Indian Institute of Science Education and Research Bhopal
Department of Chemistry
IISER Bhopal, Bhauri
Bhopal, Madhya Pradesh 462066
India

bahadur@iiserb.ac.in
Phone: [phone]
Mobile: 9300248946
Fax: [fax]

Bahadur Sk, MSc

bahadur@iiserb.ac.in

https://www.researchgate.net/profile/Bahadur_Sk

Education

Aug 2014 – Present **IISER Bhopal**
Ph.D. in Chemistry
Bhopal, Madhya Pradessh, India

Aug 2012 – Jul 2014 **Guru Ghasidas University**
Master of Science, Chemistry
Bilāspur, Chhattisgarh, India

Jul 2009 – Jun 2014 **The University of Burdwan**
Bachelor of Science, Chemistry
Bardhaman, West Bengal, India

MS Thesis

Novel approach towards inherent chirality and asymmetric synthesis based on p-tert butyl calix [4] arene.
2014, DOI:10.13140/2.1.2006.8489

Research Experience

Sep 2016 – present **Senior Research Fellow (SRF)**
Indian Institute of Science Education and Research Bhopal, Department of Chemistry
, India

Aug 2014 – Aug 2016 **Junior Research Fellow (JRF)**
Indian Institute of Science Education and Research Bhopal, Department of Chemistry

Bhopal, Madhya Pradesh, India

RG Statistics

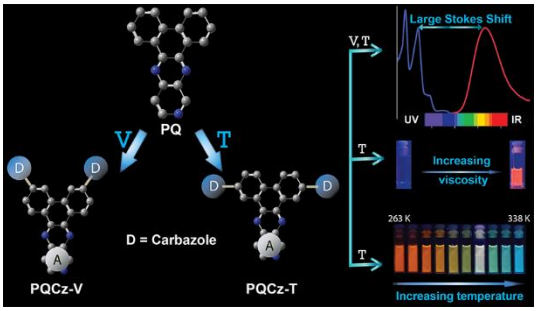
RG Score	13.81
Publications	4
Reads	238
Citations	8

Skills & Activities

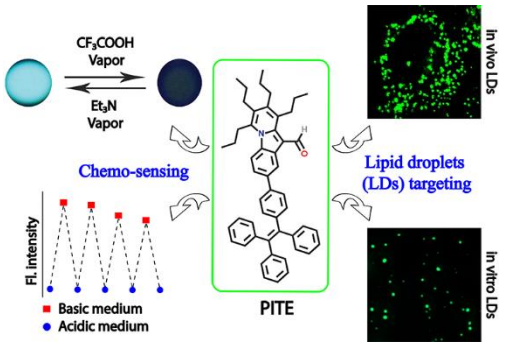
Skills	Steady-State Fluorescence, TCSPC, Photophysics, Fluorescence Imaging, Fluorescence Quenching, Bioimaging, Nanomaterials, Fluorescence Spectroscopy, Energy Transfer, Fluorescent Dye, Organic Synthesis
Languages	English, Bengali, Hindi
Scientific Memberships	Member of The Royal Society of Chemistry (M. No. 610541)
Interests	

Journal Publications

1. Bahadur Sk, Saurabh Khodia, Abhijit Patra: T and V-shaped donor-acceptor-donor molecules involving pyridoquinoxaline: large Stokes shift, environment-sensitive tunable emission and temperature-induced fluorochromism. *Chem. Commun.*, **2018**, DOI:10.1039/C7CC09261J

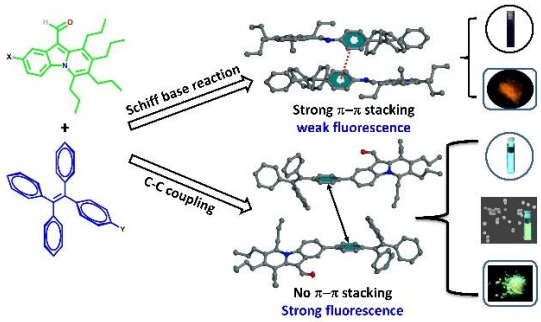


2. Pragyan Pallavi, Bahadur Sk, Palak Ahir, Abhijit Patra: Tuning the Förster Resonance Energy Transfer through Self-assembly Approach for Efficient White-light Emission in Aqueous Medium. *Chem – Eur. J.*, **2017**, DOI:10.1002/chem.201704437
3. Bahadur Sk, Pilendra Kumar Thakre, Raghuvir Singh Tomar, Abhijit Patra: A Pyridoindole-Based Multifunctional Bioprobe: pH-Induced Fluorescence Switching and Specific Targeting of Lipid Droplets. *Chem. - Asian J.*, **2017,** 18, 2501-2509. DOI:10.1002/asia.201700898



A versatile fluorescent probe, PITE exhibit pH induced switchable fluorescence in solution, nanoparticles and solid states. Strong fluorescence, a large Stokes shift, high photostability, and biocompatibility of PITE make it a viable probe for subcellular imaging. Extensive fluorescence microscopic studies by employing organisms including lower and higher eukaryotes reveal specific localization of PITE to lipid droplets (LDs).

4. Bahadur Sk, Abhijit Patra: C-C coupling over Schiff base condensation: A rational design strategy for a strongly fluorescent molecular material. *CrystEngComm*, **2016**, *18*, 4290-4294. DOI:10.1039/C5CE02489G



Schiff base condensation and C–C coupling between a biologically important heterocycle pyrido[1,2-a]indole (PI) and tetraphenylethylene (TE) led to the formation of weakly fluorescent PITE1 and strongly fluorescent PITE2, respectively. The photophysical phenomenon was rationalized by crystal structure analysis; PITE2 was found to exhibit strong fluorescence in solution, nanoparticles and solid state.

Conference Proceedings

1. Bahadur Sk, Pilendra K Thakre, Raghuvir Singh Tomar and Abhijit Patra, *Molecular interactions driven pyridoindole based multifunctional materials for switchable fluorescence and specifc targeting of lipid droplets*, National Workshop on Fluorescence & Raman Spectroscopy (FCS - 2017), Indian Institute Technology Guwahati (IITG), Guwahati, Assam, India, December 17-21, **2017**, p.no. 122.
2. Bahadur Sk, Pilendra K Thakre, Raghuvir Singh Tomar and Abhijit Patra, *Molecular interactions driven pyridoindole based materials for switchable fluorescence and chemo/ bio-sensing*, Smart Materials: Methods and Applications (SMMA - 2017), Indian Institute of Science Education and Research (IISER) Kolkata, Mohanpur, India, April 20-22, **2017**, p.no. 8.

3. Bahadur Sk, Anto James and Abhijit Patra, *Rational design strategy of a functional fluorophore: strong emission in the solution, nanoparticles and solid states*, Challenges in Organic Materials and Supramolecular Chemistry (ISACS18), Indian Institute of Science, Bangalore, India, November 19-21, **2015**, p.no. 59.

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Technical skills

Microsoft Office Word, Excel, Power Point, Adobe Photoshop, Adobe Acrobat, Adobe Dreamweaver, Adobe Illustrator, Adobe Lightroom, Adobe premiere, Wondershare Filmora, Origin, html and research related software like Endnote, WinGx, ChemDraw and MestReNova.