2005), California Regional Water Quality Control Board, AEESP Fredrick Pohland Research Medal (2013)

Selected Project Experience (total grants and contract awards is more than \$12.5 million)

- NSF-ERC for the Control of Hazardous Substances, Hazardous Wastewater Treatment, Completed 1994
- DOE-LLNL, Mason & Hanger-Pantex-DOE, RDX-HMX treatment concepts, including regeneration of spent activated carbon, six projects extending from 1993 to 1997 California Dept of Transportation, Highway Stormwater Management, including toxicity and best management practices, six projects extending from 1999 to 2007, completed in 2007
- Southern California Edison-California Energy Commission, Development of methods for measuring and auditing energy consumption at wastewater treatment plants, started in 2004 and continuing to 2014.

Selected Publications (168 total journal publications)

1. Jiang, P, H-T Chen, R. W. Babcock and M.K. Stenstrom, "Modeling Ozone Mass Transfer in Reclaimed Wastewater," *Wat. Env. Research*, **81**(1), pp 57-68, 2009.
2. Ma, J-S, J-H Kang, M. Kayhanian and M.K. Stenstrom, "Sampling Issues in Urban Runoff Monitoring Programs: Composite versus Grab," *J. of Env. Engr. ASCE*, **135**(3), pp 118-127, 2009.
3. Park, M-H, and M. Stenstrom, and S. Pincetl "Water Quality Improvement Policies Lessons Learned from the Implementation of Proposition O in Los Angeles, CA," *Environmental Management*, **43**(3), pp 514-522, 2009.
4. Lau, S-L, Y. Han, J-H Kang, M. Kayhanian and M.K. Stenstrom, "Characteristics of Highway Stormwater Runoff in Los Angeles: Metals and PAHs." *Wat. Env. Research*, **81**(3), pp 308-318, 2009.

5. Singhirunnusorn, W. and M.K. Stenstrom, "Appropriate wastewater treatment systems for development countries: criteria and indicator assessment in Thailand," *Wat. Sci. & Tech.* **59**(9), pp 1873-1883, 2009.
6. Park, M-H, X. Swamikannu and M.K. Stenstrom, "Accuracy and Precision of the Volume-Concentration Method for Urban Stormwater Modeling," *Wat. Research*, **43**(11), pp 2773-2786, 2009.
7. Kang, J-H, S.R. Debats, and M.K. Stenstrom, "Stormwater Management Using Street Sweeping," *J. of Env. Engr. ASCE*, **135**(7), pp 479-489, 2009.
8. Leu, S-Y, R.W. Babcock Jr., C.J. Tzeng, and M.K. Stenstrom, "Modeling the Performance of Hazardous Wastes Removal in Bioaugmented Activated Sludge Processes," *Wat. Env. Research*, **81**(11), pp 2309-2319, 2009.
9. Leu, S-Y, D. Rosso, L.E. Larson and M.K. Stenstrom, "Real-Time Monitoring Aeration Efficiency in the Activated Sludge Process and Methods to Reduce Energy Consumption," *Wat. Env. Research*, **81**(12), pp 2471-2481, 2009.
10. Leu, S-Y and M.K. Stenstrom, "Bioaugmentation to Improve Nitrification in Wastewater Treatment," *Wat. Env. Research*, **82**(6), pp 524-535, 2010.
11. Leu, S-Y, J. A. Libra and M.K. Stenstrom, "Monitoring Off-gas O₂/CO₂ to Predict Nitrification Performance in Activated Sludge Processes," *Wat. Research*, **44**(11) pp 3434-3444, 2010.
12. Singhirunnusorn, W. and M.K. Stenstrom, "A Critical Analysis of Economic Factors for Diverse Wastewater Treatment Processes: Case Studies in Thailand," *Sustain. Environ. Res.*, **20**(4), pp 263-268, 2010.
13. Jiang, P., Tzeng, C-J, Hsieh, C.C., and M.K. Stenstrom, "Modeling VOC Emissions in the High Purity Oxygen Activated Sludge Process," *J. of Env. Engr. ASCE* **136**(11) pp 1189-1196, 2010.
14. Park, M-H, Ridgeway, I.K., Swamikannu, X., and M. K. Stenstrom, "Evaluation of Stormwater BMPs for Implementing Industrial Stormwater Permitting Strategy." *Wat. Sci. & Tech*, **62**(11), pp 2558-2563, 2010.
15. Curren, J., S. Bush, S. Ha, M.K. Stenstrom, S.L Lau, and I. H. Suffet, "Identification of sub-watershed sources for chlorinated pesticides and polychlorinated biphenyls in the Ballona Creek watershed," *Sci. Total Env.*, **409**(13), pp 2525-2533, 2011.
16. Vasquez, V.R., J. Curren, S.-L. Lau, M.K. Stenstrom, and I.H. Suffet, "A Field Studies and Modeling Approach to Support Organochlorine Pesticide and PCB Total Maximum Daily Load Calculations: Case Study for Echo Park Lake, Los Angeles, CA," *Sci. Total Env.*, **409**(19), pp 4010-4015, 2011.
17. Chan, L.C., S.Y. Leu, D. Rosso, and M.K. Stenstrom, "The Relationship between Mixed-Liquor Particle Size and Solids Retention Time in the Activated Sludge Process," *Wat. Env. Research*, **83**(12), pp 2178-2186, 2011.
18. Leu, S.Y., L.C. Chan, and M.K. Stenstrom, "Toward Long SRT of Activated Sludge Processes: Benefits in Energy Saving, Effluent Quality, and Stability," *Wat. Env. Research*, **84**(1) 42-53, 2012.
19. Gil, K., Rho, H., Kim, D., and M.K. Stenstrom, "Comparison of Bio-P module and the Modified Bio-P Module in the Step-Feed Biological Nutrient Removal Process," *Env. Earth Sci.*, **65**(3) 929-936, 2012.
20. Jiang, P. and M.K. Stenstrom, "Oxygen Transfer Parameter Estimation: Impact of Methodology," *J. of Env. Engr. ASCE*, **138**(2) pp 137-142, 2012.
21. Rosso, D, L-M Jiang, D.M. Hayden, P. Pitt, C.S. Hocking, S. Murphy and M.K. Stenstrom, "Towards More Accurate Design and Specification of Aeration Systems Using On-site Column Testing," *Wat. Sci. & Tech*, **66**(3), pp 627-634, 2012.
22. Naik, K.S. and M.K. Stenstrom, "Evidence of the Influence of Wastewater Treatment on Improved Public Health," *Wat. Sci. & Tech*, **66**(3), 644-652, 2012.
23. Rosso, D., L-M Jiang, P. Pitt, C.S. Hocking, M.K. Stenstrom, S. Murthy, and D.M. Hayden, J. Zhong, D.H. Coller, A. Y. Kim and H. Xu. "Methodology for *In situ* Column Testing to Improve Accuracy during Design and Specification of Aeration Systems," *J. of Env. Engr, ASCE*, **139**(4), 530-537, 2013.

Student Advising

Major professor of 47 Civil and Environmental Engineering and 16 Environmental Science and Engineering students to the completion of their doctoral degrees. Subjects range from municipal and industrial water and wastewater treatment, stormwater management, and the impacts of various policy issues on environmental engineering.