COMPLETE LIST OF PUBLICATIONS

PUBLICATIONS IN REFERRED JOURNALS:(∗Corresponding author)

2025

1. Dipendu Sarkar, Maitrayee Biswas, Swarup Ghosh, Joydeep Chowdhury, Biswarup Satpati, and **Srabanti Ghosh***, "*Nanoscale Level Interfacial Bi-S Bond Assisted Direct Z-Scheme $BiOCl/Cu_2SnS_3$ Heterostructured Photocatalyst for Enhanced Photocatalytic Hydrogen Evolution*" **ChemSusChem,** 18 (2025) e202402655. (**I.F. = 6.2**) **(Very Important Paper)**

2. Dipendu Sarkar, Jishu Pramanik, Sirsendu Ghosal, Swadesh Paul, P. -K. Giri, Anuja Datta, Sudarson Sekhar Sinha, Gourisankar Roymahapatra, and **Srabanti Ghosh*** "*Synergistic Effect of Atomic-Scale Interface Engineering and Built-in Electric Field at S-Scheme $Bi_2WO_6/ZnIn_2S_4$ Heterojunctions for Photocatalytic Hydrogen Evolution*" **Small,** 21 (2025) 2505315. (**I.F. = 13**)

3. Jishu Pramanik, Dipendu Sarkar, Pravin G. Ingole, Jayanta Mukhopadhyay, and **Srabanti Ghosh*** "*Exfoliated $Sr_3FeCoO_{6.72}$ modified TiO_2 based Cathode Material for Ammonia Production via Nitrogen Reduction Reaction and Mechanistic Insights into Charge Transport*" **ChemCatChem**., 17 (2025) e00737 (**I.F. = 3.9**)

4. Soumita Samajdar, Maitrayee Biswas, Dipendu Sarkar, Jishu Pramanik, Jayanta Mukhopadhyay, and **Srabanti Ghosh***, "*Double heterojunction photocatalysts: A strategic fabrication, and mechanistic insight towards sustainable fuel production*" **ChemComm,** 61 (2025) 6069–6094. **(I.F. = 4.3)**

5. Dipendu Sarkar, Jishu Pramanik, Maitrayee Biswas, Soumita Samajdar, Tripti Bera, and **Srabanti Ghosh***, "*Direct Z-Scheme Bismuth Oxychloride/α-Phase Iron(III) Oxide Heterojunction: A Pathway to Enhanced Photoelectrochemical Water Splitting*" **ES Chemistry and Sustainability**, 3 (2025) 1551.

6. **Srabanti Ghosh***, Pradip Sekhar Das, Maitree Biswas, Soumita Samajdar, and Jayanta Mukhopadhyay, "*Z-Scheme Ferrite Nanoparticle/Graphite Carbon Nitride Nanosheet Heterojunctions for Photocatalytic Hydrogen Evolution*" **International Journal of Hydrogen Energy**, 107 (2025) 586-596. **(I.F. = 8.1) Invited, Special Issue on Emerging Technologies for Solar Green Hydrogen Generation. (Citation: 09)**

7. Debkumar Bera, Sukhendu Mahata, Maitrayee Biswas, Komol Kumari, Surajit Rakshit, Nonappa, **Srabanti Ghosh**, and Nirmal Goswami* "*Efficient Photocatalytic Hydrogen Production Using In-situ Polymerized Gold Nanocluster Assemblies*" **Small,** 21 (2025) 2406551. (**I.F. = 13**)

8. Soumita Samajdar[#], Gajiram Murmu[#], Maitrayee Biswas, Srikrishna Manna, Sumit Saha[*], and **Srabanti Ghosh*** "*Polyoxometalate loaded reduced graphene oxide modified metal vanadate catalyst for photoredox reactions through Indirect Z-scheme mechanism*" **Energy Advances,** 4 (2025) 639–656. **(I.F. = 3.2)**

9. DipenduSarkar, Jishu Pramanik, Soumita Samajdar, Maitrayee Biswas, and **Srabanti Ghosh***, "*Charge Carrier Dynamics in Semiconductor–Cocatalyst Interfaces: Influence on Photocatalytic Activities*" **RSC Applied Interfaces,** 2 (2025) 573–598. **Selected to feature in Sustainable Development Goals 7: Affordable and Clean Energy Collection.**

10. Subhajit Mojumder, Tanushri Das, Sanchi Monga, Prantik Bhattacharya, Sourabh Pal, **Srabanti Ghosh***, Saswata Bhattacharya* and Mrinal Pal*, "*Synergistic Effect of ZnO-$ZnFe_2O_4$ Heterostructure*

for Enhanced Surface Catalytic Activity in Cr (VI) Reduction, Green H_2 Generation and CO Sensing: Experimental Study supported by DFT" **Nanoscale,** 17 (2025) 5941. **(I.F. = 5.8)**

11. Subhajit Mojumder, Tanushri Das, Sagnik Das, Maitrayee Biswas, **Srabanti Ghosh**, and Mrinal Pal*, "*Spinel Chromite MCr_2O_4 (M = Cu, Mg, Zn) Nanoparticle Based Sensor Towards Trace Acetone Detection: A Handheld Device for Non-invasive Diabetes Diagnosis from Exhaled Breath"* **ACS Applied Nano Materials,** 8 (2025) 6188–6200. **(I.F. = 5.3)**

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13. Subhajit Mojumder, **Srabanti Ghosh**, and Mrinal Pal*, "Novel yttrium iron garnet ($Y_3Fe_5O_{12}$) based chemiresistive highly sensitive selective ultrafast CO gas sensor" **Chem Asian J.** (2025) e00187 **(I.F. = 3.3)**

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14. **Srabanti Ghosh**,* Sourabh Pal, Maitrayee Biswas, Maiyalagan Thandavarayan, Allu Amarnath Reddy, and Milan Kanti Naskar, "*Dual Active Site Mediated Photocatalytic H_2 Evolution through Water Splitting Using CeO_2/PPy/BFO Double Heterojunction Catalyst*" **ACS Applied Energy Materials,** 7 (2024) 11453–11465. **(I.F. = 5.5) Invited to an Early Career Forum celebrating the contributions of early career investigators. (Citation: 05)**

15. Yaovi Holade,***Srabanti Ghosh**, and Teko W. Napporn, "*Best practices for hydrogen peroxide (photo)electrosynthesis*" **Nature Sustainability**, 7 (2024) 1085–1087. **(I.F. = 27.6) (Citation: 08)**

16. **Srabanti Ghosh***, Pradip Sekhar Das, Susmita Bera, Dipendu Sarkar, Kamalesh Roy, Sukhendu Nath, Pritam Ghosh, Chandan Ghosh, and Amarnath R. Allu, "*Conjugated Polymer Supported doped Bi_2WO_6 S-Scheme Heterojunction for Proficient Water Splitting via Dual Regulation of Band Gap Engineering and Improved Charge Separation*" **ACS Applied Energy Materials,** 7 (2024) 10906-10920. **(I.F. = 5.5) (Citation: 02)**

17. Sourabh Pal, Pradip Sekhar Das, Milan Kanti Naskar, and **Srabanti Ghosh**,* ¨*Metal oxide nanocrystals embedded polypyrrole nanohybrid: Exploring role of interface in photocatalytic hydrogen generation*" **Materials Today Sustainability,** 25 (2024) 100610. **(I.F. = 7.1) (Citation: 10)**

18. Indrajeet Mandal, Jagannath Gangareddy, AbimannanSethurajaperumal, N. K. Murugasenapathi, Manikanta Majji, Susmita Bera, Pratyasha Rudra, Vanmathi Ravichandran, Sandip Bysakh, Noah Jacob, K. D. M. Rao, Rajiv K. Singh, N. M. Anoop Krishnan, Manohar Chirumamilla*, P. Tamilarasan*, M. Motapothula*, EswaraiahVarrla*, **Srabanti Ghosh***, and Amarnath R. Allu* "*H-Glass Supported Hybrid Gold Nano-Islands for Visible-Light-Driven Hydrogen Evolution*" **Small,** (2024) 2400311. (**I.F. = 13**) **(Citation: 03)**

19. Subhajit Mojumder, Tanushri Das, Tanmoy Mondal, **Srabanti Ghosh**, Debdulal Saha, Chandan Kumar Ghosh, and Mrinal Pal, "*Improved ammonia sensing performance achieved through defect modulation by Li doping in cauliflower-like ZnO for exhaled breath analysis towards renal diseases detection: An experimental venture supported by DFT calculation*" **TrAC- Trends in Analytical Chemistry,** 180 (2024) 117896.**(I.F. = 14.908) (Citation: 03)**

20. Gajiram Murmu, Soumita Samajdar, **Srabanti Ghosh**, K Shakeela, and Sumit Saha, "*Tungsten-based Lindqvist and Keggin type polyoxometalates as efficient photocatalysts for degradation of toxic chemical dyes*" **Chemosphere,** 346 (2024) 140576. **(I.F. = 8.8) (Citation: 13)**

21. Nisha Gupta, Soumita Samajdar, **Srabanti Ghosh***, and Pallab Bhattacharya*, "*Development of octahedral shaped Zn_2TiO_4 loaded Ti_3C_2-TiO_2 ternary composite with excellent photocatalytic efficiency*" **Inorganic Chemistry Communications,** 160 (2024) 111880. **(I.F. = 4.4) (Citation: 07)**

22. SrabantiSamajdar, Shiney Golda, S.K. Lakhera, and **Srabanti Ghosh***, "*Recent Progress in Chromium Removal from Wastewater using Covalent Organic Frameworks – A review*" **Chemosphere,** 350 (2024) 141028. **(I.F. = 8.8) (Citation: 15)**

23. Fang Chen, Yuxue We*, Mingyang Ren, Song Sun, **Srabanti Ghosh***, and Ramachandran Vasant Kumar, "*Recent Progress in All-Solid-State Z-Scheme Heterostructures for Photoreduction of CO_2*", **ChemCatChem,** (2024) e202301492. **(I.F. = 5.5) (Citation: 08)**

24. Aradhana Acharya, Barnasree Chanda, Madhuvathani Saminathan, Suresh Perumal, K. Jayanth, K. Anna purna, N. M. Anoop Krishnan, Bhasker Gahtori, Milan Kanti Naskar, **Srabanti Ghosh***, Amarnath R Allu*, and Suman Kumari Mishra, "*Influence of metal organic framework glasses on thermoelectric properties of $AgSb_{0.96}Zn_{0.04}Te_2$ alloy*" **Journal of Non-Crystalline Solids,** 627 (2024) 122816. **(I.F. = 4.458)**

25. Adwitiya Chakraborty, Soumita Samajdar,**Srabanti Ghosh*** and Milan Kanti Naskar,* "*Visible light induced photocatalytic removal of an organic dye using metal doped iron oxide based catalysts derived from red mud*" **New Journal of Chemistry,** 48 (2024) 10401–10414. **(I.F. = 3.069)**

26. Tanushri Das, Subhajit Mojumder, Dipendu Sarkar, **Srabanti Ghosh***, Mrinal Pal* "*$BiFeO_3$ Nanoparticles Embedded on α-MoO_3 Nanorods: A Heterostructure for Oxygen Vacancy-Driven Photocatalytic Activity and Gas Sensing*" **ACS Applied Nano Materials,** 7 (2024) 25675–25692. **(I.F. = 5.3) (Citation: 06)**

27. Aparna Jamma, Sourabh Pal, Ujjwal Pal*, **Srabanti Ghosh*** *"Electron Migration and Structural Modulation of Metal-Organic Frameworks for Sustainable Fuel Generation"* **Energy & Fuel (ACS),** 38 (2024) 23299–23319. **(I.F. = 5.2) (Citation: 02)**

28. Jagannath Gangareddy, Pratyasha Rudra, Manohar Chirumamilla, Sudheer Ganisetti, S. Kasimuthumaniyan, Sourav Sahoo, K. Jayanthi, Jagannath Rathod, Venugopal Rao Soma, Subrata Das, Nitya Nand Gosvami, N.M. Anoop Krishnan, Kjeld Pedersen, Swastik Mondal,* **Srabanti Ghosh**,* Amarnath R. Allu* "*Multi-Functional Applications of H-Glass Embedded with Stable Plasmonic Gold Nano–Islands*" **Small,** 2303688 (2024) 1–18. **(I.F. = 13) (Citation: 10)**

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29. **Srabanti Ghosh*,** Susmita Bera, Samim Sardar, Sourabh Pal, Franco Camargo, Cosimo D'Andrea, and Giulio Cerullo, "*Role of Efficient Charge Transfer at the Interface between Mixed Phase Copper-Cuprous Oxide and Conducting Polymer Nanostructures for Photocatalytic Water Splitting*" **ACS Applied Materials & Interfaces,** 15 (2023)18867–1887. **(I.F. = 8.3) (Citation: 34)**

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33. Sudip Bhattacharjee, Riyanka Das, Tonmoy Chakraborty, Susmita Bera, **Srabanti Ghosh**, Priyabrata Banerjee, Asim Bhaumika, 2D pillared-layer Co-based MOF as a "*two-in-one" chemosensor for S_2^- with meticulous chemodosimetric screening of HSO_4^-in absolute aqueous medium and photo-induced CO_2 conversion*" **Chemical Engineering Journal,** 473 (2023) 145238. **(I.F. = 16.7) (Citation: 10)**

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52. Elham Vesali-Kermani, Aziz Habibi-Yangjeh*, Hadi Diarmand-Khalilabad, and **Srabanti Ghosh**, "*Nitrogen photofixation ability of g-C_3N_4 nanosheets/Bi_2MoO_6 heterojunction photocatalyst under visible-light illumination*" **Journal of Colloid and Interface Science**, 563 (2020) 81-90. **(I.F. = 9.965)**

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55. Elham Vesali-Kermani, Aziz Habibi-Yangjeh* and **Srabanti Ghosh**, "*Visible-light-induced nitrogen photofixation ability of g-C_3N_4 nanosheets decorated with MgO nanoparticles*" **Journal of Industrial and Engineering Chemistry,** 84 (2020) 185-195. **(I.F. = 6.76)**

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BOOK Chapters

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INVITED TALKS/SEMINARS:

1. ***"Modulation of Enzyme Activity by Surface Functionalized Quantum Dots"*** **S. Ghosh**, S. Acharya and M. Ray on ACHARYA P C RAY National Young Scientist' held at University of Calcutta, Kolkata, 17th & 18th February, 2012.

2. ***"Synthesis of One-Dimensional Conducting Polymer Nanostructures and Hybrid Composites in Self-Assembled Matrices for Energy Applications"*** **S. Ghosh**, L. Ramos, S. Remita, A. -L. Teillout and H. Remita, 5th International Conference on Advanced Materials, ANM2014 held at Aveiro, Portugal, 02nd -04th July, 2014.

3. ***"One-Dimensional Conducting Polymer Nanostructures and Hybrid Composites Synthesized in Swollen Hexagonal Mesophases for Energy Applications"*** **S. Ghosh**, L. Ramos, S. Remita, A. Dazzi, A. -L. Teillout and H. Remita, Gordon Research Conference on Radiation Chemistry held at Proctor Academy, New Hampshire, USA, 13th -18th July, 2014. **(Young Investigator Session)**

4. ***"Hybrid Polymer Nanostructures in Self-Assembled Matrices for Catalytic Applications"*** **S. Ghosh**, L. Ramos, P. Beaunier, A.-L. Teillout, P. de Oliveira and H. Remita, ICNN 2014: International Conference on Nanotechnology and Nanomedicine held at Venice, Italy, 14-15th August, 2014.

5. "***Research frontiers in solar light harvesting: Artificial photosynthesis***" **S. Ghosh,** Young Scientists' Conference in IISF 2020, Frontier Areas of Sciences - Chemistry, Ministry of Science & Technology, 6th India International Science Festival, Online, 23rd December 2020.

6. **"*Conducting Polymer Based Hybrid Nanomaterials for Visible-Light-Driven Photocatalysis*" S. Ghosh,** International Virtual workshop under Indo-French SPARC Scheme of Ministry of Education on Recent advances and applications of conducting polymer nanostructures and nanocomposites, 23rd – 24th June 2021.

7. **"*Conducting polymer nanostructures: Ground-breaking materials for visible light driven photocatalysis*" S. Ghosh,** at Maulana Abul Kalam Azad University of Technology, West Bengal, 6 to 11th December 2021.

8. "***Radiation-induced synthesis of nanostructured materials for energy conversion application***"**S. Ghosh**, Discussion Meeting of Contemporary Aspects of Radiation Based Material & Chemical Sciences: The Macro, The Nano & The Lights organized by UGC-DAE CSR, Kolkata in the virtual mode which is dedicated to a felicitation for Ph. D. mentor Dr. Abhijit Saha, Centre-Director of the Kolkata Centre held on 28th January 2022.

9. "***Advanced nanomaterials for catalysis and energy: current status and future opportunities***"**S. Ghosh**, webinar organized by Department of Chemistry in collaboration with IQAC, Chandernagore College, West Bengal, held on 27th February 2022.

10. "***Material Research for Sunlight Driven Water Splitting Devices towards Sustainable Hydrogen Production***" **S. Ghosh**, 75 i-Connect (Industry Connect) events organized by The Ministry of Science & Technology and Ministry of Earth Sciences, Government of India, Theme: Energy (Conventional and Non-conventional) and Energy Devices (EED), iCEN73: Industry Meet to Discuss on the Role of Advanced Ceramic Processing for Energy Conversion & Device Applications (IACPED): An Approach to Greener India through Solid Oxide Cell, Photocatalysis and Battery Technologies, held on 10th August 2022.

11. "***Conducting Polymer Nanostructures for Visible Light-Driven Photocatalysis: Mechanisms, Challenges, and Design Strategies***" **S. Ghosh**, 3rd Edition of International Conference on Materials Science and Engineering, September 21-22, 2022, Virtual Event organized by MaterialScience, Magnusconference, USA. (Moderator)

12. "***A design to device pipeline for new photoactive materials***", **S. Ghosh**, Pre-Conference Skill Training in International Conference onEmerging Materials for Sustainable Development, October 10-11, 2022 organized by IEEE Nanotechnology (NTC) AcSIR CSIO Student Chapter.

13. **"*Surface Engineering of Functional Nanostructures for H_2 Generation*", S. Ghosh**, "Workshop on Materials for Energy and Sustainability" organized by The National Academy of Sciences (NASI), Jharkhand Chapter in association with CSIR National Metallurgical Laboratory, Jamshedpur, on 20th January, 2023.

14. "***Conducting Polymer-Based Heterojunction for Photocatalytic Hydrogen Generation***"**S. Ghosh**, The 3rd International MOMENTOM International conference, organized by the Institute for Sustainable Energy of the University Paris-Saclay in collaboration with the MSH Paris-Saclay from the 8th -10th March 2023 at the ENS Paris-Saclay, in France.

15. "***Electrochemistry of Nanostructured Materials: Implementation inEnergy Conversion Application***" **S. Ghosh**, International Conference on Women in Electrochemistry (ICWEC) organized by The Electrochemical Society of India (ECSI) during 7-8th April 2023 at IISc, Bengaluru.

16. **"*Solar-Driven Hydrogen Production: Recent Advances, Challenges, and Future Perspectives*" S. Ghosh**, National conference inEmerging Trends in Chemistry for Multi-disciplinary Applications (ETCMA 2023) organized by Sathyabama Institute of Science and Technology, Tamilnadu, during 09th October 2023.

17. "***Development of Next-generation Narrow-bandgap Organic Semiconductor Nanostructures for Solar Fuel Production and Environmental Remedy***" **S. Ghosh**, National conference in Emerging Smart Materials in Chemical Science (ESMCS-2024)" in association with the Indian Photobiology Society on the occasion of the "Diamond Jubilee" of the Society during 20-21stMarch 2024 at Guru Ghasidas Vishwavidyalaya, Bilaspur.

18. **S. Ghosh**, as a resource person to the Participants of the Refresher Course in Life Sciences (offline) organised by the UGC-Malaviya Teacher Training Centre (Formerly known as Human Resource Development Centre), Osmania University, Hyderabad, from 05.08.2024 to 20.08.2024 on the following topic(s) dated 16th August 2024. Lecture Topic(s): **1. Nanotechnology. 2. Nanoemulsions and Applications**.

19. **S. Ghosh**, as a resource person to the Participants of A Five-Day Online FDP on Emerging Trends in Chemistry for Multidisciplinary Applications (ETCMA 2024) 30th Sep to 05th Oct 2024, organized by Vellore Institute of Technology (VIT) Chennai, on the following topic(s) dated October 1, 2024 "***Designing Photoactive Materials for Sustainable Chemistry***".

20. *"**Unlocking the Power of Conducting Polymer Nanostructures: Revolutionary Materials for Visible Light-Driven Photocatalysis**"* **S. Ghosh,** during the Annual General Meeting of MRSI, held at UGC-DAE-CSR in Indore from December 3-6th, 2024. **(MRSI Medal lecture –2024)**

21. "***Next-generation Conducting Polymer Nanostructures for Visible Light-Driven Photocatalysis: Design Strategies, Mechanism and Challenges***" **S. Ghosh,** ISMC-2024 held at the DAE-Convention Centre, Mumbai, from 4-7thDecember, 2024. **(SMC Bronze Medal lecture – 2024)**

22. "***Bismuth-based nanostructured photocatalysts for green H_2 production***"**S. Ghosh**, 5th International Conference on Emerging Smart Materials in Applied Chemistry (ESMAC-2024) & 2nd KIIT-CRSI Seminar on Modern Trends in Chemical Sciences in collaboration with National Academy of Sciences, India (NASI) Local Chapter, held at KIIT, Bhubaneswar, December 20-22, 2024.

23. "***Polymeric Nanoformulation based Antimicrobial Agent: Efficacy against Resistant Bacteria and Biofilm Removal***" **S. Ghosh**, 2nd International Conference held on 27th - 28th February 2025 at Barasat, Kolkata, in association with Central Council for Research in Ayurvedic Sciences-Kolkata, and the Bioequivalence Study Centre-JU, Kolkata, India. (**Keynote Speech**)

24. "***Charge carrier traps in semiconductor heterojunction: An elegant strategy for solar-to-chemical energy conversion***" **S. Ghosh**, SAIS Symposium held on 17-18th March 2025 at School of Applied and Interdisciplinary Sciences (SAIS), Indian Association for the Cultivation of Science (IACS), Kolkata.

25. "***Multifunctional Semiconductor Nanostructures: Emerging Materials for Solar-to-Chemical Energy Conversion***" **S. Ghosh**, 8th International Conference on Nanoscience and Nanotechnology, held 24-26th March, 2025, SRM, Chennai.

26. ***Next-Generation Semiconductor Heterostructures Driving Solar Fuel Synthesis: Emerging Paradigms and Mechanistic Insights"*** **Srabanti Ghosh**, Dipendu Sarkar, Maitrayee Biswas, Jishu Pramanik, CRS Silver Medal Award and presentation of the Award Lecture in the Two-Day Symposium: Science Beyond Boundary: Invention, Discovery, Innovation and Society "Rasayan 21" held at the Manipal Academy of Higher Education (MAHE), Manipal, Karnataka during August 01-02, 2025.

27. "Advancement of Surface Engineered Semiconductor heterostructures in Photoelectrochemical devices for solar water splitting" **Srabanti Ghosh,** 13th Asian Conference on Electrochemical Power Sources, to be held in Bengaluru from January 11-14, 2026.

RESEARCH PAPER ON CONFERENCES AND SYMPOSIUM

Oral Presentation

1. ***"Synthesis and Spectral Studies of ZnS/Dendrimer Nanocomposites: Surface Charge Tunability and Size Dependent Luminescence Anisotropy"*** **S. Ghosh**, A. Priyam, and A. Saha, National Seminar on Nanoparticles and its Applications held at Jadavpur University, Kolkata, 8-9th August, 2008.

2. ***"Using Solvated Electron in Self organization of Functionalized Inorganic-Organic Hybrid Nanocomposite Assemblies"*** **S. Ghosh**, A. Datta, N. Biswas, A. Datta and A. Saha on Young Scientist Colloquium (2nd**MRSI-2009**) held at Saha Institute of Nuclear Physics, Kolkata, 30th October, 2009.

3. ***"Biofunctionalized Quantum dots as Fluorescence Probes for the detection of Vitamin B_{12} in aqueous solution"*** **S. Ghosh,** A. Saha, M. Ray and S. Acharya, on "MODERN TRENDS IN SPECTROSCOPY: Its Application in Chemistryheld at IACS, Kolkata, 3 & 4th February, 2011.

4. ***"Regulation of Enzyme Activity by Surface Functionalized Colloidal Nanoparticles"*** **S. Ghosh,** A. Chakrabarti, S. Acharya and M. Ray on XV National Conference on Surfactants, Emulsions and Bio-colloids (NATCOSEB-2011) held at Department of Chemistry, Tripura University, Tripura during 27-29th December, 2011.

5. "***Surface Functionalized Nanomaterials for Biomedical Application"*****S. Ghosh**, RBUCE-UP Mid Term Meeting held Saint-Aubin, France, 13th November, 2012.

6. ***"Shape Controlled Synthesis of Hybrid Nanostructure within Hexagonal Mesophases"*** **S. Ghosh**, S. Remita, L. Ramos, P. Beaunier and H. Remita, ColloqueNanohybrides 10 held at Porquerolles, France, 12-16th May, 2013.

7. ***"Hybrid Polymer Nanostructures in Swollen Hexagonal Mesophases: Application in Electrocatalysis"*** **S. Ghosh**, L. Ramos, P. Beaunier, A.-L. Teillout, P. de Oliveir and H. Remita, Nano-Hybrides, held at Université Paris-Diderot, Paris, France, 20-21th January, 2014.

8. "***Facile Photochemical Synthesis of Polymer Nanostructure:Promising Photocatalysts under Visible-light"*** **S. Ghosh,** K. A. Natalie, L. Ramos, S. Remita, A. Dazzi, A. Deniset-Besseau, and H. Remita,, Journées de Printemps du Groupe français de photochimie, photophysique et photosciences (GFP2P) held at Marseille, France, 15-16th May, 2014.

9. **"*Radiation chemistry as an alternative way for the synthesis of PEDOT conducting polymers"*** C. Coletta, Z. Cui, Y. Lattach, **S. Ghosh** and S. Remita,15th International Conference on Polymers & Organic Chemistry (**POC-2014**) held atUniversity of Timisoara, Romania, 10-13th June, **2014**.

10. ***"Électrocatalyse de Nanomatériaux à base d'Or et à Structure Contrôlée Synthétisés par Radiolyse"*** Y. Holade, A. Lehoux, **S. Ghosh**, H. Remita, B. Kokoh and T. W. Napporn, GDR OrNanoheld Paris, France 17thJune, 2014.

11. ***"Conducting Polymer Nanostructures: Promising Photocatalysts under Visible-Light"*** **S. Ghosh** and H. Remita, 19th International Conference on Semiconductor Photocatalysis& Solar Energy Conversion (SPASEC-19) held at Crowne Plaza Hotel, San Diego, California, USA, 16-20th, November, 2014. (Invited)

12. **"*Conducting Polymer Nanostructures for Photocatalysis under Visible-Light"*** H.Remita, **S. Ghosh**, N. A. Kouamé, L. Ramos, S. Remita, A. Dazzi, A. Deniset-Besseau, P. Beaunier, F. Goubard, P.-H. Aubert, The 20th International Conference on Semiconductor Photocatalysis and Solar Energy Conversion (SPASEC-20) held at San Diego, CA, USA, 16-19thNovember, 2015. (Invited)

13. ***"Conducting polymer nanostructures for photocatalysis under visible light"*** H. Remita, **S. Ghosh**, N. A. Kouamé, L. Ramos, S. Remita, A. Dazzi, A. Deniset-Besseau, P. Beaunier, F. Goubard, P.-H. Aubert, The XXIV International Materials Research Congress held at Cancun, Mexico, 16-21th August, 2015.

14. ***"Metal and Polymer Nanostructures Synthesized in Swollen Hexagonal Mesophases: Application in Fuel Cells"*** D. Floresyona, L. Ramos, **S. Ghosh**, A. -L. Teillout, P. de Oliveir and H. Remita, 2016 MRS Spring Meeting & Exhibit, held at Phoenix, Arizona, USA, 28th March-1st April, 2016.

15. ***"Conducting polymer nanostructures for photocatalysis under visible light"*** H.Remita, **S. Ghosh**, N. A. Kouamé, L. Ramos, S. Remita, A. Dazzi, A. Deniset-Besseau, P. Beaunier, F. Goubard, P.-H. Aubert, The XXIV International Materials Research Congress held at Cancun, Mexico, 15-18th August, 2016.

16. ***"Enhanced electrocatalytic activity of branched Pd nanostructures decorated conducting polymer nanofibers for alkaline fuel cells"*** **S. Ghosh**, S. Bera, N. Karmakar and R. N. Basu, International Conference on Functional Nano-Materials (IC-FNM 2016) Organized by CoE-TEQIP II and MND-SMSE, held at Indian Institute of Engineering Science and Technology, Shibpur, India, September 28-29th, 2016.

17. **"*Nanostructured conducting polymers for energy conversion applications: Implementation in photocatalysis and fuel cells"*S. Ghosh,** R. N. Basu,IUMRS- ICYRAM 2016**,** held at the Indian Institute of Science, Bangalore**,** 11th -15th December, 2016.

18. ***"Nanostructured conducting polymers for energy conversion applications: Utilisation in fuel cells and photocatalysis" S. Ghosh, R. N. Basu, International Conference on Energy*** Options for Tomorrow: Technology to Sustainability (ICEOT 2017) held on 17-19th April 2017, Kolkata.

19. ***"Conducting Polymer Nanostructures for Photocatalysis under Visible-Light"***H.Remita,D. Floresyona, **S. Ghosh,** N. A. Kouamé, L. Ramos, S.Remita, A. Dazzi, A. DenisetBesseau,F.Goubard, P.-H. Aubert, 2nd International Conference on New Photocatalytic Material for Environment, Energy and Sustainability (NPM-2), Ljubljana, Slovénie (July 2-6, 2017).

20. ***"Enhanced solar energy conversion by plasmonic metal modified conducting polymer nanostructure: Solar Water Splitting*"** **S. Ghosh,** D. Rashmi, S. Bera, R. N. Basu, National Symposium on Recent Advances in Chemistry and Industry In Commemoration of the 156th Birth Anniversary of Acharya Prafulla Chandra Ray on 2-3rd, August 2017 organized by The Indian Chemical Society and Department of Chemistry IIEST, Shibpur Howrah, India.

21. "***Porosity Controlled of PdPt Bimetallic Nanoballs for Highly Enhanced Ethanol Oxidation***" D. Floresyona, A. L. Teillout, **S. Ghosh**, P. De Oliveira, L. Ramos, H. Remita, International Material Research Conference (IMRC), Cancun, Mexique on 20-25th August, 2017.

22. **"*Conjugated Polymer Nanostructures for Photocatalysis under Visible-Light*"** H. Remita, X. Yuan, S. M. Marinho, **S. Ghosh**, A. Aukauloo, W. Leibl, S. Remita, F. Goubard, P.-H. Aubert,in the Symposium on Nanomaterials for Environmental Purification and Energy Conversion – SNEPEC, organized by Institute for Catalysis (ICAT), Hokkaido University, Sapporo, Japan, 20-21nd, February, 2018.

23. "***Conjugated Polymer Nanostructures for Photocatalysis under Visible-Light***"**(Key Note)**Remita, H.; Floresyona, D.; Yuan, X.; Mendes Marinho, S.; Ghosh, S.; Aukauloo, A.; Leibl, W.; Remita,

S.;Goubard, F.; Aubert, P.H. SNEPEC - Symposium on Nanomaterials for Environmental Purification and Energy Conversion, Sapporo- Japon, 20-21 février 2018.

24. **"*Conjugated Polymer Nanostructures for Photocatalysis Under Visible-Light*"**H.Remita, X. Yuan, S. M. Marinho, **S. Ghosh**, A. Aukauloo, W. Leibl, S. Remita, F. Goubard, P.-H. Aubert, **MRS Spring Meeting & Exhibit**, held at Phoenix, Arizona, USA, 2-6th April, 2018.

25. *"**Conjugated Polymer Nanostructures for Photocatalysis under Visible-Light**"*Remita, H.; Yuan, X.; Floresyona, D.; Mendes Marinho, S.; **Ghosh, S**.; Aukauloo, A.; Leibl, W.; Remita, S.; Goubard, F.; Aubert, P.-H." International Workshop on Photonics Polymer for Innovation, Suwa, Japan,14-18thOctober 2018.

26. **"*Conjugated Polymer Nanostructures for Photocatalysis under Visible-Light*"** (Plenary lecture)Remita, H.; Xiaojiao Yuan, X.; Floresyona, D.; Mendes Marinho, S.; **Ghosh, S**.; Aukauloo, A.; Leibl,W.; Remita, S.; Fabrice Goubard, F.; Aubert, P.-H.International Symposium on Solar Energy Materials, Kobe, Japan, 25-26th January 2019.

27. "***Enhanced Photocatalytic Activity of Metal Doped Bi_2WO_6 for Water Splitting under Visible Light***' by S. Bera, S. Samajdar, P. S. Das, **S. Ghosh***, at 85th Annual Session of Indian Ceramic Society on "Advances in Ceramics & Cement Technologies: Materials & Manufacturing" held on 13-14th December, 2021 virtually. (**Best Oral Presentation Award**)

28. "***Engineering of BiOX/$CuFe_2O_4$ heterostructures for sustainable fuel H_2 generation through water splitting***' by S. Bera, **S. Ghosh***, at 5th National Symposium on "Shaping the Energy Future: Challenges and Opportunities" (SEFCO-2021) held on 27th August, 2021 virtually.

29. "***Fabrication of a hierarchical Mo-Bi_2WO_6/Fe_2O_3 heterojunction via simultaneously metal doping and coupling with metal oxides for photoelectrochemical water splitting***" by S. Bera, V. R. Dhanak, **S. Ghosh***, at on day workshop onADVANCED ENERGY MATERIALS & DEVICES (AEMD), held on 3rd March 2022, virtually. (**Selected for Oral Presentation Award**)

30. "***Role of Efficient Charge Transfer at the Interface between Mixed Phase Copper-Cuprous Oxide and Conducting Polymer Nanostructures for Green Fuel Generation***" by Susmita Bera, Sourabh Pal, **Srabanti Ghosh***, *in the Celebration of the 161st Birth Anniversary of Acharya Prafulla Chandra Ray* organized by the Indian Chemical Society in association with the Bangladesh Chemical Society, Bangladesh and Department of Chemistry, Jadavpur University, Kolkata during July 30-31 & August 02-03, 2022.

31. "***Visible-Light Driven Enhanced Photocatalytic Water Splitting Activity of ZnO Nanocrystals by Simultaneously Metal Doping and Coupling with Polypyrrole Nanofibers***" by Sourabh Pal, Aritra Banerjee, **SrabantiGhosh***, *in the Celebration of the 161st Birth Anniversary of Acharya Prafulla Chandra Ray* organized by the Indian Chemical Society in association with the Bangladesh Chemical Society, Bangladesh and Department of Chemistry, Jadavpur University, Kolkata during July 30-31 & August 02-03, 2022.

32. "***A Hydrothermal Route for Constructing Lanthanum Orthoferrite/Reduced Graphene Oxide Nanocomposite towards Photocatalytic H_2 Generation***" Soumita Samajdar, Maitrayee Biswas, Susmita Bera, **Srabanti Ghosh*,***in the Celebration of the 161st Birth Anniversary of Acharya Prafulla Chandra Ray* organized by the Indian Chemical Society in association with the Bangladesh Chemical Society, Bangladesh and Department of Chemistry, Jadavpur University, Kolkata during July 30-31 & August 02-03, 2022. (**Best paper presentation award)**

33. "***Band Structure Engineering to Modulate the Charge Transfer Pathway in Heterostructures for Photocatalytic Water Splitting***" Susmita Bera, T. Maiyalagan, Rajendra Nath Basu, **Srabanti Ghosh***, in Young Scientists' Colloquium -2022, Organised by Materials Research Society of India (MRSI), Kolkata Chapter, on 16th December 2022.

34. **"*Role of different carbon supports in the enhancement of the photocatalytic water splitting activity of Sodium Bismuth Titanate*"** Soumita Samajdar and **Srabanti Ghosh*,** Workshop on Materials for Energy and Sustainability" organized by The National Academy of Sciences (NASI), Jharkhand Chapter in association with CSIR National Metallurgical Laboratory, Jamshedpur, on 20th January 2023. **(Third Prize)**

35. **"Fabrication of Mo-Bi_2WO_6/Conjugated Polymer Heterojunction for Enhanced Photoelectrochemical Water Splitting"** Dipendu Sarkarand **Srabanti Ghosh,** Workshop on Materials for Energy and Sustainability" organized by The National Academy of Sciences (NASI), Jharkhand Chapter in association with CSIR National Metallurgical Laboratory, Jamshedpur, on 20th January 2023. **(First Prize presentation award)**

36. ***"Multidimensional metal oxide perovskites at 2D Graphene interface as photocatalysts for green H_2 production*"** Soumita Samajdar, **Srabanti Ghosh*,** 37th National Science Day Celebration & Global Science for Global Wellbeing–Lab to the Land, organized by Indian Photobiology Society, 3rd – 5th March 2023. (**Best paper presentation award)**

37. **"*Visible Light Driven Semiconductor Type-II Heterojunction for Enhanced Green Hydrogen Production*"**Dipendu Sarkar, Pradip Sekhar Das, **Srabanti Ghosh***, 37th National Science Day Celebration & Global Science for Global Wellbeing–Lab to the Land, organized by Indian Photobiology Society, 3rd – 5th March 2023.

38. ***"Band Gap Tunability of ZnO Nanocrystals by Immobilizing Conjugated Polymer Nanostructures: Implementation in Photocatalytic Water Splitting"*** Sourabh Pal, Dipendu Sarkar, **Srabanti Ghosh***, 37th National Science Day Celebration & Global Science for Global Wellbeing–Lab to the Land, organized by Indian Photobiology Society, 3rd – 5th March 2023. (**Best oral presentation award**)

39. *"**Augmentation in photocatalytic performance of direct Z-scheme graphene based heterostructures with 3D/2D interface for H_2 evolution**"*Soumita Samajdar, Mamata Mohapatra, **Srabanti Ghosh***, 4th International Conference on Emerging Smart Materials in Applied Chemistry (ESMAC-2023) Interdisciplinary Science for Sustainability as a part of the Diamond Jubilee Celebration of Indian Photobiology Society, 18th–20th November 2023. **(Best oral presentation award)**

40. "***Metal oxides nanocrystals embedded polypyrrole nanohybrid: Exploring the role of interface in photocatalytic hydrogen generation***" Sourabh Pal, Pradip Shekhar Das, **Srabanti Ghosh***, International Conference on Exploring The Emerging World of Ceramic and Glass (ICEECG 2023), 87th Annual Session of the Indian Ceramic Society, 19th-21st December 2023, Kolkata.

41. "***Visible Light Driven Photocatalytic Reduction and Oxidation of Cr (VI) and Dye by Polyoxometalate loaded Reduced Graphene Oxide-Silver Vanadate nanocomposites***" by Soumita Samajdar,Gajiram Murmu, Sumit Saha and **Srabanti Ghosh***, National seminar on Industrial Ceramics: Challenges, Opportunities and Sustainability (ICCOS) organized by Indian Institute of Ceramics, during June 13-14, 2024.

42. "***Defect Enriched Multifunctional n-n-Type α-MoO_3/$BiFeO_3$ Heterostructure for Enhanced Photocatalytic Water Splitting and H_2S Gas Sensing***" Tanushri Das, **Srabanti Ghosh***, Mrinal Pal*, at MRSI Young Scientist Colloquium 2024, organized by the MRSI Kolkata Chapter on December 11, 2024. (MRSI Young Scientist Award 2024)

43. "***Constructing Interfacial Bond Modulated Direct Z-Scheme Heterostructure by Enwrapping Cu_2SnS_3 Quantum Dots on BiOCl Nanosheets for Efficient Photocatalytic H_2 Generation***" by Dipendu Sarkar and **Srabanti Ghosh***, International Conference on Advances in Sustainable Solutions for Energy Transitions (ASSET 2025), Organized by School of Energy Science and Engineering, Indian Institute of Technology Guwahati, held during January 02-04, 2025. **(Third Prize presentation award)**

44. "***Perovskite oxides as an efficient electrocatalyst for nitrogen to ammonia conversion: Role of oxygen evolution reaction kinetics***" by Jishu Pramanik, Jayanta Mukhopadhyay and **Srabanti Ghosh***, International Conference on Mining, Minerals, Metals and Materials (IC4M-2025), Organised Jointly by 4MSI and IIME (Bhubaneswar Chapter), Hotel Swosti Premium, Bhubaneswar during January 21-25, 2025.

45. "***Dual Active Site Mediated Photocatalytic H_2 Evolution Through Water Splitting using CeO_2/PPy/BFO Double Heterojunction Catalyst***", by Maitrayee Biswas and **Srabanti Ghosh***, International Conference On Mining, Minerals, Metals & Materials (IC4M-2025), CSIR-IMMT, Bhubaneswar held during January 21-25, 2025.

46. "***Polyoxometalate loaded reduced graphene oxide modified metal vanadate catalyst for photoredox reactions***" by Soumita Samajdar, Maitrayee Biswas and **Srabanti Ghosh***, International Conference On Mining, Minerals, Metals & Materials (IC4M-2025), CSIR-IMMT, Bhubaneswar during January 21-25, 2025.

47. "***Metallic Bi-Modified and Trap-State Mediated Photocatalytic H_2 Generation in Bi_2WO_6/$ZnIn_2S_4$ Heterojunctions***" by **Dipendu Sarkar** and **Srabanti Ghosh***, 39th National Science Day of India, Two day's online National Conference on "Photobiology Research towards Achieving Sustainable Development", organized by Indian Photobiology Society, Kolkata, India & Techno India University, Kolkata, India, during March 01-02, 2025. (**Young Scientist Award**)

48. ***"Engineering La-Doped Sr_2FeMoO_6/MoO_2 Nanohybrids with Oxygen Vacancies for Efficient Ambient Electrocatalytic Nitrogen Fixation"*** Jishu Pramanik, Jayanta Mukhopadhyay, **Srabanti Ghosh***, National Seminar on Ceramic and Glass Technology in the Modern Era: Challenges, Opportunities, and Sustainability (CGTME-2025), held at 08-09 August 2025, CSIR-CGCRI, KOLKATA. **(Best Poster Award)**

49. **"*Mechanistic insight into synergistic interaction of ABO_3 type perovskite with various 2D carbon supports for enhanced photocatalytic water splitting*"** Soumita Samajdar, Dipendu Sarkar, Tripti Bera, **Srabanti Ghosh**, National Seminar on Ceramic and Glass Technology in the Modern Era: Challenges, Opportunities, and Sustainability (CGTME-2025), to be held at 08-09 August 2025, CSIR-CGCRI, KOLKATA. **(Best Poster Award)**

50. **"*Impact of ultrasonication power on synthesis of bulk scale boron nitride nanosheet for structural application*"** Shaona Chatterjee, M. Biswas, **Srabanti Ghosh**, S. Chakraborty, S. Mandal, I. Srikanth, National Seminar on Ceramic and Glass Technology in the Modern Era: Challenges, Opportunities,

and Sustainability (CGTME-2025), held at 08-09 August 2025, CSIR-CGCRI, KOLKATA. **(Best Poster Award)**

INTERNATIONAL (Poster)

1. ***"Synthesis and spectral studies of CdTe/dendrimer nanocomposites"*** **S. Ghosh**, A. Priyam, A. Chatterjee and A. Saha on Frontiers of Radiation and Photochemistry held at Kerala, from 8th to 11th February 2007.

2. ***"Degree of Supersaturation: An Efficient Tool to Control Size Distribution in Colloidal Semiconductor Nanocrystals"*** A. Priyam, **S. Ghosh**, S. C. Bhattacharya and A. Saha*, Conference on Trend in Nanotechnology held at Spain, from 3rd to 7th September, 2007.

3. ***"Size Tunability of CdTe Nanocrystals in Dendrimer Matrix and Temperature Dependent Focusing of Size Distribution"*** **S. Ghosh**, A. Priyam and A. Saha, International Conference on Recent Trend in Colloidal and interface held at Indian Statistical Institute, Kolkata from 3rd to 7th November, 2007.

4. Another Paper under the title ***"Degree of Supersaturation: An Efficient Tool to Control Size Distribution and Photoluminescence Efficiency in Colloidal Quantum Dots"*** A. Priyam, **S. Ghosh** and A. Saha**(Selected for best poster award).**

5. ***"Size dependent luminescence quenching of CdTe quantum dots by Cu(II) ions: A step towards development of Cu(II) sensors in physiological conditions"*** **S. Ghosh**, A. Priyam and A. Saha, on Trombay Symposium on radiation and photochemistry (**TSRP-2008**) held at Yashada, Pune 7th to 13th January, 2008.

6. ***"Synthesis and spectral studies of ZnS/Dendrimer nanocomposites"*** **S. Ghosh**, A. Priyam, and A. Saha, International Conference on Nano Science and Technology (**ICONSAT-2008**) held at Chennai, Tamil Nadu, 27th to 29th February, 2008.

7. ***"Radiation induced self-organization of functionalized inorganic-organic hybrid nanocomposite"*** **S. Ghosh**, A. Datta, N. Biswas, A. Datta and A.Saha, on **APSRC-TSRP-2010** held at Lonavala, Mumbai 14th to 17th September, 2010. **(Best Poster Award)**

8. Another Paper under the title ***"Quantum Dot based probing of mannitol: An implication in nano-diagnostics"*** D. Ghosh, **S. Ghosh** and A. Saha.

9. ***"Semiconductor/Dendrimer Nanocomposites as new generation antimicrobial agents: Implications in therapeutics"*** **S. Ghosh**, D. Ghosh, P. K. Bag, S. C. Bhattacharya and A. Saha, on **ICFANT-2010** held at Jadavpur University9th to 11th December, 2010**.**

10. Another paper titled***"Biomimetic synthesis of BSA capped CdS QDs"*** D. Ghosh, **S. Ghosh** and A. Saha.

11. Another paper titled***"γ-Irradiation route to photoluminescent Selenium-based QDs under ambient conditions"*** A. Datta, Y. N. Rao, **S. Ghosh**,A. Saha.

12. ***"Biofunctionalized quantum dots as fluorescence probes for the detection of Vitamin B_{12} in aqueous solution"*** **S. Ghosh**, S. Mondal and A. Saha on **NANOS-2010** held at Gitam University, Vishakhapatnam, Andhra Pradesh, 17th to 19th December 2010.

13. ***"Role of protein conformation in biomimetic synthesis of semiconductor nanoparticles"*** D. Ghosh, S. Mondal, **S. Ghosh** and A. Sahaon 2nd International Conference on 'Advanced Nanomaterials and Nanotechnology (**ICANN-2011**) organized jointly by the Department of Physics and Centre for Nanotechnology held at the Indian Institute of Technology Guwahati, 8th to 10th December 2011**.**

14. ***"Modulation of enzyme activity by nanoparticles: Suppress growth of carcinoma and sarcoma Cells"*** **S. Ghosh**, A. Chakrabarti, S. Acharya and M. Ray, on **TSRP-2012** held at Mumbai 4th to 7th January 2012.

15. ***"Polymer based Nanoformulation of Methylglyoxal as an Antimicrobial Agent: Efficacy against Resistant Bacteria"*** **S. Ghosh,** M. Ray and S. Acharya, International Conference on Recent Advances in Chemical & Physical Biology,held at Saha Institute of Nuclear Physics, Kolkata, 5th -7thMarch, 2012.

16. ***"Conducting Polymer Nanostructures and Hybrid Nanomaterials Synthesized in Self-Assembled Matrices"*** **S. Ghosh**, S. Remita, L. Ramos, A. Dazzi, A. Deniset-Besseau, P.Beaunier, F. Goubard, P.-H. Aubert and H. Remita, 2013 **MRS Fall Meeting & Exhibit** held at Boston, Massachusetts, 1st -6th December, 2013.

17. ***"Conducting Polymer Nanostructures: Promising Photocatalysts under Visible-light"*** **S. Ghosh**, A. Natalie Kouamé, A. Dazzi, A. Deniset-Besseau and H. Remita, 2014 XXIII INTERNATIONAL MATERIALS RESEARCH CONGRESS **(IMRC)** held at Cancun, Mexico, August, 17th-21th, 2014.

18. ***"Conducting Polymer Nanostructures as Promising Photocatalysts under Visible-Light"*** **S. Ghosh**, K. A. Natalie, L. Ramos, S. Remita, A. Dazzi, A. D. Besseau, F. Goubard, P. –H. Aubert and H. Remita, International Workshop Nanomaterials for Energy and Environmentheld at Universite-Paris Saclay, Paris, France, March 18th-20th, 2014.

19. ***"Conducting polymers and semiconductor nanoparticles for solar light harvesting"*** L. Hernández-Adame, **S. Ghosh**, and H. Remita, International Workshop onPolymer Photocatalysts for Solar Fuels Synthesis, held at University College London – Department of Chemistry, April 13-14th, 2016.

20. ***"Significantly Enhanced Visible-Light-Induced Photocatalytic Performance of Hybrid Conducting Polymer Functionalized ZnONanoparticles"*****S. Ghosh**, R. N. Basu, International Conference on ceramic glass and refractory-Emerging Innovation, International conference on ceramic glass and refractory-Emerging Innovation, INDIAN **CERAMIC SOCIETY**, 80th annual session at Hyderabad, December 13th-15th, 2016.

21. ***"Enhanced Electrocatalytic Activity of Conducting Polymer Supported Pt Nanoparticles for Anodic Oxidation of Methanol in Alkali"*** S. Bera, **S. Ghosh**, R. N. Basu, International conference on ceramic glass and refractory-Emerging Innovation, **INDIAN CERAMIC SOCIETY**, 80th annual session at Hyderabad, December 13th -15th, 2016.

22. ***"Heterojunction construction between Bi_2S_3 nanowires and crystalline ZnO nanoparticles for enhanced photocatalysis under visible light"*** S. Bera, **S. Ghosh**, R. N. Basu, International Conference onEnergy Options for Tomorrow: Technology to Sustainability (**ICEOT 2017**)held on 17-19th April 2017, Kolkata. **(Best Poster Award)**

23. ***"Conjugated Polymer Nanostructures as Highly Active Photocatalysts under Solar Light"***D.Floresyona, H. Remita, F.Goubard, P. H. Aubert, I.Lampre, A. Dazzi, **S.Ghosh,** S.Remita, L.Ramos, International Material Research Conference (MRS), Cancun, Mexique on 20-25th August, 2017.

24. ***"A Ternary Plasmonic Cu-Ag/$AgVO_3$Heterostructured Photocatalyst for Solar Photocatalytic H_2Generation"***S.Bera, **S. Ghosh** and R. N. BasuCelebrating the 125th birth anniversary of Professor Satyendranath Bose, International Conference on Complex and Functional Materials(**ICCFM-2018**) held during 13th-16th December 2018, organized by S. N. Bose National Centre for Basic Sciences, Kolkata.

25. ***"Visible-Light Driven Photocatalytic Activity of MoS_2 Based Nanocomposites for H_2Generation"***A. Kumari, S. Bera, **S. Ghosh**, R. N. Basu, International Conference on Complex and Functional Materials(**ICCFM-2018**) held during 13th-16th December, 2018, organized by S. N. Bose National Centre for Basic Sciences, Kolkata.

26. **"*Hybrid SnO_2/Graphene nanostructures as Anode Materials for Lithium Ion Batteries*"**A. Kumar, **S. Ghosh**, R. N. Basu, International Conference on Complex and Functional Materials(**ICCFM-2018**) held during 13th-16th December, 2018, organized by S. N. Bose National Centre for Basic Sciences, Kolkata.

27. **"*Carbon Dioxide Capture in Layered Double Hydroxide Nanosheets*"** P. Adhya, **S. Ghosh** and R. N. Basu, International Conference on Complex and Functional Materials (**ICCFM-2018**) held during 13th-16th December 2018, organized by S. N. Bose National Centre for Basic Sciences, Kolkata.

28. *"**Unveiling the Origin of Enhanced Visible Light Driven Photocatalytic Hydrogen Generation in Cu_2SnS_3 Quantum Dots Implanted on BiOCl Nanosheets**"*, Dipendu Sarkar, **Srabanti Ghosh**, Emerging Smart Materials in Applied Chemistry (ESMAC-2023) & Interdisciplinary Science for Sustainability Diamond Jubilee Celebration of Indian Photobiology Society, 18th-20th November 2023. **(Best Poster Award)**

29. *"**Visible Light Driven Z-Scheme Heterojunction Semiconductor for Enhanced Green Hydrogen Production***", Dipendu Sarkar, Sourabh Pal, Pradip Sekhar Das, **Srabanti Ghosh**, International Conference on Exploring The Emerging World of Ceramic and Glass (ICEECG 2023), 87th Annual Session of the Indian Ceramic Society, 19th-21st December 2023, Kolkata.**(Best Poster Award)**

30. *"**Unveiling the role of ceramic based perovskite $Na_{0.5}Bi_{0.5}TiO_3$ at graphene interface for enhanced photocatalytic water splitting***"** Soumita Samajdar, **Srabanti Ghosh**, Research Advancements and Industrial Challenges in Glass and Ceramics (RAICGC 2025) to be held at IIT Bombay, November 27-29, 2025.

31. "***Role of Boron nitride nano sheet-metal oxide interface in photo- electro chemical water splitting***" Shaona Chatterjee, M. Biswas, **Srabanti Ghosh**, S. Chakraborty, Research Advancements and Industrial Challenges in Glass and Ceramics (RAICGC 2025) to be held at IIT Bombay, November 27-29, 2025.

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32. **"*Synthesis of nanoparticles of titanium oxide using sol gel chemistry*"** M. Sharma, **S. Ghosh**, S. Bhasin and N. Chandra, National seminar on materials for advanced technologies, NASMAT–2006, held at Pune, India, 23rd -25th January 2006.

33. Another Paper under the title "***A novel process for making $Ni(OH)_2$ Nanoparticles at ambient temperature***" S. Bhasin, **S. Ghosh,** and N. Chandra.

34. **"*A sensitive method for the detection of ascorbic acid based on fluorescence quenching of CdS/Dendrimer nanocomposites*"** **S. Ghosh**, and A. Saha on Material Research Society of India (**MRSI-2009**) held at Saha Institute of Nuclear Physics, Kolkata, 10th to 13th February2009.

35. **"*Synthesis and Characterization of dendrimer based CdS Nanocomposite under Ambient Conditions through γ-Irradiation Route*"** **S. Ghosh**, A. Datta and A. Saha on National Symposium on Radiation

and Photochemistry (**NSRP-2009**) held at KumaunUnivesity, Nainital 12th to 14th March, 2009. **(Best poster Award)**

36. **"*Immunotherapeutic prospects of polymer conjugated nano formulation of methylglyoxal against cancer*"**A. Chakrabarti and **S. Ghosh** on **80thAnnual Meeting of the Society of Biological Chemists**, (India), held at Central Institute of Medicinal and Aromatic Plant, Lucknow, 12th to 15th November, 2011.

37. **"*Surface Functionalized Nanomaterials for Application in Cancer Biology and Medicine*" S. Ghosh**, **M. Ray and S. Acharya** on Young Scientist Colloquium (**MRSI-2012**) held at CSIR-Central Glass and Ceramic Research Institute, Kolkata, 8th August, 2012. **(Best poster Award)**

38. ***"Visible-light-driven enhanced photoresponse of Bi_2S_3/ZnO heterostructures: Photocatalytic hydrogen evolution and photoelectrochemical performance"*** S. Bera, **S. Ghosh**, R. N. Basu, National Symposium on Recent Advances in Chemistry and Industry In Commemoration of the 156th Birth Anniversary of Acharya Prafulla Chandra Ray on August 02 & 03, 2017 organized by The Indian Chemical Society 92, and IIEST, Shibpur Howrah, India. (**First Prize in poster presentation**)

39. ***"Synthesis of Au-$BiFeO_3$ heterostructured photocatalysts for visible light driven photocatalytic hydrogen generation"*** S. Bera, **S. Ghosh**, R. N. Basu, RECENT TRENDS IN CONDENSED MATTER PHYSICS, on 31st October to 3rd November 2017, organized by Bose Institute, Kolkata.

40. ***"Highly active multimetallic nano alloys embedded in conducting polymer: Implementation in fuel cells and photocatalysis"*** **S. Ghosh**, S. Bera, R. N. Basu, MRSI National Symposium on "Advances in Functional and Exotic Materials" held at SRM Hotel during 14 -16th February 2018, organized by **MRSI–Trichy Chapter** and the Centre for High Pressure Research, Bharathidasan University, Tiruchirappalli.

41. ***"$BiFeO_3$ Perovskite based heterostructured photocatalysts for photocatalytic hydrogen generation"*** S. Bera,**S. Ghosh**, R. N. Basu, "Advances in Functional and Exotic Materials" held at SRM Hotel during 14 -16th February 2018, organized by **MRSI–Trichy Chapter** and the Centre for High Pressure Research, Bharathidasan University, Tiruchirappalli.

42. ***"Use of Heterogeneous Photocatalysts to Produce Hydrogen"*** by S. Bera, **S. Ghosh**, R. N. Basu at the Young Scientist Colloquium-2019, MRSI, Kolkata Chapter held on 17th September, 2019 at Saha Institute of Nuclear Physics, Kolkata.

43. ***"Solar Light Driven Photocatalytic H_2 Generation by MoS_2/Bi-TiO_2 Nanocomposites"*** by S. Bera, **S. Ghosh**, R. N. Basu at the 83rd Annual Session of Indian Ceramic Society (InCerS) held on 11th-12th December, 2019 at CSIR-National Institute for Interdisciplinary Science and Technology (NIIST), Thiruvananthapuram, Kerala, India.

44. ***"Temperature Dependent Phase Transition of $AgVO_3$ and its effect on Photocatalytic Activity"*** by S. Bera, **S. Ghosh**, R. N. Basu at the 22nd DAE – BRNS Workshop & Symposium on Thermal Analysis (THERMANS- 2020) held on 28thJanuary -1stFebruary, 2020 at Multipurpose Hall, BARC Training School Hostel Anushaktinagar, Mumbai, India.

45. ***"Fabrication of BiOCl/$CuFe_2O_4$ Heterostructures for Highly Efficient Photocatalytic Applications"*** by S. Bera, **S. Ghosh**, R. N. Basu at the RECENT TRENDS in CATALYSIS (RTC2020) held on February 26-29th, 2020, NIT Calicut, Kozhikode, India.

46. "***Development of Bi modified TiO_2/MoS_2 Nanocomposites for Visible Light Driven Photocatalytic H_2Generation***"by S. Bera, **S. Ghosh**, R. N. Basu at the 2nd Indian Materials Conclave and 31st AGM of MRSI (MRSI-AGM), February 11-14, 2020, CSIR-CGCRI, Kolkata.

47. "***Enhanced Photoelctrochemical Water Splitting by Bi doped WO_3 Semiconductor***" by P. Hajra, **S. Ghosh**, R. N. Basu, at the 2nd Indian Materials Conclave and 31st AGM of MRSI (MRSI-AGM), February 11-14, 2020, CSIR-CGCRI, Kolkata.

48. "***Synthesis of Manganese, Niobium and Tantalum co-doped Perovskite Cathode of Low-Temperature Solid Oxide Fuel Cell***" by A. Banerjee, Q. A. Islam, **S. Ghosh**, R. N. Basu, at the 2nd Indian Materials Conclave and 31st AGM of MRSI (MRSI-AGM), February 11-14, 2020, CSIR-CGCRI, Kolkata.

49. ***"Solution-based Synthesis of Metal oxide based 2DNanocomposite for High-performance Photocatalytic Application and H_2 Generation"***Soumita Samajdarand **Srabanti Ghosh**, Organized by DAE-BRNS 9th Interdisciplinary Symposium on Materials Chemistry (ISMC-2022) during Dec. 7-10, 2022 at DAE Convention Centre, Anushakti Nagar, Mumbai.

50. "***Band Structure Engineering to Modulate the Charge Transfer Pathway in Heterostructures for Photocatalytic Water Splitting***" Susmita Bera, T. Maiyalagan, Rajendra Nath Basu, **Srabanti Ghosh**,Young Scientists' Colloquium, 16th December, 2022, Organized by Materials Research Society of India (MRSI), Kolkata Chapter.

51. "***Visible Light Driven Semiconductor Type-II Heterojunction for Enhanced Green Hydrogen Production"*** by Dipendu Sarkar, Pradip Sekhar Das and **Srabanti Ghosh**, 37th National Science Day Celebration & National Seminar on "Global Science for Global Wellbeing – Lab to the Land" (GSGWLL-2023), organized by Indian Photobiology Society (IPS), Kolkata during 03 – 05 March, 2023.

52. "***Superior photocatalytic performance for green hydrogen production using graphene-based nanocomposites from spent graphite powder– An approach towards Waste to Wealth technology***" by Soumita Samajdar, Mamata Mohapatra and **Srabanti Ghosh***, YSC-2023 organized by MRSI, in collaboration with IIT-Shibpur on 1st December, 2023.

53. "***Visible Light Driven Photocatalytic Reduction and Oxidationof Cr (VI) and Dye by Polyoxometalate loaded Reduced Graphene Oxide-Silver Vanadate nanocomposites***" by Soumita Samajdar,Gajiram Murmu, Sumit Saha and **Srabanti Ghosh***, National seminar on Industrial Ceramics: Challenges, Opportunities and Sustainability (ICCOS) organized by Indian Institute of Ceramics, during June 13-14, 2024.

54. "***Bi-S Bond-Driven Interfacial Z-Scheme Heterostructures: Cu_2SnS_3 Quantum Dots Enwrapped BiOCl Nanosheets for Solar Water Splitting***" by Dipendu Sarkar and **Srabanti Ghosh***, Materials Research Society of India (MRSI) Young Scientists Colloquium (YSC)-2024, Kolkata Chapter, Ramakrishna Mission Vidyamandira, Belur Math, Howrah, on 11th December, 2024.

55. "***Fabrication of Graphite Carbon Nitride Supported Metal Ferrite Nanocomposites for Enhanced Photocatalytic Performance towards Hydrogen Generation***", by Maitrayee Biswas, Soumita Samajdar and **Srabanti Ghosh***, Emerging Trends in Advanced Materials organized by the Functional Materials & Devices Division as part of Platinum Jubilee Celebrations, CSIR-CGCRI, Kolkata during 6th-7th February, 2025.

56. "***Enhanced electrocatalytic ammonia synthesis under ambient conditions through oxygen vacancy engineering in perovskite catalysts***" by Jishu Pramanik, Jayanta Mukhopadhyay, **Srabanti Ghosh***, Emerging Trends in Advanced Materials organized by the Functional Materials & Devices Division as part of Platinum Jubilee Celebrations, CSIR-CGCRI, Kolkata during 6th-7th February, 2025. **(Best Poster Presentation Award)**

57. "***Boosting Photocatalytic H_2 Generation with Trap-State Engineering and Metallic Bi-Modified $Bi_2WO_6/ZnIn_2S_4$ Heterojunctions***" by Dipendu Sarkar and **Srabanti Ghosh***, Emerging Trends in Advanced Materials organized by the Functional Materials & Devices Division as part of Platinum Jubilee Celebrations, CSIR-CGCRI, Kolkata during 6th-7th February, 2025.

58. "***Insight into the role of reduced graphene oxide as electron-mediator for superior photoredox reactions***" by Soumita Samajdar, Maitrayee Biswas and **Srabanti Ghosh*** Emerging Trends in Advanced Materials organized by the Functional Materials & Devices Division as part of Platinum Jubilee Celebrations, CSIR-CGCRI, Kolkata during 6th-7th February, 2025.

59. Tanushri Das, **Srabanti Ghosh*** and Mrinal Pal, Bandgap engineered n-n type *Heterostructure of α-$MoO_3/BiFeO_3$ for enhanced charge transfer induced water splitting and H_2S Gas sensing, ETAM*-**2025**. Emerging Trends in Advanced Materials organized by the Functional Materials & Devices Division as part of Platinum Jubilee Celebrations, CSIR-CGCRI, Kolkata during 6th-7th February, 2025.

60. "***ABO_3-type perovskites at 2D interface for photocatalytic water splitting***" by **Soumita Samajdar**, and Srabanti Ghosh, ChemComm 60th Year Symposium – Indian Association for the Cultivation of Science, Kolkata, on 22nd November 2024.

61. "***CeO_2/PPy/BFO a double Heterojunction Catalyst for Efficient Photocatalytic H_2 Evolution Through Water Splitting***", by Maitrayee Biswas and **Srabanti Ghosh**, ChemComm 60th Year Symposium – Indian Association for the Cultivation of Science, Kolkata, on 22nd November, 2024.

62. "***Direct Z-Scheme of $BiOCl/Cu_2SnS_3$ Heterojunction Mediated by Bi-S Bond and Internal Electric Field for Enhanced Photocatalytic H_2 Generation***" by Dipendu Sarkar and **Srabanti Ghosh**, ChemComm 60th Year Symposium – Indian Association for the Cultivation of Science, Kolkata, on 22nd November 2024.

63. "***Indirect Z-Scheme Polyoxometalate Loaded Reduced Graphene Oxide (RPOM)-Metal Vanadate Composite Photocatalysts for Highly Efficient Pollutant Degradation***" by Soumita Samajdar, Maitrayee Biswas and **Srabanti Ghosh**, 10th Interdisciplinary Symposium on Materials Chemistry (ISMC-2024), Organized by DAE-BRNS, Mumbai held during December 04-07, 2024.

64. "***Z-Scheme Ferrite Nanoparticle/Graphite Carbon Nitride Nanosheet Heterojunctions for Photocatalytic Hydrogen Evolution***", by Maitrayee Biswas, Soumita Samajdar and **Srabanti Ghosh**, 10th Interdisciplinary Symposium on Materials Chemistry (ISMC-2024), Organised by DAE-BRNS, Mumbai, held during December 04-07, 2024.

65. ***"Synthesis of h-Boron nitride nanosheet through liquid phase exfoliation technique for hypersonic application"*** Shaona Chatterjee, M. Biswas, **Srabanti Ghosh**, S. Chakraborty, S. Mandal, I. Srikanth, jointly organized by the Department of Ceramic Engineering and the InCerS Student Chapter, NIT Rourkela held during April 03-05, 2025.

66. **"*Interface-Engineered S-Scheme $Bi_2WO_6/ZnIn_2S_4$ Heterojunctions with Built-In Electric Field for Enhanced Solar-Driven Hydrogen Evolution*"** Dipendu Sarkar, **Srabanti Ghosh,** 14th Prof S.P. Sengupta Memorial Function concurrently with One-day Seminar on Multifunctional Materials: Technology & Applications, organized by MRSI, Kolkata, August 08, 2025.