

AVAILABLE FOR LICENSING-Jefferson Lab Accelerator Technology for Environmental Remediation Applications

A new technology developed at Jefferson Lab offers the potential to address environmental challenges including the storage and treatment of oil sands process water, hydraulic fracturing process fluids, flue-gas, fracking overflow, wastewater treatment, coal-fired power plant effluent, environmental remediation, and sterilization.

JSA developed a normal-conducting (copper) radio-frequency accelerating structure as part of an upgrade to the CEBAF injector system incorporating novel concepts that led to the grant of a patent. The design has been further refined for potential industrial application of high-power electron beams (particle accelerators producing high-power, low-energy electron beams are commonly used in industry in the production of plastics and rubber and for sterilization). The modified design incorporates technical improvements and an innovative radio-frequency power source concept. The JSA design is unique and highly competitive providing a very compact footprint, relatively low cost, and offering a high electrical power to electron-beam-power conversion efficiency. The design is appropriately rugged and simple, both essential requirements for industrial applications of accelerator technology.

This licensing opportunity is scheduled to close on February 28, 2019. For more information, contact dowd@jlab.org.