

Name- Krishanu Ghosal

Home Address

Kantapur, Koleybagan,
Chandannagore-712136,
West Bengal, India

Marital Status- Married

Nationality- Indian

Phone No-8240626172

Date of Birth- 27/07/1993

Language Known- English, Hindi, Bengali

Work Experience

SERB funded project at Calcutta University **2017-20**

(Department of Polymer Science and Technology)

Project Title- “**Osteoconductive poly(ester amide) nanofiber scaffold derived from municipal plastic waste for bone tissue engineering**”.

Masters Project (4 months)

February - May 2016

Professor Atanu Bhattacharya at IISc Bangalore

Project Title- “**Ground State Decomposition Mechanism of Metal contained Nitramine molecule**”.

Summer project (2 months)

June-July 2015

Professor T. P. Radhakrishnan at Hyderabad Central University.

Project Title- “**Synthesis of PNOA-Au and PNOA-Ag Thin Films at the Air-Solution Interface and Characterization**”.

Industrial training (3 weeks)

October 2013

Hindustan National Glass & Industries Ltd.

Panchu Gopal Bhaduri Sarani, Rishra, Prabhasnagar-712249, Hooghly, W.B. India.

Academic Records

M.Sc. in Applied Chemistry

2014-2016

Ramakrishna Mission Vidyamandira (University of Calcutta)
Belurmath, Howrah, West-Bengal, India, Pin-712202

B.Sc. in Industrial Chemistry

2011-2014

Ramakrishna Mission Vidyamandira (University of Calcutta)
Belurmath, Howrah, West-Bengal, India, Pin-712202

Exam Passed	Board/University	Year	Full Marks	Marks Obtained	%age
10 th	W. B. B. S. E	2009	800	656	82
12 th	W. B. C. H. S. E	2011	500	385	77
B.Sc. in Industrial Chemistry	Calcutta University	2014	800	679	79.875
M.Sc. in Applied Chemistry	Calcutta University	2016	1200	905	75.416

Publications

- Formation of a gold -carbon dot nanocomposite with superior catalytic ability for the reduction of aromatic nitro group in water.** *RSC Advances*; 2014, 4, 25863-25866. Pritiranjana Mondal, **Krishanu Ghosal**, Swarup Krishna Bhattacharyya, Mithun Das, Abhijit Bera, Debabrata Ganguly, Pawan Kumar, Jaya Dwivedi, RK Gupta, Angel A Martí, Bipin Kumar Gupta and Subhabrata Maiti.
- Biopolymer Based Interfacial Tissue Engineering for Arthritis.** In Bingyun Li and Thomas Webster (Ed.) *Orthopedic Biomaterials: Progress in Biology, Manufacturing and Industry Perspectives, Springer USA*; 2018, 2, 67-88. **Krishanu Ghosal**, Rohit Khanna and Kishor Sarkar.
- Biomedical Applications of Graphene Nanomaterials and Beyond.** *ACS Biomaterials Science and Engineering*; 2018, 8, 2653-2703. **Krishanu Ghosal** and Kishor Sarkar.
- Carbon dots: The next generation platform for biomedical applications.** *Materials Science and Engineering: C*; 2019, 96, 887-903. **Krishanu Ghosal** and Ashis Ghosh.
- Green synthesis and characterization of silver nanoparticles using Belladonna Mother Tincture and its efficacy as a potential antibacterial and anti-inflammatory agent.** *Materials Chemistry and Physics*; 2019, 228, 310-317. Pratik Das, **Krishanu Ghosal**, Nandan K Jana, Anwesha Mukherjee and Piyali Basak.
- Formation of Gold Nanorod-Carbon Dot Nanocomposite with Superior Catalytic Ability,** in International conference **Recent Advancement in Polymer Science & Technology (RAPT 2014)** (ISBN No: 978-81-925299-2-9 & Page No: 216). Department of Polymer Science & Technology, University of Calcutta.
- Dendrimer Functionalized Carbon Quantum Dot for Selective Detection of Breast Cancer and Gene Therapy.** *Chemical Engineering Journal*; 2019, 373, 468-484. Santanu Ghosh, **Krishanu Ghosal**, Sk Arif Mohammad and Kishor Sarkar.
- Poly (ester amide) Derived from Municipal Polyethylene Terephthalate Waste Guided Stem Cell for Osteogenesis.** *New Journal of Chemistry*; 2019, 43, 35, 14166-14178. **Krishanu Ghosal** and Kishor Sarkar.

9. **Facile green synthesis of bioresorbable polyester from soybean oil and recycled plastic waste for osteochondral tissue regeneration.** *European polymer Journal*; 2020, 122, 109338. **Krishanu Ghosal**, Upama Bhattacharjee and Kishor Sarkar.
10. **Advances in Tissue Engineering and Regeneration.** In: Li B., Moriarty T., Webster T., Xing M. (eds) **Racing for the Surface**, *Springer, Cham*; 2020, 1, 577-646. **Krishanu Ghosal**, Priyatosh Sarkar, Rima Saha, Shantanu Ghosh and Kishor Sarkar.
11. **Natural polysaccharide derived carbon dot based in situ facile green synthesis of silver nanoparticles: Synergistic effect on breast cancer.** *International Journal of Biological Macromolecules*; 2020, 162, 1605-1615. **Krishanu Ghosal**,[†] Santanu Ghosh,[†] Debjani Ghosh and Kishor Sarkar.
12. **In vivo bioresorbable shape memory polyester derived from recycled polycarbonate waste for tissue engineering.** (*Communicated*). **Krishanu Ghosal**, Shaipayan Pal and Kishor Sarkar.
13. **From ultrastiff to soft materials: Exploiting dynamic metal-ligand cross-links to access polymer hydrogels combining customized mechanical performance and tailorable functions by controlling hydrogel mechanics.** (*Communicated*). Agniva Dutta¹, **Krishanu Ghosal**², Kishor Sarkar², Debabrata Pradhan¹ and Rajat K. Das¹.
14. **Synthesis of Nonisocyanate based Poly(ester urethanes) from Recycled Poly(ethylene terephthalate) Waste and Oleic Acid for Tissue Engineering Application.** (*Manuscript under preparation*). **Krishanu Ghosal**,[†] Priyatosh Sarkar,[†] Debojit Chakraborty and Kishor Sarkar.

Awards

1. Participated in Scientific Modelling Competition “**Eureka**” in “**Cultivision 2014**” organized by I.A.C.S and Win **2nd prize** by presenting poster on “**Superior Catalytic Activity of Gold Nanorod-Carbon Dot Conjugate towards Reduction of Nitroarenes**”.
2. **Best poster award** in "**Symposium on Polymer Science**" organised at IISER Kolkata on July 05-06, 2019.
3. **International award winner** for painting from **Japan**.

Expertise

1. Origin software, GraphPad Prism, Image-J, Irfan View, Xpert Pro, MestReNova, ChemSketch, ChemDraw, EndNote, Microsoft word and power point.

2. Nanomaterials synthesis, characterization, Polymer synthesis, characterization.
3. Experience to handling UV-Visible spectrophotometer, FTIR, Bomb Calorimeter, Red Wood Viscometer, Photoluminescence Spectrophotometer, L B Trough, TGA, DSC, Rheometer, Glove box, DLS, Plate reader.
4. Cell Culture experiments, Passaging, MTT Assay, Straining, Cell Fixation etc.

Extracurricular activities

Painting, storybook reading, Knowledge gathering related to computer, learning new software's, gaming.

Conferences/Seminars

Participated in **APA 2017** for Poster Presentation “**Soybean Oil and Recycled Polyethylene Terephthalate Waste Derived Biopolymer for Tissue Engineering Application**”.

Participated in **BIOMET 2018** at **VIT Vellore** for Poster Presentation “**Municipal Plastic Waste Derived Biopolymer for Bone-Cartilage Tissue Regeneration**”.

Participated in **Symposium on Polymer Science** at **IISER Kolkata** for Poster Presentation “**Dendron Conjugated Carbon Quantum Dot for Selective Detection of Breast Cancer and Gene Therapy**”.

Participated in **BIOTERM 2019** at **IIT Kanpur** for Poster Presentation “**Poly(ester amide) derived from municipal polyethylene terephthalate waste guided stem cells for osteogenesis**”.