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Angular distribution in the dissociation of  $H_2O$  by swift heavy ions R. CABRERA-TRUJILLO, Departments of Physics and Chemistry, University of Florida, Gainesville, FL 32611, N. STOLTERFOHT, Hahn-Meitner-Institut (HMI), Glienicker Str. 100,14109 Berlin, Germany, Y. ÖHRN, E. DEUMENS, J.R. SABIN, Departments of Physics and Chemistry, University of Florida, Gainesville, FL 32611 — In this work, we present calculations of the angular distribution of the products of the dissociation of water molecules when bombarded with  $He^{q+}$  for projectile energies between 1 and 5 keV. Here q = 0, 1, 2 is the charge of the incoming ion. Our theoretical results are based on the Electron-Nuclear Dynamics formalism (END)<sup>1</sup> We present results for the dissociation cross section, charge transfer cross section, the stopping cross section (nuclear and electronic) for the projectiles, and the angular distribution of  $He^{q+}$ , H, OH, and O.

<sup>1</sup>E. Deumens, A. Diz, R. Longo, and Y. Öhrn, Rev. Mod. Phys. **66**, 917 (1994).

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