



Establishment of a Salt Characterization Facility at UNR

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Program: General Scientific
Infrastructure Support

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ABSTRACT:

This proposal requests funds to commission an inert atmosphere salt characterization facility to determine the composition of halide salts. Specifically, we are requesting a combustion analyzer, a titrator, and a double glovebox. This facility along with existing characterization infrastructure at UNR will allow for complete characterization of the salt composition. It is anticipated that this much-needed facility will improve the quality and repeatability of molten salt research being conducted by various researchers. Up to 33% of the time on the facility will be dedicated for external users. Innovative laboratory modules, implementable in courses at other institutions, will be created showcasing the use of the facility.

Availability of composition/purity of used in experiments will provide high fidelity data for the DOE-NE campaign and ensure that results from various research groups can be assessed by the scientific community. The impact of such infrastructure is immense considering that there is no such infrastructure currently available in the country. Overall, this facility will bring more value to DOE funding by ensuring salt quality data is available for reporting.