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Upgrade of the TITAN EBIT High Voltage Operation MATT FOSTER, TRIUMF, TITAN COLLABORATION — TRIUMFs Ion Trap for Atomic and Nuclear science (TITAN) is a setup dedicated to highly precise mass measurements of short-lived isotopes down to 10ms. TITANs Electron Beam Ion Trap (EBIT) is a charge breeder integrated into the setup to perform in-trap decay spectroscopy of highly charged ions and increase the precision of mass measurements. In its previous configuration TITANs EBIT could not fulfil its maximum design specification due to high voltage safety restrictions, limiting its obtainable charge states. A recently completed upgrade of the high voltage operation that will allow the EBIT to fulfil its design specification and achieve higher charge states for heavier species is undergoing preliminary tests with stable beam. Simulations were performed to optimise the injection and extraction efficiency at high voltage and initial tests have involved using a Ge detector to identify x-rays produced by charge breeding stable ions. Future work comprises exploring electron capture rates of Ne-, He- and H-like charge states of ^{64}Cu and higher masses, which were not previously accessible. The function of the EBIT within the TITAN setup, the work carried out on the upgrade thus far and its scope for future work will be presented.

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