

Nature Index Publications

1. Reis, P.C., Thottathil, S.D. and Prairie, Y.T., The role of methanotrophy in the microbial carbon metabolism of temperate lakes. *Nature Communications*, 2021, 13, 1-9. <https://doi.org/10.1038/s41467-021-27718-2>
2. Singh, R., Akhil, S., Dutt, V.V. and Mishra, N., Study of Shell Thickness-Dependent Charge Transfer Dynamics in Green-Emitting Core/Shell Giant Quantum Dots. *Inorganic chemistry*, 2021, 61, 1059–1066. <https://doi.org/10.1021/acs.inorgchem.1c03185>
3. Mishra, P., Lee, J., Kumar, D., Lauro, R.O., Costa, N., Pathania, D., Kumar, S., Lee, J. and Singh, L., Engineered Nanoenzymes with Multifunctional Properties for Next-Generation Biological and Environmental Applications. *Advanced Functional Materials*, 2021, 2108650. <https://doi.org/10.1002/adfm.202108650>
4. Jani, H.; Linghu, J.; Hooda, S.; Chopdekar, R. V; Li, C.; Omar, G. J.; Prakash, S.; Du, Y.; Yang, P.; Banas, A.; et al. Reversible Hydrogen Control of Antiferromagnetic Anisotropy in α -Fe₂O₃. *Nat. Commun.* 2021, 12 (1), 1668. <https://doi.org/10.1038/s41467-021-21807-y>.
5. Pedireddy, S.; Jimenez-Sandoval, R.; **Ravva, M. K.**; Nayak, C.; Anjum, D. H.; Jha, S. N.; Katuri, K. P.; Saikaly, P. E. Harnessing the Extracellular Electron Transfer Capability of *Geobacter Sulfurreducens* for Ambient Synthesis of Stable Bifunctional Single-Atom Electrocatalyst for Water Splitting. *Adv. Funct. Mater.* 2021, 31 (22), 2010916. <https://doi.org/https://doi.org/10.1002/adfm.202010916>.
6. Scalable Production of Cobalt Phthalocyanine Nanotubes: Efficient and Robust Hollow Electrocatalyst for Ammonia Synthesis at Room Temperature, Uttam Kumar Ghorai, Sourav Paul, Biswajit Ghorai, Ashadul Adalder, Samadhan Kapse, **Ranjit Thapa**, Abharana Nagendra, and Amal Gain, *ACS Nano*, 2021, 15, 5230. <https://doi.org/10.1021/acsnano.0c10596>
7. Observation of interacting polaronic gas behavior in Ta-doped TiO₂ thin films via terahertz time-domain spectroscopy, Liang Cheng, Tarapada Sarkar, James Lourembam, **M.Motapathula**, Daming Zhao, Roxanne Tutchton, Jian-Xin Zhu, Thirumalai Venkatesan and Elbert E.M. Chia, *Applied Physics Letters*, 117, 12 (2020). <https://doi.org/10.1063/5.0022775>
8. Mendoza, Senén D., Eliza S. Nieweglowska, **Sutharsan Govindarajan**, Lina M. Leon, Joel D. Berry, Anika Tiwari, Vorrapon Chaikerasitak, Joe Pogliano, David A. Agard, and Joseph Bondy-Denomy. “A Bacteriophage Nucleus-like Compartment Shields DNA from CRISPR Nucleases.” *Nature* 2020. <https://doi.org/10.1038/s41586-019-1786-y>.
9. Hari Balakrishnan, Madasamy, and **Subramaniyan Mannathan**. Palladium/Copper-Catalyzed Denitrogenative Alkylidenation and Ortho -Alkynylation Reaction of 1,2,3-Benzotriazin-4(3H)-Ones. *Organic Letters*, 2020. <https://doi.org/10.1021/acs.orglett.9b04297>.
10. Juvaid, M. M., Soumya Sarkar, Pranjal Kumar Gogoi, **Siddhartha Ghosh**, Meenakshi Annamalai, Yung-Chang Lin, Saurav Prakash, et al. “Direct Growth of Wafer-Scale, Transparent, p-Type Reduced-Graphene-Oxide-like Thin Films by Pulsed Laser Deposition.” *ACS Nano* 14, no. 3 (March 24, 2020): 3290–98. <https://doi.org/10.1021/acsnano.9b08916>.

11. Chauhan, Jyoti, **Mahesh K. Ravva**, Ludovic Gremaud, and Subhabrata Sen. “Blue LED Mediated Intramolecular C–H Functionalization and Cyclopropanation of Tryptamines: Synthesis of Azepino[4, 5-b]Indoles and Natural Product Inspired Polycyclic Indoles.” *Organic Letters*, **2020**. <https://doi.org/10.1021/acs.orglett.0c01559>
12. Kim, Jong Hun, Changbae Hyun, Hangyel Kim, **Jatis Kumar Dash**, Kyuwook Ihm, and Gwan-Hyoung Lee. “Thickness-Insensitive Properties of α -MoO₃ Nanosheets by Weak Interlayer Coupling.” *Nano Letters*, **2019**. <https://doi.org/10.1021/acs.nanolett.9b03701>.
13. Dutta, Pratip K., Jyoti Chauhan, **Mahesh Kumar Ravva**, and **Subhabrata Sen**. “Directing-Group-Assisted Manganese-Catalyzed Cyclopropanation of Indoles.” *Organic Letters*, **2019**. <https://doi.org/10.1021/acs.orglett.9b00150>.
14. Jyoti Chauhan, **Mahesh Kumar Ravva**, Subhabrata Sen, Harnessing autooxidation of aldehydes: In situ iodoarene catalysed synthesis of substituted 1, 3, 4-oxadiazole, in presence of molecular oxygen, *Organic Letters*, **2019**, <https://doi.org/10.1021/acs.orglett.9b02542>
15. Paternò, Giuseppe M., **Nimai Mishra**, Alex J. Barker, Zhiya Dang, Guglielmo Lanzani, Liberato Manna, and Annamaria Petrozza. “Broadband Defects Emission and Enhanced Ligand Raman Scattering in 0D Cs₃Bi₂I₉ Colloidal Nanocrystals.” *Advanced Functional Materials*, **2019**. <https://doi.org/10.1002/adfm.201805299>.
16. Liao, Hailiang, Chengyi Xiao, **Mahesh Kumar Ravva**, Yazhou Wang, Mark Little, Maud V. C. Jenart, Ada Onwubiko, et al. “Synthesis and Properties of Isoindigo and Benzo[1,2-b:4,5-b']Bis[b]Benzothiophene Oligomers.” *Chemical Communications*, **2018**, <https://doi.org/10.1039/C8CC05608K>.
17. Sujatha, Chandragiri, Chandra Shekar Bhatt, **Mahesh Kumar Ravva**, **Anil K. Suresh**, and **Kayambu Namitharan**. “Copper-Catalyzed Ring-Expansion Cascade of Azirines with Alkynes: Synthesis of Multisubstituted Pyridines at Room Temperature.” *Organic Letters*, **2018**. <https://doi.org/10.1021/acs.orglett.8b01090>.
18. Almeida, Guilherme, Olivia J. Ashton, Luca Goldoni, Daniela Maggioni, Urko Petralanda, **Nimai Mishra**, Quinten A. Akkerman, Ivan Infante, Henry J. Snaith, and Liberato Manna. “The Phosphine Oxide Route toward Lead Halide Perovskite Nanocrystals.” *Journal of the American Chemical Society*, **2018**. <https://doi.org/10.1021/jacs.8b08978>.
19. Hari Balakrishnan, Madasamy, Kotturaja Sathriyan, and **Subramaniyan Mannathan**. “Nickel-Catalyzed Denitrogenative Cross-Coupling Reaction of 1,2,3-Benzotriazin-4(3H)-Ones with Organoboronic Acids: An Easy Access to Ortho -Arylated and Alkenylated Benzamides.” *Organic Letters*, **2018**. <https://doi.org/10.1021/acs.orglett.8b01401>.