

Dr. Santosh Kumar Behera

Present Address:

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PO- Sunamuhin, PS- Odagaon, DIST- Nayagarh, Pin-752090, Odisha, India.

DOB: 15th April 1987, **Category:** OBC-NCL, **Gender:** Male,
Marital Status: Married

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Researcher ID: A-5534-2019 (Web of Science)

Education

- **2016: PhD in Chemical Science (Chemistry), 5th September 2016**
Department of Chemistry, Indian Institute of Technology (IIT) Guwahati, Assam, India
Supervisor: Prof. G. Krishnamoorthy
Thesis: *"Dual Fluorescence of a few Organic Molecules: Intramolecular Charge Transfer and Intramolecular Proton Transfer"*
- **2010: Master of Science in Chemistry, First class, (University Rank: 2)**
P.G. Department of Chemistry, Utkal University, Bhubaneswar, Odisha, India.
- **2008: Bachelor of Science (Chemistry, Physics and Mathematics), First class with distinction**
Nayagarh College, Nayagarh, Odisha (**College Topper**),
Affiliated to Utkal University, Bhubaneswar, Odisha, India (**University Rank: 2**)
- **2005: Higher Secondary School Leaving Certificate Examination in Science, First class**
RS Mahavidyalaya, Odagaon, Nayagarh, Odisha, India
Under CHSE, Odisha, India.
- **2003: High School Leaving Certificate Examination, (10th), First class**
ASN Kamasaragada, Ganjam, Odisha, India.
Under BSE, Odisha, India

Research Experiences

- **Sept'22 to till date: Marie Skłodowska-Curie Postdoc Fellow**, Technical University Munich, Chair of Biogenic Functional Materials, Campus Straubing for Biotechnology and Sustainability, Germany. (Advisor: Prof. Ruben D. Costa)
- **Nov'2020 to August'22: Postdoctoral Research Associate**, Materials Chemistry Department, CSIR-Institute of Minerals and Materials Technology (IMMT), Bhubaneswar-751013, Odisha. (Advisor: Dr. Yatendra S. Chaudhary)
- **Dec' 2018 to Sept' 2020: Postdoctoral researcher (Fellow of the Severo Ochoa Excellence Center)**, Madrid Institute for Advance Studies, IMDEA Nanoscience, Madrid, Spain (Advisor: Prof. Johannes Gierschner),
- **Jan 2017 to Sept 2018: Postdoctoral researcher (D. S Kothari Postdoctoral fellow)**, Department of Inorganic and Physical Chemistry, Indian Institute of Science (IISc.) Bangalore, Karnataka, India. (Advisor: Dr. P. Thilagar)
- **July 2016- Dec 2016: Research Associate**, Department of Inorganic and Physical Chemistry (IPC), Indian Institute of Science (IISc.) Bangalore, Karnataka, India. (Advisor: Dr. P. Thilagar)

Research Interests

Experimental Physical Chemistry:

Physical Photochemistry and Fluorescence Spectroscopy

- Dual emission mechanism (charge transfer, proton transfer and energy transfer)
- Photophysics of triplet harvesting luminescent organic molecules
- Luminescent organic nanoparticles and their applications
- Light emitting electrochemical cell

Teaching Assistantship

- CH 101 - **Chemistry** for B. Tech first year students (IIT Guwahati), July -Nov Semester 2014 and 2015.
- CH 535 - **Physical Chemistry Laboratory** for M.Sc. second year students, (IIT Guwahati), 2012-2013.

Future Teaching Interest

- 1) Advanced Fluorescence Spectroscopy
- 2) Photochemistry
- 3) Molecular Spectroscopy
- 4) Applications of Physical Methods in Chemistry
- 5) Analytical Chemistry and Physical-Organic Chemistry
- 6) Electronic-Photonic Materials
- 7) Physical Chemistry (Major topics: Atomic Structure, Chemical Kinetics, Chemical Thermodynamics, Chemical and Phase equilibria, Electrochemistry)
- 8) Green Chemistry

Honors/Awards/Fellowships

- 1) Marie Curie Individual Fellowship for Postdoctoral Research-2021.
- 2) Prof. Bimbardhar Nayak Memorial Award, Odisha Chemical Society, 2021.

- 3) Prof. Sripati Pani Memorial Award, Odisha Chemical Society, 2020.
- 4) Prof. Donald S Matteson and Prof. P K Jesthy Award, Odisha Chemical Society, 2019.
- 5) Chemical Science Best poster presentation award, Chemical Research Society India (CRSI) National Symposium in Chemistry, (July 14-16, 2017) at CSIR-IICT, Hyderabad.
- 6) UGC-Kothari Postdoctoral Fellowship, India-2016
- 7) Best Oral Presentation award at Indian Science Congress Association Bhubaneswar Chapter, KIIT University, December 12-13, 2016.
- 8) Best Oral Presentation award at Theme Meeting on Recent Trends in Spectroscopy, Indian Institute of Technology Madras, Tamil Nadu, India, June 20-21, 2014
- 9) Best Poster Presentation award at 3rd National Symposium on Functional Applications of Colorants, Institute of Chemical Technology, Mumbai, India, 2013
- 10) Senior Research Fellowship (**CSIR SRF**), July 2013.
- 11) Junior Research Fellowship and Eligibility for Lectureship (**JRF-NET**), 2011, conducted by Council of Scientific & Industrial Research (CSIR), India. AIR: 42
- 12) Graduate Aptitude Test in Engineering (**GATE**), India, 2011, Reg. No. CY 6030511, AIR:637, GATE score: 422.
- 13) Best Graduate award in Science from Nayagarh College, 2008

Peer Reviewed Journal Publications

1. **Santosh K. Behera**, Rubén D. Costa, Emerging hyperfluorescent emitters for solid-state lighting, *J. Mater. Chem. C*, 2023, **11**, 13647-13656. [As a corresponding author]
2. S. Jena, **Santosh K. Behera**, J. Eyyathiyil, M. Kitahara, Y. Imai, P. Thilagar, Modulating the Room Temperature Phosphorescence by Tweaking SOC and P = X Interactions (X = O, S, and Se) in Phosphoramides: Magnetic Circularly Polarized Luminescence from Achiral Phosphoramides. *Adv. Optical Mater.*, 2023, 2300923. IF: 10.05, ISSN: 2195-1071.
3. A. K. Dehury, **Santosh K. Behera**, S. K. Chirauri, S. Basu, Y. S. Chaudhary, Tuning the red emission to instigate intrinsic white light emission in the single-phase phosphor with excellent color rendering index, *Chemistry: An Asian Journal*, 2022, 17, e2022009. IF: 4.839, ISSN: 1861-4728 (print), 1861-471X (web).
4. R. Behura, P. P. Dash, P. Mohanty, S. Behera, M. Mohanty, R. Dinda, **Santosh K. Behera**, A. K. Barick, B. R. Jali, A Schiff base luminescent chemosensor for selective detection of Zn²⁺ in aqueous medium, *Journal of Molecular Structure*, 2022, 1264, 133310. IF: 3.841, ISSN:0022-2860. [As a corresponding author]
5. S. Jena, J. Eyyathiyil, **Santosh K. Behera**, M. Kitahara, Y. Imai, P. Thilagar, Crystallization Induced Room-Temperature Phosphorescence and Chiral Photoluminescence Properties of Phosphoramides, *Chem Sci.*, 2022, 13, 5893-5901. IF:9.969, ISSN 2041-6539 (web).
6. S. K. Sarkar, S. Jena, **Santosh K. Behera**, P. Thilagar, Synthesis and Characterization of Far-Red Emissive Boron Based Triads Showing Large Stokes Shifts: Optical, TRANES and Electrochemical Studies, *J. Org. Chem*, 2022, 87, 6, 3967-3977. IF: 4.198S
7. **Santosh K. Behera***, R. Kainda, S. Basu, Y. S. Chaudhary*, Single organic molecular systems for white light emission and their classification with associated emission mechanism, *Appl. Mater. Today*, 2022, 27, 101407 IF: 8.663, ISSN: 2352-9407 (print); 2352-9415 (web). [As a corresponding author]
8. Rajendra P. Nandi, Chinna Swamy P, D. Pandi, **Santosh K. Behera**, P. Thilagar, Effect of the Molecular Conformation on the Excitation Energy Transfer in Conformationally Constrained Boryl-BODIPY Dyads, *Inorganic Chemistry*, 2021, 60, 8, 5452-5462. IF-5.436, ISSN: 0020-1669 (print); 1520-510X (web)
9. **Santosh K. Behera**, Soo Young Park, Johannes Gierschner, Dual Emission: Klassen, Mechanismen and Bedingungen, *Angew. Chem.*, 2021, 133, 22804-22820. IF- 15.34, ISSN: 1433-7851 (print); 1521-3773 (web)
10. **Santosh K. Behera**, Soo Young Park, Johannes Gierschner, Dual Emission: Classes, Mechanisms and Conditions, *Angew. Chem. Int. Ed.*, 2021, 60, 22624-22638. IF- 15.34, ISSN: 1433-7851 (print); 1521-3773 (web)
11. A. Ozcelik, X. A. Pola-Otero, A. Nur, S. Gil, M. Talavera, L. Wang, **Santosh K. Behera**, J. Gierschner, Á. Peña-Gallego, R. Pereira-Cameselle, J. L. Alonso-Gómez, Distinct helical molecular orbitals through conformational lock, *Chem. Eur. J.*, 2020, 26, 17342-17349. IF- 5.020, ISSN: 0947-6539 (print), 1521-3765 (web).

12. Aditya K. Purohit, **Santosh K. Behera** and Pravin K. Kar, A terpyridine luminophore: synthesis, photophysics and selective metal ion -mediated hydrogelation, *Journal of Molecular Structure*, 2020, 1205, 127568. IF-3.841, ISSN: 0022-2860.
13. Samir Kumar Sarkar, Meenakshi Pegu, **Santosh K. Behera**, Siva Krishna Narra and Pakkirisamy Thilagar, Aggregation Induced and Polymorphism Dependent Thermally Activated Delayed Fluorescence characteristics of an Oligothiophene: Time Dependent Live Cell Multi-colour Imaging, *Chemistry: An Asian Journal*, 2019, 14, 4588-4593 (Selected for cover page), IF-4.839, ISSN: 1861-4728 (print), 1861-471X (web).
14. Yuna Song, Youngmu Kim, Yeonjin Noh, Varun Singh, **Santosh K. Behera**, Abasi Abudulimu, Kyeongwoon Chung, Reinhold Wannemacher, Johannes Gierschner, Larry Luer, Min Sang Kwon, Organic photocatalyst for ppm-level visible-light-driven reversible addition-fragmentation chain transfer (RAFT) polymerization with excellent oxygen tolerance, *Macromolecules*, 2019, 52 (15), 5538-5545. IF-6.057, ISSN: 0024-9297 (print), 1520-5835 (web).
15. G Rajendra Kumar, **Santosh K. Behera** and Pakkirisamy Thilagar, Room Temperature Phosphorescent Triarylborane Functionalized Iridium Complexes, *Dalton Transactions*, 2019, 48 (20), 6817-6823. IF-4.569, ISSN: 1477-9226 (print), 1477-9234 (web).
16. A. K. Satapathy, **Santosh K. Behera**, Ankit Yadav, Laxmi Narayan Mahour, K. L. Sandhya, C. V. Yelamaggad, B. Sahoo, Tuning the fluorescence of liquid crystal molecules: Effect of solvent polarity, *Journal of Luminescence*, 2019, 210, 371-375. IF- 4.171, ISSN: 0022-2313.
17. A. K. Satapathy, **Santosh K. Behera**, R. Kumar, K. L. Sandhya, C. V. Yelamaggad, B. Sahoo, Excited state intramolecular proton transfer emission in bent-core liquid crystals, *Journal of Photochemistry and Photobiology A: Chemistry*, 2018, 358, 186-191. IF- 5.141, ISSN: 1010-6030.
18. **Santosh K. Behera**, M. Pegu and G. Krishnamoorthy, Modulation of Twisted intramolecular Charge Transfer Emission of 2-(4'-N,N-dimethylaminophenyl)imidazopyridines in aqueous cucurbit-7-uril complexes, *Chemistry Select*, 2018, 3 (16), 4147 – 4155. IF-2.307, ISSN: 2365-6549.
19. **Santosh K. Behera**, and G. Krishnamoorthy, Perturbation of cationic equilibrium by cucurbit-7-uril, *Physical Chemistry Chemical Physics*, 2017, 19 (29), 19234-19242. IF-3.945, ISSN: 1463-9076 (print), 1463-9084 (web).
20. **Santosh K. Behera**, A. Mukherjee, G. Sadhuragiri, P. Elumalai, M. Sathiyendiran, M. Kumar, B. B. Mandal, and G. Krishnamoorthy, Aggregation Induced Enhanced and Exclusive Highly Stoke Shifted Emission from an Excited State Intramolecular Proton Transfer Exhibiting Molecule, *Faraday Discuss.*, 2017, 196, 71-90. IF- 4.394, ISSN: 1359-6640 (print), 1364-5498 (web).
21. **Santosh K. Behera**, G. Sadhuragiri, P. Elumalai, M. Sathiyendiran, and G. Krishnamoorthy, Exclusive Tautomer Emission from a 2-(2'-Hydroxyphenyl)benzimidazole Derivative, *RSC Advances.*, 2016, 6 (64), 59708-59717. IF- 4.036 (64), ISSN: 2046-2069
22. **Santosh K. Behera**, and G. Krishnamoorthy, Relay Proton Transfer Triggered Twisted Intramolecular Charge Transfer, *Photochemical & Photobiological Sciences*, 2015, 14 (12), 2225-2237. IF- 4.328, ISSN: 1474-905X (print), 1474-9092 (web).
23. **Santosh K. Behera**, Ananda Karak, and G. Krishnamoorthy, Photophysics of 2- (4'-Amino-2'-hydroxyphenyl) -1H-imidazo-[4,5-c]pyridine and Its Analogues: Intramolecular Proton Transfer versus Intramolecular Charge Transfer, *The Journal of Physical Chemistry B*, 2015, 119 (6) , 2330-2344 (Special Issue Article). IF- 3.466, ISSN: 1520-6106 (print), 1520-5207 (web).
24. F.A.S. Chipem, **Santosh K. Behera**, G. Krishnamoorthy, Excited State Proton Transfer of 2-(2'-hydroxyphenyl)benzimidazole and Its Nitrogen substituted Analogues in Bovine Serum Albumin, *Photochemical & Photobiological Sciences*, 2014, 13, 1297-1304. IF- 4.328, ISSN: 1474-905X (print), 1474-9092 (web).
25. F.A.S. Chipem, **Santosh K. Behera**, G. Krishnamoorthy, Ratiometric Fluorescence Sensing Ability of 2-(2'-hydroxyphenyl)benzimidazole and Its Nitrogen Substituted Analogues Toward Metal Ions, *Sensors and Actuators B: Chemical* 2014, 191, 727-733. IF- 9.221, ISSN: 0925-4005
26. Anasuya Mishra, Saugata Sahu, Nihar Dash, **Santosh K. Behera**, and G. Krishnamoorthy, Double Proton Transfer Induced Twisted Intramolecular Charge Transfer Emission in 2- (4'-N,N-Dimethylaminophenyl)imidazo[4,5-b]pyridine. *The Journal of Physical Chemistry B*, 2013, 117 (32), 9469-9477. IF- 3.466, ISSN: 1520-6106 (print), 1520-5207 (web).
27. Francis A. S. Chipem, **Santosh K. Behera**, and G. Krishnamoorthy, Enhancing Excited State Intramolecular Proton Transfer in 2-(2'-Hydroxyphenyl)benzimidazole and Its Nitrogen-Substituted Analogues by β -Cyclodextrin: The Effect of Nitrogen Substitution. *The Journal of Physical Chemistry A*, 2013, 117 (20), 4084-4095. IF-2.944, ISSN: 1089-5639 (print), 1520-5215 (web).

Invited Talks

- 1) *Title of the talk: Dual emissive organic siblings*, Department of chemistry, Nayagarh auto college Nayagarh, Odisha, India, dt: 09/02/20018.
- 2) *Title of the talk: Recent advances of fluorescence spectroscopy*, Department of chemistry, Raghunath Samabaya Mahavidyalaya, Odagaon, Odisha, India, dt: 18/07/2018.
- 3) *Title of the talk: Recent advances of optical spectroscopy*, Department of chemistry, IGIT Sarang, Dhenkanal, Odisha, India, dt:11 /01/2020.
- 4) *Title of the talk: Photochemistry: Principles and Applications*, Department of chemistry, Nayagarh auto college Nayagarh, Odisha, India, dt: 27/08/2020.(Webinar)
- 5) *Title of the talk: Recent advances of optical spectroscopy*, Department of Chemistry, College of Basic Science and Humanities OUAT, Bhubaneswar, Odisha dt:16/10/20.(Webinar)

Conference Proceedings

- 1) **S. K. Behera**, N. Dash and G. Krishnamoorthy, *Photo physics of N-Alkylated product of 2-(4'-N,N-Dimethylaminophenyl)pyrido[3,5-d]imidazole*, Conference on Photochemistry and Luminescence, IIT Guwahati, March-2012.
- 2) A. Mishra, S. Sahu, **S. K. Behera**, and G. Krishnamoorthy, *Spectral Characteristics of Methyl Derivatives of 2-(4'-N,N-Dimethylaminophenyl)imidazo[4,5-b]pyridine*, Conference on Photochemistry and Luminescence, IIT Guwahati, March-2012
- 3) **S.K. Behera** and G. Krishnamoorthy, *Proton Transfer Induced Twisted Intramolecular Charge Transfer in 2-(4'-N,N-dimethylaminophenyl)imidazo[4,5-c]pyridine*, 3rd National Symposium on Functional Applications of Colorants, Institute of Chemical Technology, Mumbai, October-2013 (**Selected as Best Poster Presentation**).
- 4) **S. K. Behera** and G. Krishnamoorthy, *Spectral Properties of 2-(4'-N, N-dimethylaminophenyl)imidazo[4,5-c]pyridine in Binary Solvent Mixture*. Theme Meeting on Recent Trends in Spectroscopy, Indian Institute of Technology Madras, Tamil Nadu, India, June 20-21, 2014. (**Selected as Best Oral Presentation**).
- 5) **S.K. Behera**, A. Karak and G. Krishnamoorthy, *Photophysics of 2-(4'-Amino-2'-hydroxyphenyl)-1H-imidazo-[4,5-c]pyridine and Its Analogues: Intramolecular Charge Transfer Suppressed by Intramolecular Proton Transfer*, 8th Asian Photochemistry Conference (APC-2014), IISER- NIIST(CISR)Trivandrum, Kerala, Under the auspices of Photosciences Research Society of India ,November 9 - 13, 2014,Kovalam, Kerala, India.
- 6) **S. K. Behera** and G. Krishnamoorthy, *Intramolecular Charge Transfer Suppressed by Intramolecular Proton Transfer*, Research Conclave, organized by the PhD council of the Students Academic Board (SAB), IIT Guwahati, 23rd-26th March-2015.
- 7) **S. K. Behera** and G. Krishnamoorthy, *Role of Protic Solvents in the Twisted Intramolecular Charge Transfer of 2-(4'-N, N-dimethylaminophenyl)imidazo[4,5-c]pyridine: A Relay Proton Transfer*, ChemConvene, Department Chemistry, IIT Guwahati, 8th April -2015.
- 8) **S. K. Behera** and G. Krishnamoorthy, *Spectral Characteristics of 2-(4'-N,N-Dimethylamino)phenylimidazo[4,5-c]pyridine in Cucurbit-7-uril Cavity*, 19 CRSI National Symposium in chemistry (CRSI NSC-19), July, 2016, Department of Chemistry University of North Bengal Darjeeling – 734 013, West Bengal, India.
- 9) **S. K. Behera**, *Photophysics of a New 2-(2'-Hydroxyphenyl)benzimidazole Derivative: A Combined Experimental and Theoretical Study*, National Seminar on Science and Technology for National Development in India, Indian Science Congress Association Bhubaneswar Chapter, KIIT University, December 12-13, 2016. (**Selected as a Best Oral Presentation**)

- 10) **S. K. Behera**, [Aggregation Induced Enhance Tautomer Emission of 2-\(2'-Hydroxyphenyl\)benzothiazole Derivative: Mechanism and Applications](#), 30th Annual conference of Orissa Chemical Society (OCS), Department of Chemistry, KIIT university, December 24th -25th, 2016.
- 11) S. Jena, **S. K. Behera** and P.Thilagar, [Modulating the Optical Characteristics of Triaryl Phosphine Oxide/Sulfide by Resonance Engineering](#), IPC Day Symposium, Indian Institute of Science (IISc.) Bangalore, January 27-28, 2017.
- 12) **S. K. Behera**, Chinna A. Swamy, P. Thilagar, [Dual Emissive Boryl-BODIPY Dyads](#), International Conference on "Sophisticated Instruments in Modern Research" 30th June and 1st July, 2017.
- 13) **S. K. Behera**, Chinna A. Swamy, P. Thilagar, [Dual Emissive Boryl-BODIPY Dyads: Synthesis, Photophysics and Sensing Application](#), 21 CRSI National Symposium and CRSI-ACS national symposium in chemistry (CRSI NSC-19), 13-16 July, 2017 at IICT Hyderabad, India. (**Selected as a Best Poster Presentation**)
- 14) **S. K. Behera**, Chinna A. Swamy, P. Thilagar, [Dual Emissive Boryl-BODIPY Dyads: Synthesis, Photophysics and Sensing Application](#), 8th East Asia Symposium on Functional Dyes and Advanced Materials (EAS8), to be held at CSIR-NIIST, Thiruvananthapuram, Kerala, INDIA on 20-22 September 2017.
- 15) **S. K. Behera** and G. Krishnamoorthy, [Dual Emissive Organic molecules](#), Discussion Meeting on Progress in Organic Optoelectronics and Energy Conversion, IMDEA Nanoscience, Madrid, Spain 13-14 December 2018.
- 16) **S. K. Behera** and G. Krishnamoorthy, [Proton Transfer Induced TICT Emission in Conjugated Donor-Acceptor Systems: A Combined Experimental and Theoretical Studies](#), 10th European Symposium on Computing pi-Conjugated Compounds (CpiC), Valencia (Spain), 1-2 February 2019.
- 17) **S. K. Behera** A. Abudulimu, Y. Song, Y. Kim, V. K. Singh, K. Chung, R. Wannemacher, J. Gierschner, L. Lüer, and M. S. Kwon, [Excited State Features and Dynamics of a Highly Efficient All-Organic Photocatalyst for Polymerization Reactions](#), 9th Early Stage Researchers Workshop in Nanoscience, IMDEA Nanoscience, 2019, 26-27th June, Madrid, Spain.
- 18) **S. K. Behera** A. Abudulimu, Y. Song, Y. Kim, V. K. Singh, K. Chung, R. Wannemacher, J. Gierschner, L. Lüer, and M. S. Kwon, [Excited State Features and Dynamics of a Highly Efficient All-Organic Photocatalyst for Polymerization Reactions](#), 5th International Fall School on Organic electronics-2019 (IFSOE-2019), 15-20 September, 2019, Moscow, Russia.
- 19) **S. K. Behera**, Y. Kwon, R. Wannemacher, M. S. Kwon, J. Gierschner, [Photophysics of Dual Emissive Organic Donor-pi-Acceptor Molecules](#), Symposium on "Progress in Organic Optoelectronics & Energy Conversion", Malaga (Spain), Dec. 12th/13th, 2019
- 20) **S. K. Behera**, Y. Kwon, R. Wannemacher, M. S. Kwon, J. Gierschner, [Photophysics of Dual Emissive Organic Donor-pi-Acceptor Molecules](#), 11th European Symposium on Computing pi-Conjugated Compounds (CpiC), Division of Theoretical Physics and the Division of Physical Chemistry of the Institut Ruđer Bošković, in Zagreb (Croatia), January 30th – February 1st 2020.
- 21) **S. K. Behera** A. Abudulimu, Y. Song, Y. Kim, V. K. Singh, K. Chung, R. Wannemacher, J. Gierschner, L. Lüer, and M. S. Kwon, [TADF Emitter based Photocatalyst for polymerization reaction, virtual conference](#), The 5th International TADF Workshop, Japan, December 7-8, 2020.
- 22) **S. K. Behera**, Dalton New Talent: Americas Desktop Seminar (Webinar) attended, December 2, 2021.
- 23) **S. K. Behera**, [Impact of Heteroatom Substitution on Photophysics of Dual-State Emissive 2-\(2'-hydroxyphenyl\)benzazole Dyes](#), 35th Annual conference of Orissa Chemical Society (OCS), Department of Chemistry, Maharaja Sriram Chandra Bhanja Deo University, India, December 18th - 19th, 2021

Miscellaneous Scientific Contribution

1. Publication in e-Magazine, [Science Horizon](#), Odisha Bigyan Academy, topic: [Pyrite, The Fool's Gold!](#), volume 6, issue 5, May 2021.

Scientific Skills

- UV-Vis-NIR Spectrometer (Perkin Elmer, Varian)
- Steady-State and Time-Resolved (TCSPC) Spectrofluorimeter (Edinburgh Instruments, IBH, Perkin Elmer, Varian, and Jobin Yvon)
- Quantum yield measurements (Absolute and Relative)
- LT fluorescence measurements
- FT-IR Spectrometer (Perkin Elmer, Varian, Thermo Scientific),
- NMR Spectrometer (Varian 400 MHz FT-NMR)
- XRD
- Raman spectrometer
- Cyclovoltammetry
- DSC and TGA
- SEM/FESEM
- DLS measurement
- Gaussian 03/05/09/16 (Density Functional theory (DFT) and Time Dependent DFT (TDDFT))
- Simple Organic Synthesis, solvent drying for optical measurements.

Membership of Professional Bodies

- Lifetime member of Odisha Chemical Society
- Three years membership of European C π C Society, 2019-2021.

Miscellaneous information

Languages Known

- English – (Read/Write/Speak)
- Hindi - (Read/Write/Speak)
- Odia - (Read/Write/Speak)-Native

Country Visited (Purpose)

Spain (Postdoctoral Studies), Russia (Attending Academic Conference), Croatia (Attending Academic Conference), Germany ((Postdoctoral Studies)

Reviewer for the Journals

1. Journal of Electronic Materials (Springer), since 2019
2. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy (Elsevier), since 2023.