



Effective removal of heavy metals for a clean water supply in the urban water infrastructure

ABSTRACT

Drinking water treatment, from source to tap, encompasses a variety of treatment technologies to provide clean water. In the United States, centralized drinking water facilities ensure high drinking water quality standards. But is tap water safe to drink? With multiples sources of contaminants existing in the drinking water distribution and supply, we cannot eliminate the possibility of exposure to all contaminants. Moreover, in the next five years, increasingly stringent regulations around contaminants are likely to drive water utilities out of compliance. This incentivizes the need for material innovation and technological advancement in the water industry. Through this presentation I will discuss the fate and transport of heavy metals like lead and hexavalent chromium in the distribution and supply and the ways in which we can effectively remove them by using inexpensive novel materials.

BIOGRAPHY

I am a postdoctoral research fellow at the Department of Civil and Environmental Engineering at UC Berkeley. I earned my Ph.D. from the Department of Energy, Environmental and Chemical Engineering at Washington University in St. Louis. I am pursuing research to improve drinking water treatment by conducting research at the intersection of water quality engineering and materials chemistry. I am interested in understanding the fate and transport of heavy metals in built environments. In my postdoctoral research, I am working on innovative and inexpensive material to remove hexavalent chromium from groundwater. Previously I focused on assessing the role of water chemistry on the release of lead and other metals from lead bearing plumbing in drinking water during water supply and augmentation.

GRADUATE SEMINAR

PRESENTER:

Dr. Anushka Mishra

Postdoctoral research fellow
Department of Civil and Environmental
Engineering
UC Berkeley

DATE:

Friday
March 22, 2024



TIME:

4:00-5:00 PM



LOCATION:

Via Zoom

LINK TO ACCESS MEETING:

<https://utsa.zoom.us/j/92852660314?pwd=TF1yeTcyZlJkNDNPWWQwUTNPMnVMZz09>