

## **List of Publications**

1. **Smruti Parikh**, Chetan Limbachiya, K. N. Joshipura, Calculations of Total Ionization Cross-Sections for Electron Impact on H<sub>2</sub>SO<sub>4</sub>, In: Proceedings of the International Conference on Atomic, Molecular, Optical & Nano Physics with Applications, V. Singh, R. Sharma, M. Mohan, M. S. Mehata, A. K. Razdan, (eds). Springer Proceedings in Physics, vol 271. Springer, Singapore.
2. **Smruti Parikh**, Minaxi Vinodkumar, Chetan Limbachiya, Electron impact inelastic molecular processes for deuterated compounds, *Chemical Physics* 565, 111766 (2023)
3. **Smruti Parikh**, Chetan Limbachiya, Electron driven molecular processes for Nucleosides, *Radiation Physics and Chemistry* 208, 110940 (2023)
4. **Smruti Parikh**, Dhaval Chauhan, Nirav Thakkar, Chetan Limbachiya, Electron induced inelastic processes for aqua DNA compounds, *Radiation Physics and Chemistry* 214, 111248 (2024)
5. **Smruti Parikh**, Chetan Limbachiya, Electron interactions with DNA constituents in aqueous phase, *ChemPhysChem* (<https://doi.org/10.1002/cphc.202300916>) (2024)
6. Dhaval Chauhan, **Smruti Parikh**, Chetan Limbachiya, Theoretical investigations of electron interaction processes for Furfural and para-Benzoquinone (<https://doi.org/10.1080/00268976.2024.2314706>) (2024)
7. **Smruti Parikh**, Dhaval Chauhan, Chetan Limbachiya, Correlation study of electron scattering total cross-sections, impact energy and target parameters, Proceedings of International Conference on Recent Advances in (Applied) Sciences & Engineering, RRRNA, GoI, vol 3, pg. 357-361 (2023)
8. Dhaval Chauhan, **Smruti Parikh**, Chetan Limbachiya, Total cross-sections for Adenine in aqua phase, by electron collision, Proceedings of International Conference on Recent Advances in (Applied) Sciences & Engineering, RRRNA, GoI, vol 3, pg. 388-394 (2023)
9. Nirav Thakkar, Dhaval Chauhan, **Smruti Parikh**, Chetan Limbachiya, Electron driven processes for Perfluoronitriles, *The European Physical Journal D* (under revision)
10. Neha Barad, **Smruti Parikh**, Chetan Limbachiya, Positron interactions for ionization of atmospheric molecules, H<sub>2</sub>CO, NO<sub>2</sub> and O<sub>3</sub>, *ChemPhysChem* (under review)

11. Ashok Chaudhary, Harshad Bhutadia, **Smruti Parikh**, Minaxi Vinodkumar, Chetan Limbachiya, Electron interactions with beryllium and its hydrides, *International Journal of Mass Spectroscopy* (under review)
12. **Smruti Parikh**, Chetan Limbachiya, Minaxi Vinodkumar, Electron interaction study with CH<sub>2</sub>F<sub>2</sub> molecule over wide energy range 0.1-5000 eV (to be communicated)

## Papers presented in the conferences

1. Theoretical Calculations of Total Ionization Cross-sections for Electron Impact on H<sub>2</sub>SO<sub>4</sub> molecule  
**Smruti Parikh**, Chetan Limbachiya, K. N. Joshipura  
International conference on Atomic, Molecular, Optical and Nano Physics with Applications (CAMNP 2019), 18th – 20th December 2019, DTU, Delhi
2. Electron interactions with Fluorocompounds for application in Plasma sciences  
**Smruti Parikh**, Chetan Limbachiya  
Topical conference (TC 2020) on Atomic and Molecular collisions for Plasma Applications, 3rd – 5th March 2020, IIT Roorkee, Uttarakhand
3. Electron interaction with Deuterated molecules  
**Smruti Parikh**, Chetan Limbachiya (FSQT 2020)  
Fundamental science & Quantum technologies using Atomic Systems (FSQT 2020), 28th September – 1st October 2020, Physical Research Laboratory, Ahmedabad (online mode)
4. Inelastic processes for electron scattering with deuterated compounds  
**Smruti Parikh**, Chetan Limbachiya  
XXII International Symposium on Electron-Molecule Collisions and Swarms (POSMOL) Conference, 29th - 30th July 2021, University of Norte Dame, USA (online mode)
5. Electron Inelastic Mean Free Path and Mass Stopping Power Calculations for DNA Molecules  
**Smruti Parikh**, Chetan Limbachiya  
International Seminar on Advanced Materials and Applications (ISAMA 2022), 18<sup>th</sup> July 2022, The Maharaja Sayajirao University of Baroda, Vadodara
6. Correlation study of electron scattering total cross-sections, impact energy and target parameters  
**Smruti Parikh**, Dhaval Chauhan, and Chetan Limbachiya  
International Conference on Recent Advances in (Applied) Sciences & Engineering (RAISE 2023), 12th and 13th April, 2023, The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat
7. Total cross-sections for Adenine in aqua phase, by electron collision,  
**Dhaval Chauhan**, Smruti Parikh, and Chetan Limbachiya

International Conference on Recent Advances in (Applied) Sciences & Engineering  
(RAISE 2023), 12th and 13th April, 2023, The Maharaja Sayajirao University of  
Baroda, Vadodara, Gujarat