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Ion Source Tests for the IsoDAR Neutrino Experiment RUBEN GUTIERREZ MARTINEZ, University of California, Los Angeles, ISODAR COL-LABORATION — The Isotope Decay At Rest (IsoDAR) experiment uses a cyclotron to produce an intense electron antineutrino flux from the decay of ⁸Li at rest. It will be paired with the 1 kton Kamioka Liquid Scintillator Antineutrino Detector (KamLAND) to search for antineutrino disappearance at short base lines due to sterile neutrino oscillations. It will also be capable of making a measurement of antineutrino electron scattering. The first component of the cyclotron is an ion source that provides 5 mA of H_2^+ at 60 keV. The characterization of this source took place in June 2013 at Best Cyclotron Systems Inc. The first measurements from these tests will be presented.

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