

## Curriculum Vitae

**Name:** Sayan Shee

**Sex:** Male

**Nationality:** Indian

**Date of Birth:** 14<sup>th</sup> June, 1996



### **Special Achievements:**

- Recipient of **Merit-Cum-Means** scholarship from West Bengal in Higher Secondary
- **DST INSPIRE** Scholarship (2014 – 2017)
- Qualified **JAM** (Joint Admission Test For M.Sc. Examination 2017). Rank- 76
- Qualified **NET** (CSIR NET, December 2017). Rank- LS-36
- Attended International Conference on Organometallics and Catalysis (**ICOC-2020**) at Goa and presented poster entitled as ‘**N-Heterocyclic Carbene Catalysed Desymmetrization of Cyclic -1,3-Diketones via  $\alpha,\beta$ -Unsaturated Acylazolium Intermediates**’
- Presented ‘**Flash Talks**’ at **ICOC-2020**

### **Educational Background:**

#### **Secondary Education Record:**

Marks obtained	88.2% (617 out of 700)
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**Year of Passing:**

2012

**School:**

Hakola High School, West Bengal, India

#### **Higher Secondary Education Record:**

Marks obtained	88.6% (443 out of 500)
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**Year of Passing:**

2014

**School:**

Bhogpur Kenaram Memorial High School, West Bengal, India

#### **Undergraduate Record (Bachelor of Science):**

Marks obtained	77.4% (617 out of 800)
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**Major:**

Chemistry.

**Minor:**

Mathematics, Physics, Environmental Studies.

**Year of Passing:** 2017.  
**Class awarded:** 1<sup>st</sup> Class in Major.  
**University:** Midnapore College, Midnapore, West Bengal, India

### Postgraduate Record (Integrated PhD):

CGPA	CGPA 8.5
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**Major:** Chemistry.  
**Year of Passing (Master's Degree):** 2019.  
**Class awarded:** 1<sup>st</sup> Class in Major.  
**Institute:** Indian Institute of Science, Bangalore, India.

### Research Experience:

Project Title	Name of the Guide	Abstract of the Work
N-Heterocyclic Carbene-Catalyzed Transformations via $\alpha,\beta$ -Unsaturated Acylazoliums	Dr. A. T. Biju <a href="mailto:atbiju@iisc.ac.in">atbiju@iisc.ac.in</a> Associate Professor, Indian Institute of Science, Bangalore- 560012, India	In organocatalytic applications, NHCs are mainly used for the umpolung of aldehydes. In addition to the application of NHCs in umpolung strategies, carbenes are also useful as catalysts in non-umpolung transformations. An important mode of reactivity in this domain proceeds through the $\alpha,\beta$ -unsaturated acylazoliums. In many cases $\alpha,\beta$ -unsaturated acylazolium intermediate acts as a bis-electrophile allowing the conjugate addition of various bis-nucleophiles followed by 1,2-addition to form a wide variety of carbocycles and heterocycles.

### Publications:

- Mukherjee, S.; **Shee, S.**; Poisson, T.; Besset, T.; Biju, A. T.  
Enantioselective N-Heterocyclic Carbene-Catalyzed Cascade Reaction for the Synthesis of Pyrroloquinolines via N-H Functionalization of Indoles.  
*Org. Lett.* **2018**, *20*, 6998.
- Barik, S.; **Shee, S.**; Ghosh, A.; Biju, A. T.  
Catalytic, Enantioselective C2-Functionalization of 3-Aminobenzofurans Using N-Heterocyclic Carbenes.  
*Org. Lett.* **2020**, *22*, 3865.
- Shee, S.**; Mukherjee, S.; Gonnade, R. G.; Biju, A. T.  
Enantioselective Synthesis of Tricyclic  $\beta$ -Lactones by NHC-Catalyzed desymmetrization of Cyclic 1,3-Diketones.  
*Org. Lett.* **2020**, *22*, 5407.