

Abstract Submitted  
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**Electron capture cross sections for C(6+)+H collisions at low energies** CHIEN-NAN LIU<sup>1</sup>, Department of Physics, Fu-Jen Catholic University, Taipei, Taiwan, SHU CHUN CHENG, ANH-THU LE, CHII-DONG LIN<sup>2</sup>, Kansas State University — The hyperspherical close-coupling method has been used to calculate electron capture cross sections for  $C^{6+}+H$  collisions for energies from 1 keV/amu down to 0.1 eV/amu. Total electron capture cross sections and partial cross sections to  $n=4$  and  $n=5$  states of  $C^{5+}$  were obtained. For energies above 500 eV/amu our results agree with the semiclassical molecular orbital calculations but disagree with the more recent semiclassical atomic orbital calculations. For energies below 3 eV/amu the electron capture to  $n=5$  becomes dominant and at energies below 3 eV/amu the electron capture cross sections show the Langevin  $1/v$  dependence.

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