Environmental Science Graduate Program Seminar Series

Treatment of PFAS in Ion-Exchange Brine via Ultrasound

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Smith Laboratory, Room 3150

Abstract

Per- and polyfluoroalkyl substances (PFAS) are synthetically made compounds that have been utilized in a wide variety of consumer products and industrial applications since the 1950s. PFAS are recalcitrant to degradation under most environmental conditions and have been associated with potential negative health impacts. Current methods, such as ion-exchange, can remove PFAS from media. However, these methods do not degrade PFAS but rather result in a PFAS laden waste stream that must be managed. Due to widespread use of PFAS and their persistent nature, an efficient means of degrading these chemicals must be developed**.** Sonochemical methods have been shown to be a promising technique in degrading pollutants due to its simplicity in use and lack of harmful end products. Further, sonochemistry has been identified as a promising technique in the degradation of PFAS in media. The purpose of this study is to utilize sonochemistry to degrade PFAS present in an ion-exchange waste stream.