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Low Energy Electron Capture by Multi-Charged Ions using Merged Beams C.C. HAVENER, R. REJOUB, Physics Division, Oak Ridge National Laboratory — Low energy electron capture cross sections are measured at the ORNL Multi-charged Ion Research Facility (MIRF) using the ion- atom mergedbeams technique. Absolute measurements are performed for multi-charged ions with H(D) and Li from keV/u to meV/u. The ion-atom merged-beams apparatus is being upgraded to take advantage of the higher velocity and higher quality beams produced by the ORNL High Voltage platform. Details of the design and expected first measurements will be presented. Improvements include access to lower energies with better energy resolution for measurements with both H and D. Electron capture measurements with heavy atomic and molecular ions below an eV/u are now possible.

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