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Experimental and theoretical investigation of the triple differential cross section for electron impact ionization of molecules of biological interest – thymine, pyrimidine, and tetrahydrofurfuryl alcohol¹ HARI CHALUVADI, D.H. MADISON, Missouri University of Science and Technology, J.D. BUILTH-WILLIAMS, S.M. BELLM, D.B. JONES, M.J. BRUNGER, ARC Centre of Excellence for Antimatter-Matter Studies, C.G. NING, Tsinghua University, B. LOHMANN, University of the Sunshine Coast — Cross-section data for electron impact induced ionization of bio-molecules are important for modeling the deposition of energy within a biological medium and also for gaining knowledge of electron driven processes at the molecular level. Triply differential cross sections have been measured and calculated for the electron impact ionization of the inner valence 2a and 14a orbitals of thymine, the outer valence 7b2 and 10a1 orbitals of pyrimidine, and the HOMO of tetrahydrofurfuryl alcohol. The experimental measurements will be compared with theoretical M3DW (molecular 3-body distorted wave) model calculations.

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