Application of the Hyperspherical Hidden Crossing Method to Near-Threshold Positron-Hydrogen Ionization

KRISTA JANSEN, S.J. WARD, University of North Texas, J.H. MACEK, University of Tennessee, J. SHERTZER, College of the HolyCross — We have applied the hyperspherical hidden crossing method [1] to compute the S-wave cross section for near-threshold e⁺-H ionization. We confirm the second order correction terms to the Wannier threshold law that were previously derived [2]. The small S-wave cross section is due to destructive interference between the two amplitudes that correspond to different paths leading to Ps formation.


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