

Additive Manufacturing Of Collimators From Neutron Absorbing Material

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A recent collaboration combining Oak Ridge National Laboratory (ORNL) resources in the fields of Neutron Scattering Science, Engineering, and Additive Manufacturing has resulted in a breakthrough capability to 3D print collimators from neutron absorbing material. The technology will enable production of components incorporating complex geometric features previously impractical or impossible to manufacture. Furthermore, this new additive manufacturing technique provides a new opportunity for scientists and engineers to iteratively optimize collimation, which previously could not be leveraged due to limitations in manufacturing. Neutron Scattering Science at ORNL will now have the capability to produce bespoke collimation for instruments and sample environments, and the possibility to provide experiment specific collimation. Additionally, Neutron Scattering Instrument components other than collimators will be produced by this technique.

Formal Invitation Letter Required

No

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