

Sumon Basak

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Education **Università degli Studi di Perugia** Perugia, Italy

Doctoral student (*2021-present*). Marie Skłodowska Curie Actions (MSCA) Fellow at Green SOC lab.

Banaras Hindu University Varanasi, India

Master's student (*2018-2020*). Department of Chemistry. Specialized in organic chemistry. CGPA 8.03.

University of Calcutta Kolkata, India

Bachelor's student (*2015-2018*). Scottish Church College. Chemistry (honors) with Physics & Mathematics (minor). 73.5% (honors). Secured 2nd rank in the college department.

Research **Università degli Studi di Perugia** Perugia, Italy

Experience Department of Chemistry, Biology, and Biotechnology. Doctoral Student (*Aug 2021 – present*).

Advisor: Prof. Luigi Vaccaro.

Research project involves designing of functionality tailored borazines using organometallic catalysis & producing them in bulk amount applying flow reactor.

Banaras Hindu University Varanasi, India

Department of Chemistry. M.Sc. Project Student (*Jan – May 2020*).

Advisor: Prof. Satyen Saha.

Thesis title: “Synthesis and Photophysical Studies of Novel Xanthene-type Triarylmethanes”.

Responsibilities included catalytic synthesis of novel triarylmethanes (TRAMs) with xanthene skeleton. This class of TRAMs is elegant dyes & fluorescent tags for cell imaging. Techniques such as inert atmosphere reactions, recrystallization, column chromatographic separations were used for synthesis and purification. A brief experience was acquired with Raman instruments.

Indian Association for The Cultivation of Science Kolkata, India

School of Chemical Science. Winter Intern (*Dec 2019*).

Advisor: Prof. Ayan Datta.

Worked with a graduate student on the mechanistic investigation of H-isotope separation through C₂N-h₂D material. Assisted in preparing a

couple of input files meant to be used in VASP. Learned GaussView basic molecular structure & energy optimization.

Indian Institute of Technology, Bombay Mumbai, India

Department of Chemistry. Summer Intern (*May – Jul 2019*).

Advisor: Prof. Debabrata Maiti.

The assigned task included multi-step syntheses of Pd-catalyzed aromatic *o*-C–H functionalization. Synthesized all molecules that were subjected to the final step of the reaction. Learned to use glove box & some elementary skills with HPLC.

Banaras Hindu University Varanasi, India

Department of Chemistry. Winter Intern (*Dec 2018 – Jan 2019*).

Advisor: Prof. Maya Shankar Singh.

Responsibility was to catalytically functionalize the α -position of aryl β -ketothioamide. Learned all rudimentary skills used in synthesis lab, like operating rotavapor, performing column chromatography, NMR operation, putting up inert-atmosphere and low-temperature reactions.

Publications	<p>2. Basak, S.; Dutta, S.; Maiti, D. Access C2-Functionalized 1,3-(Benz)azoles through Transition Metal-catalyzed C–H Activation. Chem. Eur. J. 2021, 27, 10533–10557</p> <p>1. Basak, S.; Biswas, J. P.; Maiti, D. Transition Metal Catalyzed C–H Arylation Using Organoboron Reagents. Synthesis 2021, 53(18): 3151-3179</p>
TOEFL iBT	<p>111 out of 120. Valid up to April 2023. Reading (29/30), Listening (29/30), Speaking (27/30), Writing (26/30).</p>
Scholarships	<p>Marie Skłodowska Curie Actions-Innovative Training Network fellowship (2021-2024)</p> <p>Selected for MSCA-ITN fellowship to become part of a 15-member cohort, funded by European Commission under H2020 program.</p> <p>SHE-INSPIRE Scholarship (2015-2020).</p> <p>Ranked amongst top 1 percentile students of the country and received financial assistance from DST, India for the entire UG-PG study.</p> <p>Swami Vivekananda Merit cum Means scholarship (2013-2015).</p> <p>Received state government-funded scholarship to pursue studies in grades 11-12.</p>

Technical Experience	<p>MS Office Proficient with the use of Word, Excel, PowerPoint, and OneNote.</p> <p>Chemdraw Proficient with the drawing of chemical structures.</p> <p>GaussView Elementary skills in molecular structure drawing & energy optimization.</p> <p>Fortran Elementary coding skills & mathematical calculations.</p>
Professional Experience	<p>Chegg Inc. Subject Q&A expert, specialized in Chemistry (<i>Feb 2019-present</i>). Have contributed to 350+ tutorial questions and continuing this freelance endeavor as a part-time job.</p>
Languages	<p>English Complete fluency in speaking, writing, & reading.</p> <p>Bengali Native/bilingual proficiency.</p>
Other Activities	<p>Chemiquiz (<i>2018</i>). Teamed with 2 other classmates. Ranked 4th in the competition.</p> <p>Rotary Swarnakana Merit Test (<i>2012-2014</i>). Ranked in top 3 thrice.</p>

(Updated 08/12/2021)