

**Recent research publications (in last five years) of Dr. Jasmeet Singh (Associate Professor, Department of Physics)**

**(i) Journal Publication:**

**International Publications**

1. **Jasmeet Singh** (2021). “*Electron-impact rotational excitation cross-sections and rate coefficients of molecular ion: HCO<sup>+</sup>*”. Monthly Notices of the Royal Astronomical Society (MNRAS), Vol. no. 504, 1531-1535.  
doi: 10.1093/mnras/stab936
2. Kaur, Savinder; Baluja, K. L.; **Singh, Jasmeet** & Bharadvaja, Anand (2019). “*Vibrationally-resolved excitation and dissociation collision strengths of AlO<sup>+</sup> by electron-impact using the R-matrix method*”. *The European Physical Journal D*, Volume no. 73, Article no. 142.  
doi: <https://doi.org/10.1140/epjd/e2019-90581-6>
3. M. Khamesian, M. Ayouz, **J. Singh**, V. Kokoouline, (2018). “*Cross sections and rate coefficients for rotational excitation of HeH<sup>+</sup> Molecule by electron impact*”. *Atoms*, MDPI, Vol. No. 6, issue no. 3, 49.  
doi: <https://doi.org/10.3390/atoms6030049>

**National Publication**

1. **Jasmeet Singh**, K. L. Baluja and Gagandeep Longiany, Rate coefficients of open shell molecules and radicals: *R*-matrix method, *Pramana-J. Phys.*, Indian Academy of Sciences, Volume 88, Issue 5, Article ID 76 (2017).  
doi: <https://doi.org/10.1007/s12043-017-1383-2>