

## Department of Chemistry

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<b>Designation and Current Position</b>	Assistant Professor, Uka Tarsadia University, Bardoli, Gujarat, India
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<b>Qualification</b>	<ul style="list-style-type: none"> <li>❖ Post-Doctoral Fellow (2016-2018): Department of Inorganic and Physical Chemistry, Indian Institute of Science, Bangalore-560012, India.</li> <li>❖ Ph.D. (2011-2016): Department of Chemistry; Banaras Hindu University, Varanasi-221005, Uttar Pradesh, India.</li> <li>❖ M. Sc. (2008-2010): Department of Chemistry; Banaras Hindu University, Varanasi-221005, Uttar Pradesh, India</li> </ul>
<b>Area of interest</b>	<ul style="list-style-type: none"> <li>✓ Ultrafast energy transfer dynamics in Singlet Fission for solar cell.</li> <li>✓ Perovskite Nanocrystals and its application as photocatalyst</li> <li>✓ Surface modulated optical and energy transfer process of noble metal (Gold) nanoparticle.</li> <li>✓ Optical properties and Application of fluorescence Ionic Liquids.</li> <li>✓ Ultrafast Electron and Energy Transfer dynamics of Push-Pull Organic molecules in Solution</li> </ul>
<b>Teaching Experience</b>	NA
<b>Current Position</b>	Assistant Professor, Uka Tarsadia University, Bardoli, Gujarat, India
<b>Achievements</b>	NET-UGC-CSIR Qualified (2010); National Post Doc Fellowship (N-PDF) funded by DST-SERB (2016)
<b>List of Publications</b>	<ul style="list-style-type: none"> <li>❖ <b>Book Chapter (1)</b></li> <li>1. <b>Efficient Synthetic Protocol and Mechanistic Study of Quinazoline Analogues and Their Biological Importance</b> <i>Sumit K. Panja*</i>, Satyen Saha*, <b>Advances in Organic Synthesis</b>, 2018, 121-146.</li> <li>❖ <b>Paper Publications (19)</b></li> <li>19. <b>Probing Phenol Dimer in Molecular Complex: Role of Nitro group and Stabilizing Agent</b>, <i>Sumit K. Panja*</i>, Supriy Verma, Satyen Saha*, <i>J. Mol. Struct.</i>, 1193, 2019, 103-109.</li> </ul>

- 18. Cluster formation through hydrogen bond bridges across chloride anions in a hydroxyl-functionalized ionic liquid**  
Sumit K. Panja, Boumediene Haddad, Mansour Debdab, Johannes Kiefer, Yassine Chaker, Serge Bresson, Annalisa Paolone  
*ChemPhysChem.*, 20, 2019, 936-940.
- 17. Selective Photodissociation of Highly Photoactive Bis-2-benzylidenemalononitrile in Solution**  
Sumit K. Panja,\* Suvajit Koley and Haddad Boumediene  
*J. Photochem. Photobio.*, 375, 2019, 18-23.
- 16. Temperature Sensor Probe Based on Intramolecular Charge Transfer (ICT) & Reversible Solute-Solvent Interaction in Solution**  
Sumit K. Panja,\* Satyen Saha\*  
*Spectro. Chem. Acta. A*, 212, 2019, 128-131.
- 15. Cluster of the Ionic Liquid 1-Hydroxyethyl-3-methylimidazolium picrate: From Theoretical Prediction in the Gas phase to Experimental Evidence in the Solid State**  
Sumit K. Panja, Haddad Boumediene, J. Kiefer,\*  
*ChemPhysChem.*, 19, 2018, 3061-3068.
- 14. Probing Effect of Weak H-bonding on Conformational Change in Ionic Liquid: Experimental and DFT Studies**  
Sumit K. Panja, Haddad Boumediene,\* Mokhtar Draï, Didier Villemin, Serge Bresson,  
*J. Mol. Liq.*, 266, 2018, 727-731.
- 13. Catalyst-Free One-Pot Access to Pyrazoles and Disulfide-Tethered Pyrazoles via Deamidative Heteroannulation of  $\beta$ -Ketodithioesters with Semicarbazide Hydrochloride in Water**  
Suvajit Koley, Sumit K. Panja, Sonam Soni, and Maya Shankar Singh\*,  
*Adv. Synth. Catal.* 360, 2018, 1780-1785.
- 12. Evidence of C··F-P and Aromatic  $\pi$ ··F-P Weak Interactions in Imidazolium Ionic Liquids and its Consequences.**  
Sumit K. Panja, Nitin Srivastava, Hemanth Noothalapati, Shinsuke Sigeto, Satyen Saha\*,  
*Spectrochimica Acta Part A*, 194, 2018, 117-125.

- 11. Micro-heterogeneity in imidazolium and piperidinium cation based ionic liquids: 1D and 2D NMR studies**  
Sumit K. Panja\*, Satyen Saha\*,  
*Magn. Reson. Chem.* 56, 2018, 95-102.
- 10. NIR Luminescent Heterodinuclear [ZnII-LnIII] Complexes: Synthesis, Crystal Structures and Photophysical properties**  
Nidhi Dwivedi, Sumit K. Panja, Abhineet Verma, Tomohisa Takaya, Koichi Iwata, Sailaja S. Sunkari, Satyen Saha\*,  
*J. Luminescence.*, 192, 2017, 156-165.
- 9. Tunable Intra Molecular Charge Transfer (ICT) Process of Push-Pull System: Effect of Nitro group**  
Sumit K. Panja, Nidhi Dwivedi and Satyen Saha\*  
*RSC Adv.* 6, 2016, 105786-105794.
- 8. Manipulation of Proton Transfer in Molecular Complexes: Experimental and Theoretical Studies**  
Sumit K. Panja, Nidhi Dwivedi and Satyen Saha\*,  
*Phys. Chem. Chem. Phys.*, 18, 2016, 21600-21609.
- 7. Anion Directed Structural Diversity in Zinc Complexes with Conformationally Flexible Quinazoline Ligand: Structural, Spectral and Theoretical Studies**  
Nidhi Dwivedi, Sumit K. Panja, Monika Das, Satyen Saha, Sailaja S. Sunkari\*,  
*Dalton Trans.*, 45, 2016, 12053-12068.
- 6. Highly Stable Naphthalene Core based Novel Strain Molecule: Influence of Intermolecular H- Bonding Architectures**  
Sumit K. Panja, Nidhi Dwivedi, Satyen Saha\*,  
*RSC Adv.* 6, 2016, 59574–59581.
- 5. First Report of Application of Simple Molecular Complexes as Organo-Catalyst for Knoevenagel Condensation**  
Sumit K. Panja, Nidhi Dwivedi and Satyen Saha\*,  
*RSC Adv.*, 5, 2015, 65526-65531.
- 4. Significance of Weak Interactions in Imidazolium picrate Ionic Liquids: Spectroscopic and Theoretical Studies for Molecular Level Understanding**  
Sumit K. Panja, Nidhi Dwivedi, Hemanth Noothalapati, Shinsuke

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	<p>Shigeto, A. K. Sikder, Abhijit Saha, Sailaja S. Sunkari and Satyen Saha, <i>Phys. Chem. Chem. Phys.</i>, 17, 2015, 18167-18177.</p> <p><b>3. Anti-cancer Therapeutic Potential of Quinazoline Based Small Molecules Via Global Upregulation of miRNAs</b> Smita Nahar, Debojit Bose, <u>Sumit K. Panja</u>, Satyen Saha and Souvik Maiti, <i>Chem. Commun.</i>, 50, 2014, 4639-4642.</p> <p><b>2. Recyclable, Magnetic Ionic Liquid bmim[FeCl<sub>4</sub>] Catalyzed, Multicomponent, Solvent-free, Green Synthesis of Quinazolines</b> <u>Sumit K. Panja</u>, Satyen Saha* <i>RSC Adv.</i>, 3, 2013, 14495-14500.</p> <p><b>1. I<sub>2</sub>-catalyzed Three-component Protocol for the Synthesis of Quinazolines</b> <u>Sumit K. Panja</u>, Nidhi Dwivedi, Satyen Saha*, <i>Tetrahedron Letters</i>, 53, 2012, 6167-6172.</p>
<b>Seminar/ Conference</b>	<p><b>9. CBVSESU-International Symposium</b> <b>Venue and Date:</b> CSIR-National Institute of Oceanography, Goa, India, 7<sup>th</sup> -8<sup>th</sup> August, 2016.</p> <p><b>8. 6<sup>th</sup> IJAA-JSPS-International Symposium</b> <b>Topic:</b> Contemporary Advances of Science and Technology <b>Poster Presented:</b> Importance of Weak interaction in picrate based Ionic liquids: Spectroscopic and Theoretical Studies <b>Venue and Date:</b> Department of Physics, Banaras Hindu University, Varanasi, 7<sup>th</sup> -9<sup>th</sup> August, 2015.</p> <p><b>7. Science Academics Lecture's Workshop</b> <b>Topic:</b> Spectroscopy in Chemical Biology <b>Venue and Date:</b> Department of Chemistry, Banaras Hindu University, Varanasi, 21<sup>st</sup> -22<sup>nd</sup> March, 2014.</p> <p><b>6. Science Academics Lecture's Workshop</b> <b>Topic:</b> Supramolecular Chemistry: Concepts and Perspectives <b>Venue and Date:</b> Department of Chemistry, MMV, Banaras Hindu University, Varanasi, 4<sup>th</sup>-5<sup>th</sup> March, 2014.</p>

	<p><b>5. National Symposium on Organic Synthesis and Advance Material (NSOSAM-2014)</b></p> <p><b>Poster Presented:</b> Energetic Low Melting Ionic Salts: Design, Synthesis and Structural Studies.</p> <p><b>Venue and Date:</b> Department of Chemistry, Banaras Hindu University, Varanasi, 1<sup>st</sup>-2<sup>nd</sup> March, <b>2014</b>.</p> <p><b>4. National Symposium in Chemistry and Environment (NSCE-2013)</b></p> <p><b>Lecture and Poster Presented:</b> I<sub>2</sub>-catalyzed three-component protocol for the synthesis of quinazolines</p> <p><b>Venue and Date:</b> Department of Chemistry, Banaras Hindu University, Varanasi, 15<sup>th</sup> -16<sup>th</sup> March, <b>2013</b>.</p> <p><b>3. 15<sup>Th</sup> CRSI National Symposium in Chemistry (CRSI-2013)</b></p> <p><b>Venue and Date:</b> Department of Chemistry, Banaras Hindu University, Varanasi, 1<sup>st</sup> -3<sup>rd</sup> Feb, <b>2013</b></p> <p><b>2. 7<sup>Th</sup> RSC-CRSI Symposium in Chemistry (RSC-CRSI-2013)</b></p> <p><b>Venue and Date:</b> Department of Chemistry, Banaras Hindu University, Varanasi, 31<sup>st</sup> January, <b>2013</b></p> <p><b>1. Science Academics Lecture's Workshop</b></p> <p><b>Topic:</b> Molecular Spectroscopy: Theory, Instrumentations and Applications</p> <p><b>Venue and Date:</b> Department of Chemistry, Banaras Hindu University, Varanasi, 2<sup>nd</sup> -3<sup>rd</sup> March, <b>2012</b>.</p>
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**For further information:**

- [https://www.researchgate.net/profile/Sumit\\_Panja2](https://www.researchgate.net/profile/Sumit_Panja2)
- <https://scholar.google.co.in/citations?user=NwVIukcAAAAJ&hl=en>