



BILLING CODE 3510-DS-P

DEPARTMENT OF COMMERCE

International Trade Administration

University of Minnesota, et al.;

Notice of Decision on Application

for Duty-Free Entry of Scientific Instruments

This is a decision pursuant to Section 6(c) of the Educational, Scientific, and Cultural Materials Importation Act of 1966 (Pub. L. 89-651, as amended by Pub. L. 106-36; 80 Stat. 897; 15 CFR part 301). Related records can be viewed between 8:30 A.M. and 5:00 P.M. in Room 3720, U.S. Department of Commerce, 14th and Constitution Ave, NW, Washington, D.C.

Docket Number: 19-012. Applicant: University of Minnesota, 116 Union Street SE, Minneapolis, MN 55455. Instrument: Photomultiplier tube. Manufacturer: Hainan Zhanchuang Photonics Technology, China. Intended Use: See notice at 85 FR 3892, January 23, 2020. Comments: None received. Decision: Approved. We know of no instruments of equivalent scientific value to the foreign instruments described

below, for such purposes as this is intended to be used, that was being manufactured in the United States at the time of order.

Reasons: The instrument will be used to study the properties of neutrino oscillation. Neutrinos are very hard to detect and require several thousand tonnes of target material to have any chance of seeing the neutrino interactions. The CHIPS detector is a pilot project which aims to reduce the cost of neutrino experimentation by around a factor of fifty. This is done by reducing the structural engineering and installing the detector in a lake, where students can exploit the buoyancy of the used materials. Photomultipliers are highly sensitive light detectors able to detect light at the single photon level; these will be installed in a large 25 meter diameter cylindrical detector filled with water. This experiment is built employing several physics graduate students and provides work experience for many physics and engineering undergraduates.

Docket Number: 19-013. Applicant: University of Minnesota, 116 Union Street SE, Minneapolis, MN 55455. Instrument: Photomultiplier tube. Manufacturer: Hainan Zhanchuang Photonics Technology, China. Intended Use: See notice at 85 FR 3892, January 23, 2020. Comments: None received. Decision: Approved. We know of no instruments of equivalent scientific value to the foreign instruments described below, for such purposes as this is intended to be used, that was being manufactured in the United States at the time of order.

Reasons: The instrument will be used to study the properties of

neutrino oscillation. Neutrinos are very hard to detect and require several thousand tonnes of target material to have any chance of seeing the neutrino interactions. The CHIPS detector is a pilot project for which aims to reduce the cost of neutrino experimentation by around a factor of fifty. This is done by reducing the structural engineering and installing the detector in a lake, where students can exploit the buoyancy of the used materials. Photomultipliers are highly sensitive light detectors able to detect light at the single photon level; these will be installed in a large 25 meter diameter cylindrical detector filled with water. This experiment is built employing several physics graduate students and provides work experience for many physics and engineering undergraduates.

Dated: February 20, 2020.

Gregory W. Campbell,
Director, Subsidies Enforcement,
Enforcement and Compliance.