**Dr. Sasanka Dalapati** received his M. Sc. (2008) and PhD (2012) degree in chemistry from the University of Calcutta, India. He was awarded a very competitive IMS (Institute for Molecular Science) postdoctoral fellowship and served as IMS fellow (2013-2015) at the Department of Materials Molecular Science, IMS, Japan. He received the prestigious JSPS (Japan Society for the Promotion of Science) postdoctoral fellowship from the same research group. He worked at IMS and JAIST (Japan Advanced Institute of Engineering Science and Technology), Japan (2015-2017). In 2017, he returned with an independent DST-Inspire Faculty position and served for the Department of Chemistry, IIEST (Indian Institute of Engineering Science and Technology), Shibpur (2017-2020). He was awarded the highly prestigious Marie-Curie fellowship in 2018 and continued his research career at the Department of Chemistry, Ghent University, Belgium (2019-2020). He has served at the Institute of Chemical Technology (ICT) - Indian Oil Odisha Campus, Bhubaneswar, India, as an Assistant Professor (2020).


**Name** : Dr. Sasanka Dalapati
**Designation** : Assistant Professor
**Date of Joining** : 15/06/2020
**Email** : sdalapati@gmail.com/ sasanka@cutn.ac.in
**Office Address** :Department of Materials Science
School of Technology
Central University of Tamil Nadu (CUTN)
Nagakudi,Thiruvarur- 610 005, Tamil Nadu, India

**Research area** : Advanced Functional materials, Photochemistry, Host-guest chemistry, light emitting materials, Photocatalysis, Sensors, Porous organic polymers for energy and environment, Water purification, Gas adsorption

## Educational Details:

| Degree | University/Institute | Subject | Year |
|---|---|---|---|
| **PhD** | University of Calcutta | Chemistry | 2012 |
| **M. Sc.** | University of Calcutta | Chemistry | 2008 |
| **B. Sc.** | University of Calcutta | Chemistry | 2006 |

## Past Experiences (Teaching and Research):

| Designation | Period | Organization/Institution | Place |
|---|---|---|---|
| **Assistant Professor** | Feb'2020 – Mar'2020 | Institute of Chemical Technology (ICT) Indian Oil Odisha Campus | India |
| **Marie-Curie fellow** | Sept'2019 – Feb'2020 | Ghent University | Belgium |
| **DST-Inspire Faculty** | Apr'2017 – Jan'2020 | Indian Institute of Engineering Science and Technology (IIEST), Shibpur | India |
| **JSPS postdoc fellow** | Apr'2015 – Mar'2017 | Institute for Molecular Science (IMS) and Japan Advanced Institute of Engineering Science and Technology (JAIST) | Japan |
| **IMS postdoc fellow** | Mar'2013 – Mar'2015 | Institute for Molecular Science (IMS) | Japan |
| **Guest lecturer** | Jul'2012 – Dec'2012 | Sree Chaitanya College, Habra, WB | India |

## Awards and Fellowships:

1. Marie Sklodowska-Curie Actions Individual Fellowship (MSCA-IF), **2018 (2Y)**, European Commission, fellowship received from Sept'2019 to Feb'2020.
2. Inspire Faculty Award, **2017 (5Y)**, DST, India, fellowship received from Apr'2017 to Aug'2020.
3. JSPS (Japan Society for the Promotion of Science) fellow, **2014 (2Y)**, Japan, fellowship received from Apr'2015 to Mar'2017.
4. IMS (Institute for Molecular Science) fellow, **2013 (3Y)**, IMS, Japan, fellowship received from Mar'2013 to Mar'2015.
5. National Eligibility Test (NET), **2008 (5Y)**, CSIR, India, fellowship received from Sept'2008 to Dec'2012.
6. Graduate Aptitude Test in Engineering (GATE), **2008**, MHRD, India
7. National Scholarship Scheme, **2003**, MHRD, India

## Selected Publications:

- S. Ruidas, A. Das, S. Kumar, **S. Dalapati**, U. Manna, A. Bhaumik, "Non-Fluorinated and Robust Superhydrophobic Modification on Covalent Organic Framework for Crude-Oil-in-Water Emulsion Separation", ***Angew. Chem. Int. Ed.***, DOI: org/10.1002/ange.202210507, I.F. 16.823.
- S. Abednatanzi, P. G. Derakhshandeh, **S. Dalapati**, S. KP Veerapandian, A.-C. Froissart, J. D. Epping, R. Morent, N. D. Geyter, P. V. D. Voort, "Metal-free chemoselective reduction of nitroarenes catalyzed by covalent triazine frameworks: The role of embedded heteroatoms", ***ACS Appl. Mater. Interfaces***, 2022, 14, 15287-15297, I.F.: 10.383.
- S. P. G. Derakhshandeh, S. Abednatanzi, L. Bourda, **S. Dalapati**, A. Abalymov, M. Meledina, Y.-Ya Liu, A. G. Skirtach, K. V. Hecke, A. M. Kaczmarek, P. V. D. Voort, "A lanthanide-functionalized covalent triazine framework as a physiological molecular thermometer" ***J. Mat. Chem. C***, 2021, 9, 6436-6444, I.F.: 8.067.
- S. Chatterjee, P. Bhanja, D. Ghosh, P. Kumar, S. K. Das, **S. Dalapati**, A. Bhaumik, "Metformin-templated nanoporous ZnO and covalent organic framework heterojunction photoanode for photoelectrochemical water oxidation", ***ChemSusChem***, 2021, 14, 408 - 416. I.F. 9.14.
- S. Mondal, B. Mohanty, M. Nurhuda, **S. Dalapati**, R. Jana, M. Addicoat, A. Datta, B. K. Jena, A. Bhaumik, "A thiadiazole-based covalent organic framework: A metal-free electrocatalyst toward oxygen evolution reaction", ***ACS Catal***., 2020, 10, 5623 - 5630. I.F. 13.7.
- K. Geng, T. He, R. Liu, **S. Dalapati**, K. T. Tan, Z. Li, S. Tao, Y. Gong, Q. Jiang, D. Jiang, Covalent organic frameworks: Design, synthesis, and functions, ***Chem. Rev.***, **2020**, 120, 8814–8933, I.F. 60.622.
- P. Wang, X. Chen, Q. Jiang, M. Addicoat, N. Huang, **S. Dalapati**, T. Heine, F. Huo, D. Jiang, High precision size recognition and separation in synthetic 1D nanochannels, ***Angew. Chem. Int. Ed.***, **2019**, 58, 15922-15927, I.F. 16.823.
- Q. (Ray) Zeng, Y. Lib, K.-H. Wu, N. Huang, **S. Dalapati**, B.-J. Su, L.-Y. Jang, I. R. Gentle, D. Jiang, D.-W. Wang, "Long-chain solid organic polysulfide cathode for high-capacity secondary lithium batteries", ***Energy Storage Materials***, 2018, 12, 30-36, I.F. 20.831.
- E. Jin, M. Asada, Q. Xu, **S. Dalapati**, M. Addicoat, M. A Brady, H. Xu, T. Nakamura, T. Heine, Q. Chen, D. Jiang, Two-dimensional $sp^2$ carbon–conjugated covalent organic frameworks" ***Science***, **2017**, 357, 673 - 676, I.F. 63.714.
- **S. Dalapati**, E. Jin, M. Addicoat, T. Hein, D. Jiang, Highly emissive covalent organic frameworks, ***J. Am. Chem. Soc.***, **2016**, 138, 5797-5800 (**highlighted in ACS select virtual issue**, **Press released** at JAIST, Japan), I.F. 16.383.
- **S. Dalapati**, C. Gu, D. Jiang, Luminescent porous polymers based on aggregation-induced mechanism: Design, synthesis and functions, ***Small***, **2016**, 12, 6513-6527 (**Review Article**), I.F. 15.15.
- **S. Dalapati**, M. Addicoat, S. Jin, T. Sakurai, J. Gao, H. Xu, S. Irle, S. Seki, D. Jiang, "Rational design of crystalline supermicroporous covalent organic frameworks with triangular topologies, ***Nat. Commun.***, **2015**, 6:7786, I.F. 17.69.
- **S. Dalapati**, S. Jin, J. Gao, Y. Xu, A. Nagai, D. Jiang, An azine-linked covalent organic framework, ***J. Am. Chem. Soc.***, **2013**, 135, 17310-17313, I.F. 16.383.

# External Research Projects:

## 2022-2024: ongoing

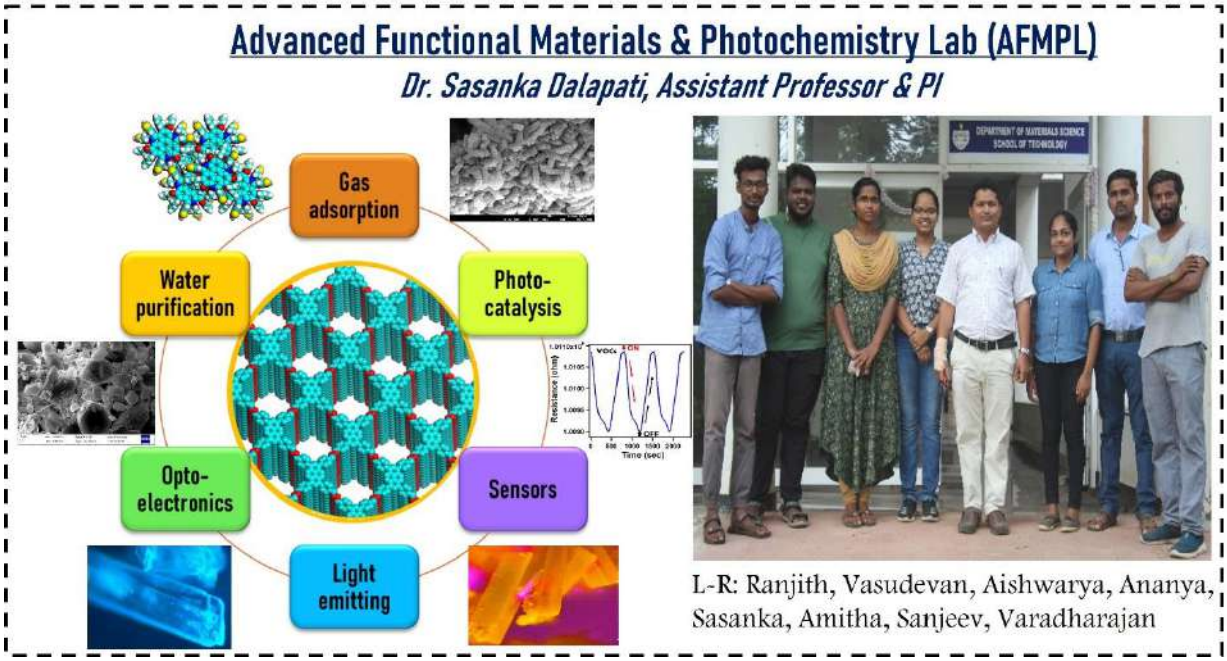
***Title of the Project***: 'Investigation on the effectiveness of eggshell bio-waste for multi-stage water purification'
***Funding agency/project***: SERB-SRG
***Research grant sanctioned***: INR 30.404 Lakhs

## 2017-2023: Completed

***Title of the Project***: "(I) Exploration of AIE Active Supramolecular Aggregates and Polymers: Design Strategy, Syntheses and Applications and (II) Crystalline Porous Organic Materials: Diversity and Applications"
***Funding agency/project***: DST
***Research grant sanctioned***: INR 28 Lakhs

# Research Lab:

SD-Lab-infrastructure.pdf




# Other Information:

https://cutn.irins.org/profile/249431#expertise_information_panel

**Google Scholar**: https://scholar.google.co.in/citations?user=YXp3m_0AAAAJ&hl=en