

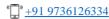
Maansi Aggarwal

Research Scholar, IIT Patna

Objective: To contribute to the ever expanding field of biochemistry with carbon dot conjugation for biomedical applications that brings out the best of creativity and imagination.

https://maansi-aggarwal.vercel.app/

maansi 2121ch12@iitp.ac.in



Academic Background	
Ph.D. in Chemistry	2021-Present
☑ Indian Institute of Technology, Patna	
CGPA: 8.79/10	
M.Sc. in Chemistry	2018-2020
Thapar Institute of Engineering and Technology, Patiala	
CGPA: 9.74/10	
B.Sc. Non Medical	2015-2018
A.C.M DAV College for Women, Chandigarh, Punjab University	
Percentage: 83.25%	
12th Class (CBSE)	2014-2015
B. Holy Heart Senior Secondary School, Nahan, Himachal Pradesh	
Percentage: 92%	
10th Class (CBSE)	2012-2013
Bernard Holy Heart Senior Secondary School, Nahan, Himachal Pradesh	
CGPA: 9.80	

Publications

- "Simultaneous sustained drug delivery, tracking, and on-demand photoactivation of DNA-hydrogel formulated from a biomass-derived DNA nanoparticle" Ravi Shankar, Suman Nayak, Sneha Singh, Abhik Sen, Nitesh Kumar, Rashmi Bhushan, **Maansi Aggarwal**, Prolay Das (ACS Applied Bio Materials, 2023).
- "Preparation and characterization of curcumin incorporated soy protein isolate biopolymeric films" Shikha Rani, Priya Rani, **Maansi Aggarwal**, K Dinesh Kumar, Rakesh Kumar (Journal of Polymers and the Environment, 2022).
- "Two-dimensional ultrathin metal-based nanosheets for photocatalytic CO₂ conversion to solar fuels" **Maansi Aggarwal**, Nagaraj P Shetti, Soumen Basu, Tejraj M Aminabhavi (**Journal Of Environmental Management**, **2022**).
- "Photocatalytic carbon dioxide reduction: Exploring the role of ultrathin 2D graphitic carbon nitride (g-C₃N₄)" **Maansi Aggarwal**, Soumen Basu, Nagaraj P.Shetti, Mallikarjuna, N.Nadagouda, Eilhann, E.Kwon, Young-Kwon Park, Tejraj M.Aminabhavi (Chemical Engineering Journal, 2021).
- "Photocatalytic conversion of CO₂ into valuable products using emerging twodimensional graphene-based nanomaterials: A step towards sustainability" **Maansi Aggarwal**, Soumen Basu, Nagaraj P Shetti, Mallikarjuna N Nadagouda, Tejraj M Aminabhavi (Chemical Engineering Journal, 2021).

Research Experience

Dec'19-July'20: Research Fellow: Exploring the role of ultrathin 2D-graphitic layer in the composites of g-C₃N₄ & GO for photocatalytic CO₂ reduction

2, #206, Department of Chemistry, IIT Patna

(Thapar Institute of Engineering and Technology, Patiala)

May'19-July'19: Summer Research
Fellow: Characterization of new
interstellar molecules by first
principle studies

(Indian Institute of Technology, Ropar)

Awards and Honours

- Prime Minister's Research Fellow (ID- 2702444 July, 2022 cycle)
- GATE Qualified (Chemistry) 2021
- Summer Internship Fellowship Programme by IAS-NASI-INSA (Assigned IIT Ropar) 2019
- IIT JAM Qualified (Chemistry) 2018

Teaching Experience

- CH103: Introductory Chemistry, IIT Patna
- CH440: Inorganic Practical, IIT Patna
- PC100103: Atomic and Molecular Structure, NSIT, Patna
- PC100203: Periodic Properties and Stereochemistry, NSIT, Patna
- CHEM130: Physical Chemistry and Introduction of Organic Chemistry to Canadian students