Abstract Submitted
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Electron collision cross sections for molecules SATYENDRA PAL[1], MANOJ KUMAR[2], MMH College, Ghaziabad — Indispensable input for modelling processes in plasma physics involves the complete cross section data sets for all interactions processes. Compilation of these data includes elastic and all inelastic processes (electronic and vibrational excitation, partial and total ionization, dissociative electron attachment, etc.) Data are needed for ground state species as well as metastables and other excited atomic particles and/or radicals. [1-2]. We present the calculations for the ionization cross sections and the averaged energy of the secondary electrons released in the partial ionization of the C_2H_2 molecule by electron impact. The JK semi empirical formulation is employed to evaluate the cross sections in the energy range ionization threshold to 1 keV. We have also derived the cross sections in the higher energy range upto 10 keV using Bethe analysis [3-4]. The evaluated results show the good comparison with other available experimental and theoretical results. **References** [**1**] B.P. Marinkovi *et al.; J. Phys.: Conf. Ser.* **86 (**2007) 012006. [**2**] H. Kubo, Proc. 3rd International Conference on Atomic and Molecular Data and Their Applications, Eds. D. R. Schulz, P. S. Krstić and F. Own by AIP Conference Proceedings **636** (2002) 161. [**3**] S. Pal et al.; *J. Phys. Chem.A* **123** (2019) 4314. [**4**] S. Pal et al.; *Rad. Phys. Chem.* **173** (2020) 108877. this text with your abstract body.

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