

Water Research Webinar Series

A bimonthly webinar series focused on EPA's water research

Water Reuse for Agricultural Purposes

Wednesday, July 29, 2020 from 2:00 to 3:00 pm ET

Registration: register.gotowebinar.com/register/3390960239038933515



A certificate of
attendance will be
offered for
this webinar

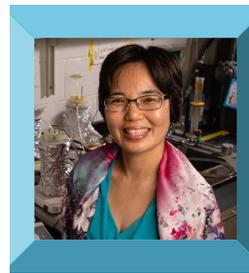
Inactivation of RNA Viruses by Solar and UV Irradiation for Agricultural Reuse

Detention ponds using sunlight/solar energy and high energy ultraviolet (UVC) are two options for wastewater disinfection that have the ability to inactivate enteric viruses, which are common contaminants in wastewater and surface water. However, both solar and UVC disinfection of viruses have been hindered by incomplete knowledge of virus disinfection mechanisms. This presentation will provide information on the effectiveness of both solar and UVC on waterborne virus inactivation and will offer suggested design guidelines for utilities and communities to consider for the safe reuse or release of treated wastewater.

Emerging Contaminants in Agro-Food Systems

Municipal treated wastewater and biosolids are historically under-utilized resources, but are finding increasing uses in agriculture. Treated wastewater and biosolids have numerous contaminants, such as pharmaceuticals and personal care products (PPCPs). With funding from EPA and the U.S. Department of Agriculture, systematic research has been conducted to understand the likelihood for food plants to accumulate common PPCPs and to estimate human health risks if consumed. This presentation will provide an overview of current knowledge and outline a bottom-up approach as the path forward to better address this concern.

Presented by Helen Nguyen, Ph.D.



Dr. Nguyen is a professor of environmental engineering and a faculty affiliate with the Institute for Genomic Biology at the University of Illinois at Urbana-Champaign. Her research focuses on waterborne pathogens for global water and food safety, with several projects on human resilience to waterborne infectious disease outbreak related to extreme natural events. Dr. Nguyen holds a Ph.D. in environmental engineering from Johns Hopkins University.

Presented by Jay Gan, Ph.D.



Dr. Gan is a distinguished professor of environmental chemistry in the Department of Environmental Sciences at the University of California, Riverside. His research has centered on analysis, environmental fate processes, risk assessment, and mitigation of man-made chemicals, including pharmaceuticals, PPCPs, and other emerging contaminants. Dr. Gan holds a Ph.D. in environmental chemistry from Zhejiang University.



EPA awarded grants to five institutions for research in human and ecological health impacts associated with water reuse and conservation practices. The research being presented for this webinar was done under two of the awarded grants. For additional information on these and other research grants, visit EPA's website at epa.gov/research-grants/water-research-grants.

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