Dr. Soumen Sardar,
M.Sc, Ph.D
Polymer Technologist

Materials and Polymer Research Scientist with almost 2 years of academic in University of Calcutta and industrial experience in Indian Rubber Manufacturers Research Association (IRMRA) in the field of polymer and rubber. Looking for an opportunity and to take new responsibilities in the versatile field of Polymer, Rubber, Fiber, Paint, Coating, Adhesive & Sealants industries.

Contact

Address
- Dr. Soumen Sardar,
- **Permanent Address**-Vill+Post-Dingal, Debra, Paschim Medinipur, 721160, West Bengal
- **Present Address:-** IRMRA, Plot No- 254/1B, Road No.16U, Wagle Industrial Estate, Thane (W)-400604, Maharashtra, India

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- +91-7044203085/9051326046

Email
- pstss77@gmail.com

LinkedIn
- https://www.linkedin.com/in/dr-soumen-sardar-648543207/

Google Scholar
- https://scholar.google.com/citations?user=0Ydvs90AAAAJ&hl=en

Skills
- Product development
- Report writing and submission
- Project management
- Guiding a research group
- Organizing conference

Research Interest
- Polymer and polymer composites
- Adhesive and Sealants
- Rubber compounding and application
- Polyurethane
- Conductive polymers synthesis
- Bio-polymers Synthesis for water tretment
- Synthesis and application of graphene and graphene oxide quantum dots

Summary
- Developed different conducting polymer composite
- Published 14 article in International Journals
- Developed different bio-polymer for waste water treatment
- Actively connected with University of Calcutta for research purpose
- Published three book chapters
- Qualified CSIR-UGC NET exam in 2013
- Ph.D on Polymer from University of Calcutta

Work Experience
- **November 2020-Till date**, **Project Fellow** at Indian Rubber Manufacturers Research Association (IRMRA)

Key role:
- Development of Soft and Hard Polyurethane for leak proof structures in Tyre.
- Working on bio-based adhesive and sealants for construction application.
- Working on different types of rubber formulations, product and their application, guidence students
- Documentation of BIS and NABL

- **March 2020-October 2020, Research Associate** at University of Calcutta

Key role:
- Worked to develop various bio-polymeric material for waste water treatment
- Developed graft co-polymer for heavy metal detection and flocculation application
- Guided B.Tech and M.Tech students
- Monitor different laboratory related administrative work
- Paper writing and project submission for funding

Education

- **Ph.D in Polymer Science and Technology**, **University of Calcutta (2014-2021)**

Thesis: Development of light emitting polymer from various conducting polymers and their derivatives

Mentor: Dr. Abhijit Bandyopadhyay, Professor

- **M.Sc in** Chemistry and Chemical Technology Vidyasagar University (2012-2014)

- **B.Sc** in Chemistry, Vidyasagar University (2009-2012)

- **Higher Secondary**- 2009

- **Secondary**-2007

Software

- Origin
- Photoshop
- Image J
- Chem draw
- MS office

Honours and awards

- CSIR-UGC NET in 2013 with rank 88

Key Achievements

- Developed easy synthesized and cheap materials for lighting application.
- Developed different types of bio-polymer for waste water treatment and heavy metal detection.
- Completed different lab scale small project.
- Published research article in highly reputed International Journals.
- Qualified **CSIR-UGC** national eligibility test in 2013 with rank 88.

Publications

- **Soumen Sardar** and Abhijit Bandyopadhyay, Peer Review Journal (2021) IF-**1.44**
- **Soumen Sardar**, Indranil Roy, Subhadeep Chakraborty, Abhisek Brata Ghosh, and Abhijit Bandyopadhyay, Electrochimica Acta (2020) Elsevier IF-**6.901**
- **Soumen Sardar** and Atanu Jana, Matter (Cell Press) 3 (2020) IF-**15.589**
- **Soumen Sardar,** Atanu Jana, Avik Mukherjee, Anamika Dhara, Abhijit Bandyopadhyay, New Journal of Chemistry (2020) RSC IF-**3.591**
- **Soumen Sardar**, Riya Koley, Uttam Kumar Ghorai, Abhijit Pal, Srijoni Sengupta, Indranil Roy and Abhijit Bandyopadhyay, Journal of Molecular Structure (2018) Elsevier IF-**3.196**
- **Soumen Sardar**, Abhijit Pal, Uttam Kumar Ghorai, Srijoni Sengupta, Tamalika Das and Abhijit Bandyopadhyay, International Journal of Engineering Science and Mathematics (2018) IF:-**6.765**
- T Moremedi, L Katata-Seru, **Soumen Sardar**, A Bandyopadhyay, E Makhado, MJ Hato, International Journal of Materials and Metallurgical Engineering (2020) IF-XX
- Tamalika Das, Srijoni Sengupta, Abhijit Pal, **Soumen Sardar**, Nilanjan Sahu, Naisargik Lenka, Kishore C. S. Panigrahi, Luna Goswami and Abhijit Bandyopadhyay, Carbohydrate Polymers (2019) Elsevier IF:-**9.381**
- Tamalika Das, Srijoni Sengupta, Animesh Jana, Abhijit Pal, Indranil Roy, **Soumen Sardar**, Nayan Ranjan Saha, Sourja Ghosh, Abhijit Bandyopadhyay, Reactive and Functional Polymers (2019) Elsevier IF-**3.975**
- Abhijit Pal, Tamalika Das, Srijoni Sengupta, **Soumen Sardar**, Sudipta Mondal and Abhijit Bandyopadhyay, Carbohydrate Polymers (2020) Elsevier IF:-**9.381**

Instruments

- Spectroscopy (UV, FTIR, XPS, PL, NMR,DLS)
- Microscopy (SEM, TEM)
- Thermal (TGA, DSC & DMA)
- Powder X-ray diffraction (XRD)
- Mechanical (UTM, MDR, Hardness, RPA)
- Mooney viscometer, Brookfield Viscometer
- Ozone Chamber
- Hydrothermal synthesis of quantum dot
- Pyrolysis Reactor
- Breakdown voltage
- High Precision Magnetic Stirrer
- Rotary Evaporator
- Lyophilizer
- Highly sensitive pH meter

Conference

- Recent Trends in Research and Teaching in Chemical Science, "Parcipant" 2012
- International Rubber Conference, "Participant" 2015, Chennai
- Polsolvate "Poster Presentation" 2016, Kolkata.
- UGC Sponsored National Level Seminar, "Oral Presentation" 2016, Howrah.
- International Conference on Chemical Engineering and Advanced Polymeric Materials (ICEAPM), "Oral Presentation"2016, Mesra, Ranchi, India.
- National Rubber Conference, "Poster"2018, Kolkata
- Rubtech Asia Expo, "Oral", 2018, Bengaluru
- IMST, Poster, 2018, Amity University, Kolkata

Book chapters

- Nanofabrication Techniques for Semiconductor Chemical Sensors, Handbook of Nanomaterials for Sensing Applications (2020) Elsevier, Mona Mittal, **Soumen Sardar** and Atanu Jana
- Nanoengineered Polysaccharide-Based Adsorbents as Green Alternatives for Dye Removal from Wastewater, Novel Nanomaterials (2021), Hugues Kamdem Paumo, Lebogang Katata-Seru, Tshepiso Moremedi, Mpitloane Joseph Hato, **Soumen Sardar**, Abhijit Bandyopadhyay
- Renewable Energy: Analysis, Resources, Applications, Management and Policy, AIP (2021) (Revision Submitted), **Soumen Sardar**, Subhadeep Chakraborty, Abhijit Bandyopadhyay
- Flocculation of Waste Water Using Architectural Copolymers: Recent Advancement and Future Perspective **(Submitted),** Subhadeep Chakraborty, **Soumen Sardar** and Abhijit Bandyopadhyay

Personal

- Dr. Soumen Sardar,

Father's Name- Khagendra Nath Sardar,

- Date of Birth-25th October, 1991,
- Gender-Male
- Marital Status-Married
- Language- Bengali, English, Hindi

References

- Dr. Abhijit Bandyopadhyay, Professor, University of Calcutta, Email: abhijitbandyopadhyay@yahoo.co.in, Phone: +91 9433186957
- Dr. Dipankar Chattopadhyay, Professor, University of Calcutta,Email: dipankar.chattopadhyay@gmail.com, Phone: +91 9433379034

Declaration

I hereby declare that all the details mentioned above are true to the best of my knowledge.

Date: July, 2021

Soumen Sardar

Place: Thane

Dr. Soumen Sardar