Sandeep Yadav

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Current Position

Ph.D. Scholar (International Program Associate) Molecular Spectroscopy Laboratory RIKEN, Wako, Saitama 351-0198, Japan

Personal Information

Present Address:

G-401, I House, RIKEN, Wako, Saitama Japan, Pin-351-0106

 $\boldsymbol{Gender}-\boldsymbol{Male}$

Date of Birth– 12/12/1995

Permanent Address:

Vill.- Ahirauli, P.O. - Natthupur, Dist-Mau, Uttar Pradesh, Pin-221603, India

Education

Exam	Year	Institution	CPI/GPA/Percentage
Ph.D. course work	2019-2020	Indian Institute of Technology Kanpur, India	9.0
M.Sc.	2019	Indian Institute of Technology Kanpur, India	8.8
B.Sc.	2017	Banaras Hindu University, Varanasi, India	8.3
12 th Standard	2012	St. Mary Inter College (U.P. Board), India	81.20 %
10 th Standard	2010	St. Mary Inter College (U.P. Board), India	80.17 %

Academic Achievements and Awards

- 1. Secured All India Rank-37 in 'National Eligibility Test for JRF (NET) UGC',
- 2. All India Rank-228 in JAM-2017 exam.
- 3. Qualified GATE-2020 with AIR-273.
- 4. Merit-Cum-Means (MCM) Scholarship (08/2017 05/2019).
- 5. **Inspire Fellowship** for excellence in Higher Secondary Examination.
- 6. Secured 1st position in School in the Secondary Examination (10th standard) in 2010.
- 7. Secured 2nd position in School in the Higher Secondary Examination (12th standard) in 2012.

Research Experience

<u>PhD:</u> December 2020 – Present, IPA at RIKEN, Wako, Japan (Supervisor: Prof. Tahei Tahara, Molecular Spectroscopy Laboratory, RIKEN, Wako, Japan)

August 2019 – November 2021, Junior Research Fellow at IIT Kanpur, India (Supervisor: Prof. Pratik Sen, Department of Chemistry, IIT Kanpur, India)

<u>Conformational dynamics of DNA/RNA/protein in various environments using two-dimensional fluorescence lifetime correlation spectroscopy</u>

M.Sc. Thesis project: December 2018 - April 2019 (Supervisor: Prof. Pratik Sen, Department of Chemistry, IIT Kanpur, India)

Protein Structure-Dynamics-Activity Relation

Structural, functional and dynamical response of a plant enzyme, bromelain, in GnHCl and Ficoll.

<u>Summer Research project:</u> May 2018 - July 2018 (Supervisor: Prof. Pratik Sen, Department of Chemistry, IIT Kanpur, India)

Fluorescence Sensing of Metal Ions

Synthesis and spectroscopic study of a novel cascade chemosensor that can detect Cu^{2+} and Al^{3+} sequentially.

Publication

1. Nilimesh Das*, Sandeep Yaday, Kuldeep Singh Negi, Ejaj Tarif and Pratik Sen*.

"Does Microsecond Active-Site Dynamics Primarily control Proteolytic Activity of Bromelain? Clues from Single Molecular Level Study with a Denaturant, a Stabilizer and a Macromolecular Crowder."

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