

PNNL-SA-166031

# Development of Casting Techniques for d-phase Uranium-Zirconium Alloys

CRADA 524

September 2021

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Lightbridge Corporation

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*operated by*  
BATTELLE  
*for the*  
UNITED STATES DEPARTMENT OF ENERGY  
*under Contract DE-AC05-76RL01830*

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Abstract

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Prepared for  
the U.S. Department of Energy  
under Contract DE-AC05-76RL01830

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## Abstract

Casting of d-phase HALEU  $\text{UZr}_2$  alloy is an early milestone in the fabrication process for Lightbridge Fuel™. The Radiochemical Processing Laboratory at PNNL has been identified as having both the capability and expertise to perform the necessary high temperature casting of samples of Lightbridge's alloy. The necessary equipment, facility licensing, and shipping capabilities for special nuclear material coupled with its expertise in uranium casting techniques makes PNNL uniquely suited to this project.

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