

Dr. SANTOSH P. PANCHAL



ADDRESS

Indian Institute of
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DATE OF BIRTH

April 10, 1986

NATIONALITY

Indian

LANGUAGES

English (Excellent)
Hindi (Excellent)
Marathi (mother
tongue)

INTERESTS

- Reading
- Painting
- Sketching

Education

2011 - 2017	Indian Institute of Science Education and Research (IISER), Pune. Doctor of Philosophy (PhD) in Chemistry Thesis title - Synthesis, characterization and redox properties of Antiaromatic Isophlorins and Carba-isophlorinoids	India
2007 - 2009	Swami Ramanand Teerth Marathwada University, (MH), Nanded. Master's Degree in Chemistry	India
2004 - 2007	Maharashtra Mahavidhyalaya, Nilanga. Bachelor's degree in Physics, Chemistry and Mathematics	India

Professional Experience

2021- Present	Indian Institute of Science Education and Research (IISER), Pune. Research Associate, Synthesis, characterization and redox properties of antiaromatic porphyrinoids	India
2018 - 2021	Institute for Organic/Inorganic Chemistry, Centre for Nanosystems Chemistry (CNC), University of Würzburg. Postdoctoral Research Associate Synthesis, characterization and photophysical properties of Boron based Functional, materials (helicenes)	Germany
2017 - 2018	Indian Institute of Science Education and Research (IISER), Pune. Project Assistant Synthesis and characterization of Isophlorinoids	India
2011 - 2017	Indian Institute of Science Education and Research (IISER), Pune. Doctor of Philosophy (PhD) in Chemistry Thesis title - Synthesis, characterization and redox properties of Antiaromatic Isophlorins and Carba-isophlorinoids	India
2010 - 2011	The Centre for e-Learning and Training (CeLT), TechKnit IT Enabled Services Pvt. Ltd., Pune. Online General Chemistry Teaching	India

Summary of Achievements

Examinations Qualified:

1. CSIR-UGC-NET (two times) with all India rank-12 and 169 conducted by Human Resource Development Group (MHRD) for qualification of PhD and Lectureship, India
2. State Eligibility Test (SET) conducted by Pune University under University Grant Commission (UGC) for Lectureship, India
3. Graduate Aptitude Test in Engineering (GATE), conducted by Indian Institute of Technology (IIT), Madras and Indian Institute of Science (IISc), Bangalore, under MHRD, Government of India, for PhD admission.
4. Qualified PhD admission entrance examination conducted by Indian Institute of Science (IISc), Bangalore, India

Awards:

- Junior Research Fellowship (JRF) by Indian Institute of Science Education and Research (IISER), Pune, India (2011-2013)
- Senior Research Fellowship (SRF) by Indian Institute of Science Education and Research (IISER), Pune, India (2013-2016)

Skills

- **Organic Synthesis:** Reactions under inert conditions, use of organometallic reagents, catalysis using various Palladium catalysts for C-C coupling reactions, conducting air and moisture sensitive reactions and separation techniques chromatographic technique (silica and size exclusion)
- **Instruments:** Analytical and semi-preparative HPLC (chiral), UV-vis and fluorescence spectrometer, MALDI-TOF mass spectrometer, flash-chromatography, circular-dichroism spectrometer, microwave reactor, NMR spectrometer and single X-ray diffractometer.
- **Softwares:** ChemBioDraw, SciFinder, MestReNova, Topspin, Reaxys, Microsoft office, Origin, Diamond, Mercury, crystallographic software (APEX-II, XSELL, ORTEP) and Gaussian 03/09.
- **Computational:** Energy optimization, calculation of HOMO-LUMO and, NICS and AICD calculation using Gaussian software.

Conferences and work shops

- Gaussian work shop held in IISER, Pune - 2014.
- ACS on campus attended two times at IISER, Pune - 2012 and 2017.
- Poster presentation at ChemSyStM-2018, held at University of Würzburg
- SupraChem 2019, University of Würzburg, Würzburg, Germany.
- Participated in health and safety lab workshop (in PhD and PDF), handling of waste chemical materials in Würzburg.

Organizational and other skills

- Excellent ability of handling and supervising Bachelors and Masters students, and successfully completion of their research project through mentorship (during PhD and PDF).
- During my PhD curriculum I have taught and guided CSIR-UGC-NET examination aspiring students for lectureship and PhD admission (nearly six years).
- I am always enthusiastic in reading books (self-improvement, inspirational, and spiritual) and in addition to this, I also love painting and sketching.
- Participated in cultural activities during college days.

Publications

- Julian Full (equal authorship), **Santosh P. Panchal** (equal authorship), Julian Götz, Ana-Maria Krause, Agnieszka Nowak-Król. Modular Synthesis of Organoboron Helically Chiral Compounds: Cutouts from Extended Helices. *Angew. Chem. Int. Ed.*, **2021**, 60, 2-10.
- **Santosh P. Panchal**, Baddigam K. Reddy, V. G. Anand. Synthesis and Redox Chemistry of Antiaromatic Core-Modified Isophlorinoids. *Synlett*. **2018**, 29, 2362-2371.
- **Santosh P. Panchal**, V. G. Anand. Oxidative Transformation of a Tetrathia S- Confused Isophlorin into Porphyrin Cation. *Org. Lett.*, **2017**, 19, 4854-4857
- Santosh C. Gadekar, Baddigam K. Reddy, **Santosh P. Panchal**, V. G. Anand. Metal Assisted Cyclomerization of Benzodipyrrens into Expanded porroles, Aza-heptalene and Acyclic Dimers. *Chem. Commun.*, **2016**, 52, 4565-4568.
- Prachi Gupta, **Santosh P. Panchal**, V. G. Anand. Two-electron Oxidation of Twisted Non-antiaromatic 40 π Expanded Isophlorins. *J. Chem. Sci.*, **2016**, 128, 1703-1707.
- **Santosh P. Panchal**, Santosh C. Gadekar, V. G. Anand. Controlled Core-Modification of Porphyrin into an Antiaromatic Isophlorins. *Angew. Chem. Int. Ed.*, **2016**, 55, 7797-7800.
- Three manuscripts are under preparation and as soon as will get published...