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## Treatment of “forever chemicals” in wastewater with electron beams

*Wednesday, 10 May 2023 09:00 (30 minutes)*

Electron beam irradiation is a method that has shown a good potential to reduce several pollutants in wastewater. One of the main challenges towards wider adoption of this method is the need for compact, reliable, cost-effective, high-power accelerators. Jefferson Lab is working on the design and prototyping of accelerator components, based on superconducting radio-frequency (SRF) technology, aiming at accelerators for industrial applications. The project aimed at designing, procuring, installing, and commissioning a beamline at the Upgraded Injector Test Facility (UITF) accelerator to allow electron-beam irradiation studies of different materials, beginning with wastewater. After successful commissioning, the beamline was used to irradiate wastewater samples with different concentrations of 1,4-dioxane.

### Funding Agency

### Footnotes

### I have read and accept the Privacy Policy Statement

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