# Anubhay Goswami

### University of California, Los Angeles

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### **EDUCATION**

University of California, Los Angeles

Los Angeles, United States 2023 - present

Doctor of Philosophy (Ph. D.) Chemistry and Biochemistry

GPA: 4.0/4.0

Advisor: Prof. Anastassia Alexandrova

Indian Institute of Science Bengaluru, India 2019 - 2023

Bachelor of Science (Research) Major in Chemistry, Minor in Physics

CGPA: 9.6/10.0

Garden High School Kolkata, India Indian School Certificate (ISC) 2018 - 2019

Aggregate: 99.00%

Garden High School Kolkata, India 2016 - 2017

Indian Certificate of School Education (ICSE)

Aggregate: 97.00%

### RESEARCH EXPERIENCE

University of California, Los Angeles

Graduate Student Researcher

Advisor: Prof. Anastassia Alexandrova

Los Angeles, United States September 2023 – present

TBD

Indian Institute of Science

Bengaluru, India Bachelor's Thesis August 2022 – May 2023

Advisor: Dr. Garima Jindal

A combined computational and experimental mechanistic investigation of the unusual Rh(II)-catalyzed allylic alkylation

Technische Universität Berlin

Berlin, Germany DAAD-WISE Research Internship May 2022 - July 2022

Advisor: Prof. Dr. Martin Oestreich

Attempted to develop a novel method for the transition metal-free catalytic Friedel Craft's C-H borylation of electron deficient arenes using boron- and silicon-based catalysts

Indian Institute of Science

Bengaluru, India Research Internship January 2021 – April 2022

Advisor: Prof. Partha Sarathi Mukherjee

Received training in synthesis, purification, and characterization of various ligands and supramolecular complexes and in performing photophysical studies of these systems for application in singlet oxygen generation

#### **Indian Institute of Science**

Bengaluru, India

Research Internship

June 2021 – September 2021

Advisor: Dr. Garima Jindal

Computationally investigated the reaction mechanism of an organocatalytic enantioselective reaction to determine the potential pathways (simple kinetic resolution, dynamic kinetic resolution, and dynamic kinetic asymmetric transformation) for the reaction

### **Indian Institute of Science**

Bengaluru, India

Reading Project

May 2020 – July 2020

Advisor: Prof. Partha Sarathi Mukherjee

Undertook a reading project in the field of Supramolecular Chemistry – studied self-assembled molecular architectures, catalysis within confined nanospaces, and light harvesting systems

### **PUBLICATIONS**

- R. Das, S. Barik, A. Kunhiraman, <u>A. Goswami</u>, A. Mondal, M. Dey, A.T. Biju, *ACS Catal.* **2024** (in revision).
- A. Goswami, R. Gogoi, A. Panda, A. C. Sheth, G. Jindal, ChemRxiv (2023). doi: 10.26434/chemrxiv-2023-ksf8p-v2
- A. Tyagi, <u>A. Goswami</u>, G. Jindal, ChemRxiv (2023). doi: 10.26434/chemrxiv-2023-pq5g2
- M. S. Harariya, R. Gogoi, A. Goswami, A. K. Sharma, G. Jindal, Chem. Eur. J. 2023, 29. ee2023019.

### ACADEMIC ACHIEVEMENTS

#### Rajarshi Bhattacharya Memorial Medal

2023

Awarded the Gold medal by the Indian Institute of Science for the best performance in Four-Year Bachelor of Science (Research) in Chemistry

### **DAAD-WISE Scholarship**

2022

Awarded by the DAAD (German Academic Exchange Service) for undertaking a research internship in Germany

#### Kishore Vaigyanik Protsahan Yojana

2019

Fellowship and Scholarship awarded by the Dept. of Science & Technology, Govt. of India

#### Award of Academic Excellence

2019

Awarded by the Chief Minister of West Bengal and Ministry of Education, West Bengal for securing the **5th position** in the Indian School Certificate Examination (CISCE)

#### JBNSTS Junior Scholarship

2017

Awarded by JBNSTS (Jagadish Bose National Science Talent Search), an autonomous organization under the Ministry of Education, West Bengal

### Leadership and Outreach

### Coordinator, Chemenigma

2021

Chemenigma is a national competition in Chemistry organized as a part of Pravega, the Undergraduate Science and Cultural Fest at IISc. Led a team of 20 students to plan and host this event including designing problems, managing publicity and finances. The event received overwhelming response from students across India

### Coordinator, Elementary

2020

### Elementary Quiz

Organized a 3 week-long Chemistry quiz in which over 200 high school and undergraduate students participated

### **Elementary Lecture Series**

Organized a webinar series to introduce high school and undergraduate students to new and upcoming fields in Chemistry - comprised 7 lectures where eminent chemists around the world spoke about their current research.

### Volunteer, IISc Open Day

2020

Interacted with general public of all ages and illustrated common scientific principles and applications in the field of Chemistry and Biology through video presentations, games, and other activities

### TECHNICAL SKILLS

- Computational chemistry software: Gaussian, VASP,
- Python, C, MATLAB, Java, BASH Scripting
- Organic and Inorganic Synthesis using Schlenk and glovebox techniques, including purification using column chromatography and use of chiral HPLC
- Characterization using 1D and 2D NMR (<sup>1</sup>H, <sup>13</sup>C, Boron, and Silicon) spectroscopy, GC-MS, ESI-MS, and UV-Vis and IR spectroscopy and photophysical studies using fluorescence and UV-Vis spectroscopy

# **EXTRA-CURRICULAR INTERESTS**

- Playing Kho-Kho, a rural Indian sport; awarded the silver medal in Kho-Kho at Eclipse 2021, the undergraduate sports fest at IISc
- Passionate about debating; awarded the second position in the Frank Anthony Memorial All-India Inter-School Debate 2018 and organized debates at the high-school level

# REFERENCES

#### Prof. Anastassia Alexandrova

Professor, Chemistry and Material Science University of California, Los Angeles - 90024

E-mail: ana@chem.ucla.edu

### Dr. Garima Jindal

Assistant Professor, Dept. of Organic Chemistry, Indian Institute of Science, Bengaluru – 560 012 E-mail: gjindal@iisc.ac.in