

Abstract Submitted  
for the TSF21 Meeting of  
The American Physical Society

**Filtering Molten Salt with the Filter Media Test System<sup>1</sup>**

BERTHA SANCHEZ, Abilene Christian University, NEXT NUCLEAR ENERGY EXPERIMENTAL TESTING COLLABORATION — The mission of the Nuclear Energy Experimental Testing Laboratory (NEXT) is to provide solutions to the world's crucial problems of energy, water, and cancer. These problems will be solved by advancing molten salt reactor technology. Multiple projects within NEXT are all leading towards the development of a molten salt research reactor. One part of running a molten salt reactor is the ability to filter out corrosion particles and insoluble fission products that otherwise might be deposited and build up in the reactor system. The Filter Media Test System is a design for testing filter media for molten-fluoride salt. This presentation addresses the process of preparing the filter test apparatus, loading it with salt and flowing the salt through a filter. Hydraulic data for the system is provided and compared to system data with water. Salt samplings are discussed, as well as future directions and applications for this work.

<sup>1</sup>This research is being performed using funding received from the DOE Office of Nuclear Energy's Nuclear Energy University Program.

Bertha Sanchez  
Abilene Christian University

Date submitted: 10 Sep 2021

Electronic form version 1.4