

Abstract Submitted  
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**Project 8: Towards cyclotron radiation emission spectroscopy on tritium** MARTIN FERTL, University of Washington, PROJECT 8 COLLABORATION — Project 8 aims to determine the neutrino mass by making a precise measurement of the  $\beta^-$ -decay of molecular tritium ( $Q = 18.6$  keV) using the recently demonstrated the technique of cyclotron radiation emission spectroscopy (CRES). Here we discuss the production of a gas cell that fulfills the stringent requirements for cryogenic operation, safe tritium handling, a non-magnetic design, and a good microwave guide performance. The phased program that allows Project 8 to probe the neutrino mass range accessible using molecular tritium is described. Major financial support by the U.S. Department of Energy, Office of Science, Office of Nuclear Physics to the University of Washington under Award Number DE-FG02-97ER41020 is acknowledged.

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