

## Pankaj Kumar Chaturvedi

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### INFORMATION

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#### Mailing Address

Lab No. E205, 2<sup>nd</sup> Floor,  
Chemical Science Building,  
Indian Institute of Science,  
Bangalore: 560012, KA, India

#### Personal Information

Father: Mr. Santosh Kumar Chaturvedi  
Date of Birth: 28<sup>th</sup> January 1997  
Gender: Male  
Marital Status: Unmarried

### EDUCATION

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**Indian Institute of Science, Bangalore, India** **2019-present**

Doctor of Philosophy (Ph.D.) in Organic Chemistry

**Topic:** *Supramolecular Chemistry using metal-organic hybrid systems.*

Supervisor: Prof. Uday Maitra

**Banaras Hindu University, Varanasi, India** **2017-2019**

Master of Science (M.Sc.) in Organic Chemistry

CGPA/Percentage: 8.79/10

**Project:** *Multicomponent Synthesis of Sulfonamide-Thiazolidinone Hybrids.*

Supervisor: Prof. Krishna Nand Singh

**Hindu College, University of Delhi, New Delhi, India** **2014-2017**

Bachelor of Science (B.Sc.) in Chemistry

CGPA/Percentage: 86.3%

### ACADEMIC ACHIEVEMENTS

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- Qualified National-level **GATE** CY-2019, CY-2020 & CY-2021 with the All-India Rank of **81, 93 & 176**, respectively.
- Qualified National-level **JRF (NET)-CSIR** Dec-2017 with the All-India Rank of **52**.
- Qualified National-level **JAM** (CY-2017) with the All-India Rank of 293.
- **INSPIRE** Scholarship Holder (UG & PG).

## **BROAD AREA OF RESEARCH**

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We explore new chemistry and supramolecular chemistry using bile acids and their salts. We also have a programme on the design of functional soft materials such as a composite organic-inorganic hybrid materials. Currently, we are working on the luminescent metallocholate hydrogels and energy transfer in these systems to develop a ‘*pro-sensitiser*’ based sensing of small molecules/ions (Fluoride ion) and enzymes (Acetylcholinesterase, Neuraminidase, Alpha-Galactosidase).

## **RESEARCH EXPERIENCE**

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- Various reaction set-up on small and large scale.
- Purification by Column chromatography and crystallisation.
- Detailed analysis of products (structure and properties) by NMR, HRMS, and FT-IR.
- Maintain laboratory and its equipment, troubleshooting issues when necessary to ensure a safe and productive lab.
- Wrote reports detailing processes, products, tests, and facilities used during experimentation.
- Maintained inventory and purchased lab supplies, including chemicals, glasswares, and equipment *etc.*

## **SKILLS AND INSTRUMENTS USED**

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- Spectrofluorometer (Shimadzu)
- UV–Vis Spectrophotometer (Shimadzu)
- HPLC (Shimadzu)
- Infra-Red Spectrophotometer
  
- **Frequently Used Softwares:** Origin, ChemDraw, MestReNova, Microsoft Office *etc.*

## **PUBLICATIONS**

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- 1) Catalytic Promiscuity: A Novel Sugar Hydrolase Activity of Alkaline Phosphatase from a Bovine Source. (*Manuscript under preparation*).

## **CONFERENCE and WORKSHOPS ATTENDED**

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- 1) Attended the RSC-IISER Desktop Seminar with CrystEngComm on **23<sup>rd</sup> September 2021**.
- 2) Attended the ACS Seminars on “*Advances in Polymer Nanocomposites*” on **18<sup>th</sup> & 19<sup>th</sup> October 2021**.
- 3) Attended the International seminar (ARM2S-2022) on “*Advance Research in Molecular & Material Science*” on **1<sup>st</sup> & 2<sup>nd</sup> March 2022**.