Abstract Submitted
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Progress in thermal neutron radiography at LENS[1] JACK JENKINS[2], None, LOW ENERGY NEUTRON SOURCE (LENS) AT INDIANA UNIVERSITY COLLABORATION — An end station for thermal neutron radiography and tomography is in operation at the Indiana University LENS facility. Neutrons from proton-induced nuclear reactions in Beryllium are moderated and collimated into a beam which is attenuated by a scanned object on a remotely-controlled rotating table. Neutron signal is then converted to a light signal with a ZnS scintillating screen and recorded in a cooled CCD. The author has performed diagnostics on the radiography hardware and software and has tested the system's capabilities by imaging a stack of high density polyethylene cubes with diverse inlet holes and grooves on an 80/20 aluminum base. The resolution of the radiographs are seen to be less than 1mm and 3D rending software is capable of reconstructing the internal structure of the aluminum.

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None

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