Abstract Submitted for the DNP17 Meeting of The American Physical Society

Status of CsI[Na] at COHERENT BJORN SCHOLZ, University of Chicago, COHERENT COLLABORATION — Sodium-doped cesium iodide is an ideal target for the study of Coherent Elastic Neutrino- Nucleus Scattering (CEvNS) at spallation sources. A 14.6-kg low-background CsI[Na] detector has been exposed to the intense neutrino flux emanating from the SNS target at Oak Ridge National Laboratory. Previous to this deployment, we performed dedicated measurements of steady-state and beam-related backgrounds, as well as calibrations of CsI[Na] response to low- energy nuclear recoils like those expected from CEvNS. The results of this, the first observation of coherent elastic neutrino-nucleus scattering, will be presented.

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