

# MULTICHARGED ION-SURFACE INTERACTION STUDIES AT ORNL WITH DECELERATED BEAMS<sup>1</sup>

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We report on studies of low energy multicharged ion-surface interactions carried out at the ORNL MIRF (Multicharged Ion Research Facility) with recently developed apparatus that implements a UHV floating scattering chamber into which beams can be decelerated to interaction energies as low as a few eV per charge. We present initial results, utilizing a TOF system with a biasable drift tube for charge state analysis, of measurements of backscattered projectile energy loss and charge state distributions of multicharged oxygen, and argon ions incident on Au(110), with energies down to a few 100 eV/q.

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