“Per- and Polyfluoroalkyl Substances (PFAS): Analytical gaps, treatment technologies and critical areas for improvements”

About the Seminar

PFAS are active ingredients in aqueous film-forming foams (AFFF), extensively used for firefighting at military bases and airports worldwide. To date, no single analytical technique provides a complete accounting of organofluoride content in AFFF-derived PFAS mixtures. In the present talk, current and upcoming targeted quantification, oxidation-based assays, and total fluorine analyses will be discussed to highlight critical areas for future analytical improvements for characterizing AFFF contamination. Treatment technologies for the removal of multiple long- and short-chained carboxylic, sulfonic, precursor and emerging PFAS from natural waters will also be discussed with a particular focus on the applicability of ion exchange resins, activated carbon and alternative adsorbents.

About Dr. Fuhar Dixit

Fuhar is currently a postdoctoral scholar at the University of California Berkeley investigating practical solutions to address the global challenge of drinking water scarcity. Fuhar’s doctoral research focused on the use of anionic ion exchange resins to target toxic per- and polyfluoroalkyl substances (PFAS) and disinfection by-products (DBPs), two of the most common and harmful forms of contamination. In particular, he is examining the fate and transport of PFAS and its precursor compounds by augmenting the total oxidizable precursor (TOP) assay. In addition to his research contributions towards the field of environmental remediation, Fuhar strives towards the protection of wildlife and natural resources.