Abstract Submitted
for the DAMOP09 Meeting of
The American Physical Society

Isotopic effects in slow elastic and inelastic $He^{2+} + H$ collisions[1]
P.S. KRSTIC, Physics Division, ORNL, N. STOLTERFOHT, Helmholtz-Zentrum Berlin, Germany — We study isotopic effects in slow (10-400 eV) collisions of alpha-particle with hydrogen using a fully quantal Hidden Crossings Coupled Channel approach [Krstic, J. Phys. B. 37, L217 (2004)]. A strong presence of the Coriolis transitions in the studied energy range as well as a competition with the radial transitions create a number of strong and unexpected isotopic effects [Stolterfoht et al, Phys. Rev. Lett. 99, 103201 (2007)] in both inelastic (charge transfer and excitation) and elastic collisions. P.K. acknowledges support from the US DOE Office of Fusion Sciences through ORNL, under contract No. DE-AC05-00OR22725 with UT-Battelle, LLC.

[1]P.K. acknowledges support from the US DOE Office of Fusion Sciences through ORNL, under contract No. DE-AC05-00OR22725 with UT-Battelle, LLC.

P. S. Krstic
ORNL

Date submitted: 27 Jan 2009 Electronic form version 1.4