

CURRICULUM VITAE

NAME: Bharat Tandon

DOB: January 5th, 1992

CURRENT POSITION: 5th year Integrated PhD Student at IISER-Pune

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EDUCATION/FELLOWSHIPS

- Standard X from Lord Mahavira Academy, Saharanpur (**2008**).
- Standard XII from DAV, Delhi (**2010**).
- Bachelors in Chemistry from St. Stephen's College, Delhi University (**2013**).
- CSIR-UGC NET Qualified (**2014**)
- Masters in Chemistry from Indian Institute of Science Education and Research (IISER), Pune (**2015**).

AWARDS AND RECOGNITIONS

- Awarded Fulbright Nehru Doctoral Research (FNDR) Fellowship by USIEF (**2017**)
- Awarded Junior Research fellowship (JRF) by CSIR. (**2015**)
- Awarded Mohan Katyal Memorial Prize by St. Stephen's College for excellence in academics, co-curricular activities, moral character and selfless service. (**2013**)

RESEARCH AREA OF INTEREST

To integrate plasmonics and magnetism in a metal oxide nanocrystals for fundamental study of interactions between delocalized electrons and localized magnetic spins.

PUBLICATIONS

1. Tandon, B.; Shanker, G. S.; Nag, A. "Multifunctional Sn- and Fe-Codoped In₂O₃ Colloidal Nanocrystals: Plasmonics and Magnetism" *J. Phys. Chem. Lett.* **2014**, *5*, 2306.

2. Shanker, G. S.; Tandon, B.; Shibata, T.; Chattopadhyay, S.; Nag, A. "Doping Controls Plasmonics, Electrical Conductivity, and Carrier-Mediated Magnetic Coupling in Fe and Sn Codoped In₂O₃ Nanocrystals: Local Structure Is the Key" *Chem. Mater.* **2015**, *27*, 892.
3. Tandon, B.; Ashok, A.; Nag, A. "Colloidal Transparent Conducting Oxide Nanocrystals: A New Infrared Plasmonic Material" *Pramana -J. Phys.* **2015**, *84*, 1087.
4. Tandon B.; Yadav, A.; Nag, A. "Delocalized Electrons Mediated Magnetic Coupling in Mn-Sn codoped In₂O₃ Nanocrystals: Plasmonics Shows the Way" *Chem. Mater.* **2016**, *28*, 3620.
5. Yadav, A.; Tandon, B.; Nag, A. "Reduction of Mn³⁺ to Mn²⁺ and Near Infrared Plasmonics from Mn-Sn codoped In₂O₃ Nanocrystals" *RSC Advances* **2016**, *6*, 79153.

CONFERENCES POSTERS AND ORAL PRESENTATIONS

1. Presented "*Doping Controls Plasmonics, Electrical Conductivity, and Carrier-Mediated Magnetic Coupling in Fe and Sn Codoped In₂O₃ Nanocrystals: Local Structure Is the Key*" in International Conference on Structural and Inorganic Chemistry (**ICSIC**) held at NCL and IISER-Pune in December 2014.
2. Presented "*Doping Controls Plasmonics, Electrical Conductivity, and Carrier-Mediated Magnetic Coupling in Fe and Sn Codoped In₂O₃ Nanocrystals: Local Structure Is the Key*" in Frontiers in Advanced Materials (**FAM**) held at IISC, Bangalore in June 2015. (**BEST POSTER AWARD**)
3. Presented "*Delocalized Electrons Mediating Magnetic Coupling in Mn-Sn Codoped In₂O₃ Nanocrystals: Plasmonics Shows the Way*" in International Conference on Advanced Nanomaterials and Nanotechnology (**ICANN**) held at IIT-G in December 2015.
4. Presented "*Delocalized Electrons Mediating Magnetic Coupling in Mn-Sn Codoped In₂O₃ Nanocrystals: Plasmonics Shows the Way*" in International Conference on Nanoscience and Technology (**ICONSAT**) held at IISER-Pune in March 2016.
5. Delivered an oral presentation on "*Plasmonics and Magnetically Doped Colloidal Metal Oxide Nanocrystals*" in **Mumbai-Pune Semiconductor Meet** held at IISER-Pune in March 2016.