

Occurrence and Detection of Perfluorooctanoic Acid in Various Environmental Matrices

Sudarshan Kurwadkar, Assistant Professor of Civil and Environmental Engineering
California State University – Fullerton

Perfluoroalkyl substances (PFAS) such as perfluorooctanoic acid (PFOA) are an integral part of various consumer products (cookware's, clothing, fabrics, furniture and packaging materials). Lately these compounds have been categorized as emerging organic pollutants (EOPs) due to recent reports of toxicity, persistence in the environment and bioaccumulation potential. The United States Environmental Protection Agency's health advisory established the drinking water level concentration threshold of 70 ng/L. It means that concentration above this threshold will likely result in adverse effect to human health. Given the magnitude of usages in various household and consumer products it is anticipated that they would ubiquitous in the environment. The proposed study on PFOAs detection and occurrence essentially aims to address these issues. The proposed research work includes method development for detection of PFOA, possibly fate studies on PFOAs in the environment.