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Absolute Merged Beams Charge Exchange Cross Sections for H-like and Fully Striped Ions on Atomic Hydrogen[1] I.N. DRAGANIC, Physics Division, Oak Ridge National Laboratory, Oak Ridge, TN 37831, USA, D. MCCAMMON, Department of Physics, University of Wisconsin, Madison, WI 53706, USA, P.C. STANCIL, Department of Physics and Astronomy, Univesity of Georgia, Athenas, Ga 30602, USA, C.C. HAVENER, Physics Division, Oak Ridge National Laboratory, Oak Ridge, TN 37831, USA — Absolute total cross sections for single electron capture by hydrogen-like ions of carbon, nitrogen, oxygen and fully-stripped oxygen ions from atomic hydrogen are being measured in the relative collision energy range of 0.01-20 keV/amu. Measurements are performed using a merged-beams technique with intensive highly charged ion beams extracted from an all-permanent-magnet ECR ion source on a 250 kV platform. At the higher energies the measurements are in good agreement with previous H-oven measurements (Meyer et al. PRA 32, 3310(1985)) but unexpectedly decrease toward lower energies. The experimental results will be discussed and compared with different theoretical calculations.

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I.N. Draganic
Oak Ridge National Laboratory

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