

## List of publications

- [1] Electron induced elastic and inelastic processes for perfluoroketone (PFK) molecules.  
**Nirav Thakkar**, Mohit Swadia, Minaxi Vinodkumar, Nigel Mason, Chetan Limbachia  
Plasma Sources Science and Technology, **30**(8), 085008. (2021).  
(Impact factor: 4.124)
- [2] Scattering of Electrons with aqueous Biomaterials  
Smruti Parikh, Dhaval Chauhan, **Nirav Thakkar**, Chetan Limbachiya  
(*Radiation Physics and Chemistry*, **214**, 111248 (2024).) (Impact factor: 2.776)
- [3] Theoretical investigation of electron interaction processes for furfural (C<sub>5</sub>H<sub>4</sub>O<sub>2</sub>) and  
p-benzoquinone (C<sub>6</sub>H<sub>4</sub>O<sub>2</sub>)  
Dhaval Chauhan, Smruti Parikh, **Nirav Thakkar**, Chetan Limbachiya  
(*Molecular Physics*, 2024, e2314706) (Impact factor: 1.937)
- [4] Study of electron impact on fluoronitrile molecules  
**Nirav Thakkar**, Dhaval Chauhan, Smruti Parikh, Chetan Limbachiya  
(Manuscript under review)
- [5] Study of Ionization Cross section, Polarizability and Dielectric Constant of C<sub>4</sub>F<sub>7</sub>N and  
C<sub>3</sub>F<sub>5</sub>HO<sub>2</sub>.  
**Nirav Thakkar**, Pinal Mer, Chetan Limbachiya  
Proceedings of International Conference RAISE: **Vol. III** Computer Science & Engg.,  
Applied Mathematics, Electrical Engineering, Applied Physics, 434–442, 2023.

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## List of papers presented in the conferences

- [1] Theoretical investigations of electrons impact on perfluoroketone (PFK) molecules  $C_xF_{2x}O$  ( $X=1-5$ ) – inelastic effects  
**Nirav Thakkar**, Chetan Limbachiya  
AISAMP-13<sup>th</sup> (Asian International Seminar on Atomic and Molecular Physics), 3 to 8 December 2018, IIT Bombay and TIFR-Mumbai.
- [2] Electron assisted elastic and inelastic processes for perfluoroketone (PFK) molecules  
**Nirav Thakkar**, Chetan Limbachiya  
National Conference on Atomic and Molecular Physics (NCAMP), 25th to 28th March 2019, IIT Kanpur.
- [3] Theoretical Study of electron driven elastic and inelastic processes for PFK (PerfluoroKetone) molecules  
**Nirav Thakkar**, Minaxi Vinodkumar, Chetan Limbachiya  
International Conference on Photonic, Electronic and Atomic Collisions), which will be held between 23 to 30 July 2019 at DEAUVILLE, FRANCE.
- [4] Electron Interaction Processes for chlouroflouromethane and  $CCl_x$  ( $x = 1-4$ )  
**Nirav Thakkar**, Chetan Limbachiya  
International conference on Atomic, Molecular, Optical and Nano Physics with Applications (CAMNP 2019), 18<sup>th</sup> – 20<sup>th</sup> December 2019, DTU, Delhi.
- [5] Electron assisted Processes for Fluoroketone and Fluoronitrile  
**Nirav Thakkar**, Chetan Limbachiya  
Topical conference (TC 2020) on Atomic and Molecular collisions for Plasma Applications, 3<sup>rd</sup> – 5<sup>th</sup> March 2020, IIT Roorkee, Uttarakhand.
- [6] e-  $C_xF_{2x}O$  ( $x = 1- 6$ ) Scattering; Qion (Peak) and Polarizability  
**Nirav Thakkar**, Chetan Limbachiya  
One Day Seminar on Dynamics of Electron collision processes, Department of Electronics, V.P. & R.P.T.P. Science college, V.V. Nagar, 8 November 2020.

[7] Electron impact ionization processes for Fluoronitrile gases

**Nirav Thakkar**, Chetan Limbachiya

XXII International Symposium on Electron-Molecule Collisions and Swarms (POSMOL) Conference, 29<sup>th</sup> - 30<sup>th</sup> July 2021, University of Norte Dame, USA (online mode).

[8] Electron assisted inelastic processes for Tetramethylsilane (TMS) molecule

**Nirav Thakkar**, Chetan Limbachiya

One day National Conference on Role of Basic sciences in emerging technologies 6<sup>th</sup> January 2023.