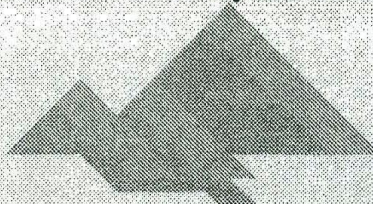


American University of Armenia



COLLEGE OF ENGINEERING
SEMINAR SERIES

BIOFILTRATION FOR AIR POLLUTION CONTROL

by

Joseph S. Devinny

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Abstract

Contaminated air can be treated biologically. Air is passed through a damp porous medium which supports a vigorous culture of microorganisms. Contaminants are transferred from the air to the water, and adsorbed on the solids. The dissolved or adsorbed contaminants are degraded by the microorganisms.

The porous medium may be compost, granular activated carbon, or other granular matter. The suitability of the medium for microorganism growth, its ability to adsorb contaminants, and its durability are important factors for biofilter design.

Research at USC has developed a model describing important phenomena controlling the effectiveness of biofilters. Relative treatment success for compounds in gasoline was explained. For treating ethanol vapors, compost provides a better environment for the microorganisms and activated carbon provides better adsorption. Activated carbon is more effective overall.

About the Speaker

Dr. Joseph S. Devinny is Associate Professor of Civil and Environmental Engineering at the University of Southern California, in Los Angeles. He has done research on the impacts of pollution on marine ecosystems, bioremediation of petroleum-contaminated soils, and biological treatment of air discharges. At USC he teaches Ecology for Environmental Engineers, Chemistry and Biology of Natural Waters, and Microbiology for Environmental Engineers. He is currently Visiting Associate Professor at AUA, teaching Environmental Management.

Date: Thursday, June 23, 1994
Time: 3:30-5:00p.m.
Place: Auditorium, 5th floor, AUA, 40 Marshall
Baghrmian Avenue

The seminar is open to the public free of charge.