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| **Sachchidanand Soaham Gupta** | | |
| **Contact Information** | 365, Lawn Street, Pittsburgh, PA 15213 | **Phone:** +1-(412)-708-0766  **Email**: soaham.gupta@pitt.edu |
| **Education** | | |
| **University of Pittsburgh, Pennsylvania, PA, USA *August 2022 -till date*** Department of Chemistry, Dietrich School of Arts and Sciences  *Doctor of Philosophy* in Chemistry, GPA 3.625/4.0  *Advisor:* Prof Alexander Star | | |
| **Amity University, NOIDA, Uttar Pradesh, INDIA *July 2019 - June 2021*** Department of Chemistry, Amity Institute of Applied Science  *Master of Science* in Applied Chemistry, GPA 8.94/10  *Advisor:* Dr Kumar Rakesh Ranjan  *Master’s Thesis:* Synthesis and processing of bioderived and biodegradable polymers from agricultural-industrial wastes for packaging materials | | |
| **Atma Ram Sanatan Dharam College, University of Delhi *July 2016 - May 2019*** *Bachelor of Science* in Industrial Chemistry, GPA 8.03/10  *Advisor:* Prof. Rajeev Singh  *Project: A*n alternative for petrochemical-based polymers – synthesis of bio-based/semi-bio based, biodegradable, and high-performance polymers with advanced properties for a sustainable future. | | |
| **Research experience** | | |
| **CSIR – National Physical Laboratory, New Delhi, INDIA *December 2020 - July 2021*** *Advisor:* Dr Parveen Saini, Principal Scientist  *Project:* Synthesis and processing of bioderived and biodegradable polymers from agricultural-industrial wastes for packaging materials  **Sakura International Science Exchange Program (Online Exchange Platform)**  ***Host:* Kwansei Gakuin University, JAPAN *February 2021 - March 2021*** *Project:* Endemic arsenic water contamination in INDIA and its remediation   * Studied the endemic water contamination issues in INDIA and proposed and electrocoagulation- based approach for arsenic and iron remediation and community welfare.   **Materials And Organometallics Research Lab (Undergraduate Project Fellow,)**  **Atma Ram Sanatan Dharma College, University of Delhi, INDIA *July 2016 - May 2019*** *Project Investigator(s):* Prof. Rajeev Singh and Dr Amit Kumar  *Project:* An alternative for petrochemical-based polymers: synthesis of bio-based/semi-bio based, biodegradable, photo-functional and high-performance polymers with advanced properties for a sustainable future.  Other Research Areas   * Worked on synthesis of bimetallic and trimetallic nanocomposites via sol-gel route. * Worked on synthesis of Au-DTC and Pt-DTC complexes and studied their biological applications. * Worked on synthesis of Hydrogels and studied their role in water remediation. | | |

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| **Publications** |
| Review Article  **Amino acid derived biopolymers: Recent advances and biomedical applications.** [[Link](https://www.sciencedirect.com/science/article/abs/pii/S0141813021016950?via%3Dihub)]  ***Gupta, S. S*.,** Mishra, V., Mukherjee, M. D., Saini, P., & Ranjan, K. R. (2021).  Elsevier, International Journal of Biological Macromolecules. Vol 188 (pp. 542-567) (I.F. - 6.95)  **Essential Oils for their Antimicrobial Effects with Emphasized Antiviral Activity: A Review**  Jindala, S., Yadav, N., Deeksha, ***Gupta, S. S.,***M., Sharma, M., Sharma, K., Ranjan, K. R., Mishra, V. (2022) (Under Review) Submitted to Chemistry and Biodiversity  Research Articles  **Trimetallic oxide nanocomposites of transition metals titanium and vanadium by sol-gel technique: synthesis, characterization, and electronic properties** [[Link](https://iopscience.iop.org/article/10.1088/2053-1591/aabd23)]  Kumar, A., Mishra, N. K., Sachan, K., Ali, M. A., ***Gupta, S. S.,***& Singh, R. (2018). IOP Publishing, Materials Research Express, 5(4), 045037. (I.F. - 1.618)  **Green synthesis of gold nanoparticles from Combretum indicum and their characterization.** [[Link](http://op.niscair.res.in/index.php/IJCT/article/view/54000/465480446)]  ***Gupta, S. S.,***Patanjali, P., Mishra, N. K., Kumar, A., Chopra, I., & Singh, R. (2021)  NISCAIR, Indian Journal of Chemical Technology Vol. 28, November 2021, pp. 730-734  Book Chapters  **Advancing water quality assessment via artificial neural networks (ANNs).** [[Link](https://iopscience.iop.org/book/978-0-7503-3047-3/chapter/bk978-0-7503-3047-3ch5)]  ***Gupta, S. S.,***Singh, R., & Chaudhary, P. (2021)  Spectroscopy and Machine Learning for Water Quality Analysis (pp. 5-1-5-18): IOP Publishing  **Sol–Gel Deposition of Thin Films.** [[Link](https://onlinelibrary.wiley.com/doi/10.1002/3527600434.eap808)]  Nagyal, L., ***Gupta, S. S.,***Singh, R., Kumar, A. and Chaudhary, P. (2019). Digital Encyclopedia of Applied Physics, Wiley‐VCH Verlag GmbH & Co. |
| **Conferences & Workshops** |
| **Papers Presented**  **National Seminar on Environment and Sustainability in Third World *March 2020***  Oral Presentation on ***Sustainable synthesis and study of TMONCs of Titanium and Vanadium***  Hans Raj College, University of Delhi, INDIA  **National Conference on “New Trends in Nanotechnology and Applications *February 2020***  Poster Presentation on ***Structural investigation of nanomixed xSnO2–Al2O3 synthesized by sol–gel route****.*  Atma Ram Sanatan Dharam College, University of Delhi, INDIA  **International Conference on "Green Chemistry in Environmental Sustainability & Chemical Education**  Poster presentation on *study of* ***“Platinum (II) complexes with biologically active ligands”***  Daulat Ram College, University of Delhi, INDIA ***September 2016***  **Participated**  **National Conference on “Clean & Green Energy: The Chemical & Environmental Aspects”**  Bhaskaracharya College of Applied Sciences, University of Delhi, INDIA ***February 2017***  **Youth Science Conference**  INDIA International Science Festival, Lucknow, INDIA ***October 2018*** |

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| **Volunteering And Leadership** | |
| **NGO - Renukiran Welfare Foundation**  *Volunteer,* ***August 2020- October 2020***   * Created content to support online learning for underprivileged children. * Collaborated on raising funds and volunteers through seminars and workshops at various organizations. * Brainstorming on social media and growth strategy  1. **Rasayan: The Chemistry Club of Amity Institute of Applied Science**   Amity University, NOIDA, Uttar Pradesh, INDIA  *President* ***May 2020- April 2021***   * + Organized quizzes, e-games, and fun activities online during the COVID-19 pandemic lockdown for the students   + Coordinated various webinars, workshops and interactive discussions with academia and industry representatives for students.   **“ChemCrown”: The Chemistry Society of ARSD College**  Atma Ram Sanatan Dharma College, University of Delhi, INDIA  *Vice President,* *July 2018 - April 2019*  Executive Member, Secretary *July 2016 – June 2018*   * + Consulted along with teachers, seniors, and authorities to advertise and highlight the achievements of chemistry.   + Coordinated two-day chemistry extravaganza ChemCrown Fest for three consecutive years (2016-19) with   nationwide participations   * + Managed various seminars, industrial visits, and workshops for students at the college. | |
| **Relevant Coursework** | *Inorganic and Materials Chemistry* - Polymer Chemistry, Bio- inorganic Chemistry Organometallic and Coordinate Chemistry, Industrial Chemistry  *Organic Chemistry* - Organic Reaction Mechanisms, Medicinal Chemistry, Cosmetics, Spectroscopy, Green Chemistry  *Interdisciplinary -* Instrumental Methods of Analysis, Professional Ethics, Abstract Algebra, Waves and Optics, Mathophysics & Mechanics |
| **Skills** | *Tools:* ChemOffice*,* Origin Pro, End Note, Adobe Illustrator, Python  *Techniques:* Sol-gel synthesis, Polycondensation, Soxhlet Extraction  *Instruments:* UV-Vis Spectrophotometer, FT-IR |
| **Personal Attributes** | Problem Solving, Effective Communication, Teamwork, Adaptability, Creative Thinking, Initiative-taking |