

List of Publications

A. Publication During the Calendar year 2021

• Department of Chemical Sciences

1. **A. R. Choudhury, M. Karanam, M. Joshi, I. Verma, A. Gulati, C. Budhwar, S. Rani, A. Bhalla, P. Garg, A. Mukhopadhyay, K. Raza and D. Sagarika (2021).** Pharmaceutical cocrystallization: polymorphs, salts and co-crystals. *Acta Crystallographica Section a Foundations and Advances*, 77(a2), C878–C878. <https://doi.org/10.1107/s0108767321088206>
2. **Abhishek Kundu, Dhananjay Dey, Subhankar Pal and Debashis Adhikari (2021).** Pyrazole-Mediated C–H Functionalization of Arene and Heteroarenes for Aryl–(Hetero)aryl Cross-Coupling Reactions. *The Journal of Organic Chemistry*, 86(21), 15665–15673. <https://doi.org/10.1021/acs.joc.1c02234>
3. **Agastya P. Bhati, S. Goyal, Ram Yadav and Narayanasami Sathyamurthy (2021).** Pattern formation in *Passiflora incarnata*: An activator-inhibitor model. *Journal of Biosciences*, 46(3). <https://doi.org/10.1007/s12038-021-00202-1>
4. **Ajay Kumar, Sharmilaa Bhattacharya, Diptimayeea Behera, Praveen K.Mishra, Ankit Yadav and Ambili Anoop (2021).** Distribution and characteristics of microplastics and phthalate esters from a freshwater lake system in Lesser Himalayas. *Chemosphere*, 283, 131-132. <https://doi.org/10.1016/j.chemosphere.2021.131132>
5. **Ajit Das, Mrinal K.Adak, Nagendranath Mahata, and Bhaskar Biswasd (2021).** Wastewater treatment with the advent of TiO₂ endowed photocatalysts and their reaction kinetics with scavenger effect. *Journal of Molecular Liquids*, 338, 116479. <https://doi.org/10.1016/j.molliq.2021.116479>
6. **Akhila Kadyan, Anil Shaji and Jino George (2021).** Boosting Self-interaction of Molecular Vibrations under Ultrastrong Coupling Condition. *The Journal of Physical Chemistry Letters*, 12(17), 4313–4318. <https://doi.org/10.1021/acs.jpcllett.1c00552>
7. **Akshi Deshwal and Subhabrata Maiti (2021).** Macromolecular Crowding Effect on the Activity of Liposome-Bound Alkaline Phosphatase: A Paradoxical Inhibitory Action. *Langmuir*, 37(23), 7273–7284. <https://doi.org/10.1021/acs.langmuir.1c01177>
8. **Alokananda Chanda, Sadhika Khullar and Sanjay K. Mandal (2021).** Luminescent, Helical and Highly Stable Zn(II) and Cd(II) Coordination Polymers: Structural Diversity and Selective Sensing of 4-Nitroaniline in Water. *European Journal of Inorganic Chemistry*, 2021(26), 2595–2605. <https://doi.org/10.1002/ejic.202100262>
9. **Amreen K Bains, Ayanangshu Biswas and Debashis Adhikari (2021).** Nickel-Catalyzed Selective Synthesis of α -Alkylated Ketones via Dehydrogenative Cross-Coupling of Primary and Secondary Alcohols. *Advanced Synthesis & Catalysis*, 364(1), 47–52. <https://doi.org/10.1002/adsc.202101077>
10. **Amreen K. Bains, Abhishek Kundu, Debabrata Maiti and Debashis Adhikari (2021).** Ligand-redox assisted nickel catalysis toward stereoselective synthesis of (n+1)-membered cycloalkanes from 1,n-diols with methyl ketones. *Chemical Science*, 12(42), 14217–14223. <https://doi.org/10.1039/d1sc04261k>
11. **Amreen K. Bains, Yadav Ankit and Debashis Adhikari (2021).** Pyrenedione-Catalyzed α -Olefination of Nitriles under Visible-Light Photoredox Conditions. *Organic Letters*, 23(6), 2019–2023. <https://doi.org/10.1021/acs.orglett.1c00162>

12. Anamika Kumari, **Joydip De**, Sushanta Dattagupta, Hirendra N. Ghosh, **Santanu Kumar Pal** and S. Chakraverty (2021). Probing conducting interfaces by combined photoluminescence and transport measurements: LaVO₃ and SrTiO₃ interface as a case study. *Physical Review B*, 104(8). <https://doi.org/10.1103/physrevb.104.1081111>
13. **Anshu Singh**, **Ankur Maji**, **Mayank Joshi**, **Angshuman R. Choudhury** and **Kaushik Ghosh** (2021). Designed pincer ligands supported Co(II)-based catalysts for dehydrogenative activation of alcohols: Studies on N-alkylation of amines, -alkylation of ketones and synthesis of quinolines. *Dalton Transactions*. **50**, 8567-8587. <https://doi.org/10.1039/d0dt03748f>
14. Arumugam Kalaiselvan, **Shaina Dhamija**, Chakrapani Aswathi, **Arijit K. De** and Sabapathi Gokulnath (2021). Planar hexaphyrin-like macrocycles turning into bis-BODIPYs with box-shaped structures exhibiting excitonic coupling. *Chemical Communications*, 57(87), 11485–11488. <https://doi.org/10.1039/d1cc04403f>
15. **Arup Dalal** and **Srinivasarao Arulananda Babu** (2021). Pd(II)-Catalyzed Directing-Group-Aided C–H Arylation and Alkylation of Pyrene Core: Synthesis of C1,C2- and C1,C10-Disubstituted Pyrene Motifs. *Synthesis*, 53(18), 3307–3324. <https://doi.org/10.1055/a-1472-0881>
16. **Ashitha P. P**, **Mayank Joshi**, **Deepraj Verma**, **Sachin Jadhav**, **Angshuman Roy Choudhury** and **Debrina Jana** (2021). Layered Cs₄CuSb₂Cl₁₂ Nanocrystals for Sunlight-Driven Photocatalytic Degradation of Pollutants. *ACS Applied Nano Materials*, 4(2), 1305–1313. <https://doi.org/10.1021/acsnm.0c02879>
17. **Atanu Mondal**, **Bishnupada Satpathi** and **S. S. V. Ramasastry** (2021). Phosphine-Catalyzed Intramolecular Vinylogous Aldol Reaction of α -Substituted Enones. *Organic Letters*, 24(1), 256–261. <https://doi.org/10.1021/acs.orglett.1c03913>
18. **Atanu Mondal**, **Shivangi**, **Pinku Tung**, **Siddhant V. Waguldea** and **S. S. V. Ramasastry** (2021). Annulative Morita–Baylis–Hillman reaction to synthesise chiral dibenzocycloheptanes. *Chemical Communications*, 57(73), 9260–9263. <https://doi.org/10.1039/d1cc02765d>
19. Brij Mohan, **Virender Sandeep Kumar**, Krunal Modi, Harish Kumar Sharma and Ashwani Kumar (2021). 5-Bromo-1H-indol based flexible molecular receptor possessing spectroscopic characteristics for detection of Sm(III) and Dy(III) ions. *Inorganica Chimica Acta*, 519, 120275. <https://doi.org/10.1016/j.ica.2021.120275>
20. **Debapriya Das**, **Lishaa Arora** and **Samrat Mukhopadhyay** (2021). Fluorescence Depolarization Kinetics Captures Short-Range Backbone Dihedral Rotations and Long-Range Correlated Dynamics of an Intrinsically Disordered Protein. *The Journal of Physical Chemistry B*, 125(34), 9708–9718. <https://doi.org/10.1021/acs.jpccb.1c04426>
21. **Debapriya Gupta**, **Ankit Kumar Gaur**, **Pravesh Kumar**, **Himanshu Kumar**, **Anjali Mahadevan**, **Sudha Devi**, **Saonli Roy** and **Sugumar Venkataramani** (2021). Tuning of Bistability, Thermal Stability of the Metastable States, and Application Prospects in the C₃-Symmetric Designs of Multiple Azo(hetero)arenes Systems. *Chemistry – a European Journal*, 27(10), 3463–3472. <https://doi.org/10.1002/chem.202004620>
22. Debarati Bhattacharya, **K. R. Shamasundar** and Agapi Emmanouilidou (2021). Potential Energy Curves of Molecular Nitrogen for Singly and Doubly Ionized States with Core and Valence Holes. *The Journal of Physical Chemistry A*, 125(36), 7778–7787. <https://doi.org/10.1021/acs.jpca.1c04613>
23. Dipika Narula, Shamsher S. Bari, Pooja Yadav, Sadhika Khullar, **Sanjay K. Mandal**, Gurpreet Kaur, Ganga Ram Chaudhary and Aman Bhalla (2021). Synthesis of α -Heterocycle Anchored Spirocyclic Azetidines in a Minute by *p*-TSA Catalyzed

- Cyclocondensation of Azetidin-2,3-diones with Difunctionalized Substrates. *ChemistrySelect*, 6(16), 3932–3940. <https://doi.org/10.1002/slct.202101104>
24. Ekta Shandilya, Basundhara Dasgupta and Dr. Subhabrata Maiti (2021). Interconnectivity between Surface Reactivity and Self-Assembly of Kemp Elimination Catalyzing Nanorods. *Chemistry – a European Journal*, 27(29), 7831–7836. <https://doi.org/10.1002/chem.202100450>
 25. F. A. Gianturco, K. Giri, L. González-Sánchez, E. Yurtsever, Narayanasami Sathyamurthy and R. Wester (2021). Efficiency of rovibrational cooling of HeH⁺ by collisions with He: Cross sections and rate coefficients from quantum dynamics. *The Journal of Chemical Physics*, 155(15), 154301. <https://doi.org/10.1063/5.0062147>
 26. Franco Gianturco, Kousik Giri, Lola Gonzalez-Sanchez, Ersin Yurtsever, Narayanasami Sathyamurthy and Roland Wester (2021). Energy-transfer quantum dynamics of HeH⁺ with He atoms: Rotationally inelastic cross sections and rate coefficients. *The Journal of Chemical Physics*, 154(5), 054311. <https://doi.org/10.1063/5.0040018>
 27. Gaurav Chasta, Himanshu, Shankar Lal Patel, S.Chander, M. D. Kannan and M. S. Dhaka (2021). Analysis of different vacuum annealing levels for ZnSe thin films as potential buffer layer for solar cells. *Journal of Materials Science: Materials in Electronics*, 33(1), 139–157. <https://doi.org/10.1007/s10854-021-07280-9>
 28. Gouri Chakraborty, Prasenjit Das and Sanjay K. Mandal (2021). Efficient and Highly Selective CO₂ Capture, Separation, and Chemical Conversion under Ambient Conditions by a Polar-Group-Appended Copper(II) Metal–Organic Framework. *Inorganic Chemistry*, 60(7), 5071–5080. <https://doi.org/10.1021/acs.inorgchem.1c00101>
 29. Gouri Chakraborty, Prasenjit Das and Sanjay K. Mandal (2021). Quinoline-tagged fluorescent organic probes for sensing of nitro-phenolic compounds and Zn²⁺ ions at the ppb level. *Materials Advances*, 2(7), 2334–2346. <https://doi.org/10.1039/d1ma00025j>
 30. Gurdeep Singh, Rajat Pandey, Yogesh A. Pankhade, Shaheen Fatma and Ramasamy Vijaya Anand (2021). Construction of Oxygen- and Nitrogen-based Heterocycles from *p*-Quinone Methides. *The Chemical Record*, 21(12), 4150–4173. <https://doi.org/10.1002/tcr.202100137>
 31. Gurdeep Singh, Rajat Pandey, Adarsh S. Kurup and Ramasamy Vijaya Anand (2021). A Base-Mediated Approach Towards Dihydrofuro[2,3-*b*]Benzofurans from 2-Nitro Benzofurans and 1,3-Dicarbonyls. *Chemistry – an Asian Journal*, 16(10), 1271–1279. <https://doi.org/10.1002/asia.202100184>
 32. Indu Bala, Joydip De, Santosh Prasad Gupta, Upendra Kumar Pandey and Santanu Kumar Pal (2021). Enabling efficient ambipolar charge carrier mobility in a H-bonded heptazine–triphenylene system forming segregated donor–acceptor columnar assemblies. *Journal of Materials Chemistry C*, 9(27), 8552–8561. <https://doi.org/10.1039/d1tc01898a>
 33. Ipsita Pani, Fidha Nazreen K. M., Monika Sharma and Santanu Kumar Pal (2021). Probing Nanoscale Lipid–Protein Interactions at the Interface of Liquid Crystal Droplets. *Nano Letters*, 21(11), 4546–4553. <https://doi.org/10.1021/acs.nanolett.0c05139>
 34. Joydip De, Ishan Sarkar, Rohit Ashok Kumar Yadav, Indu Bala, Santosh Prasad Gupta, Iram Siddiqui, Jwo-Huei Jou and Santanu Kumar Pal (2021). Luminescent columnar discotics as highly efficient emitters in pure deep-blue OLEDs with an external quantum efficiency of 4.7%. *Soft Matter*, 18(4), 4214–4219. <https://doi.org/10.1039/D1SM01558C>

35. **Joydip De**, Rohit Ashok Kumar Yadav, **Rahul Singh Yadav**, Santosh Prasad Gupta, **Mayank Joshi**, **Angshuman Roy Choudhury**, Jayachandran Jayakumar, Jwo-Huei Jou, Chien-Hong Cheng and **Santanu Kumar Pal (2021)**. Molecular Engineering for the Development of a Discotic Nematic Mesophase and Solid-State Emitter in Deep-Blue OLEDs. *The Journal of Organic Chemistry*, 86(10), 7256–7262. <https://doi.org/10.1021/acs.joc.1c00742>
36. **Kavita Rani**, **Upendra K. Pandey** and **Sanchita Sengupta (2021)**. Efficient electron transporting and panchromatic absorbing FRET cassettes based on aza-BODIPY and perylenediimide towards multiple metal FRET-Off sensing and ratiometric temperature sensing. *Journal of Materials Chemistry C*, 9(13), 4607–4618. <https://doi.org/10.1039/d1tc00068c>
37. **Kavita Rania** and **Sanchita Sengupta (2021)**. Multi-stimuli programmable FRET based RGB absorbing antennae towards ratiometric temperature, pH and multiple metal ion sensing. *Chemical Science*, 12(47), 15533–15542. <https://doi.org/10.1039/d1sc05112a>
38. **Ketan Kumar**, **Prashant Kumar**, **Bara Singh**, **Sonu Yadav**, **Uttam K. Mishra**, **Arshad J. Ansari** and **S.S.V. Ramasastry (2021)**. Hypothesis-Driven Palladium-Catalyzed Transformations for the Construction of New Molecular Architectures. *The Chemical Record*, 21(12), 3470–3482. <https://doi.org/10.1002/tcr.202100095>
39. **Ketan Kumar**, **T. Vivekanand**, **Bara Singh** and **S. S. V. Ramasastry (2021)**. C(sp³)–H Activation Enabled by (η³-Indolylmethyl)palladium Complexes: Synthesis of Monosubstituted Tetrahydrocarbazoles. *Synthesis*, 54(04), 943–952. <https://doi.org/10.1055/a-1516-7960>
40. **Kirti Singh**, **Iram Siddiqui**, **Vidhyalakshmi Sridharan**, **Rohit Ashok Kumar Yadav**, **Jwo-Huei Jou** and **Debashis Adhikari (2021)**. Aggregation-Induced Enhanced Emission-Active Zinc(II) β-Diketiminato Complexes Enabling High-Performance Solution-Processable OLEDs. *Inorganic Chemistry*, 60(24), 19128–19135. <https://doi.org/10.1021/acs.inorgchem.1c02926>
41. **Kirti Singh**, **Vidhyalakshmi S.** and **Debashis Adhikari (2021)**. Visible light photoredox by a (ph^{Ar}NacNac)₂Zn photocatalyst: photophysical properties and mechanistic understanding. *Inorganic Chemistry Frontiers*, 8(8), 2078–2087. <https://doi.org/10.1039/d0qi01466d>
42. **Koushik Sarkar**, **Kuhali Das**, **Abhishek Kundu**, **Debashis Adhikari** and **Biplab Maji (2021)**. Phosphine-Free Manganese Catalyst Enables Selective Transfer Hydrogenation of Nitriles to Primary and Secondary Amines Using Ammonia–Borane. *ACS Catalysis*, 11(5), 2786–2794. <https://doi.org/10.1021/acscatal.0c05406>
43. **Kousik Giri**, **Brijesh K. Mishra** and **Narayanasami Sathyamurthy (2021)**. Disruptive influence of the host cage C₆₀ on the guest He–H⁺ bond and bonding in H₃⁺. *Journal of the Indian Chemical Society*, 98(8), 100101. <https://doi.org/10.1016/j.jics.2021.100101>
44. **Lipipuspa Sahoo**, **Parmeet Kaur Dhindsa**, **Nihal C. P** and **Ujjal K. Gautam (2021)**. “Pre-optimization” of the solvent of nanoparticle synthesis for superior catalytic efficiency: a case study with Pd nanocrystals. *Nanoscale Advances*, 3(8), 2366–2376. <https://doi.org/10.1039/d0na01006e>
45. **Lipipuspa Sahoo**, **Sanjit Mondal**, **A. Gloskovskii**, **Arunabhram Chutia** and **Ujjal K. Gautam (2021)**. Unravelling charge-transfer in Pd to pyrrolic-N bond for superior electrocatalytic performance. *Journal of Materials Chemistry A*, 9(17), 10966–10978. <https://doi.org/10.1039/d0ta12618g>
46. **Lipipuspa Sahoo**, **Sanjit Mondal**, **C.B. Nayana** and **Ujjal K. Gautam (2021)**. Facile d-band tailoring in Sub-10 nm Pd cubes by in-situ grafting on nitrogen-doped

- graphene for highly efficient organic transformations. *Journal of Colloid and Interface Science*, 590, 175–185. <https://doi.org/10.1016/j.jcis.2020.12.118>
47. **Lipipuspa Sahoo, Sanjit Mondal, Nayana Christudas Beena, A. Gloskovskii, Unnikrishnan Manju, D. Topwal and Ujjal K. Gautam (2021)**. 3D Porous Polymeric-Foam-Supported Pd Nanocrystal as a Highly Efficient and Recyclable Catalyst for Organic Transformations. *ACS Applied Materials & Interfaces*, 13(8), 10120–10130. <https://doi.org/10.1021/acsami.1c00497>
 48. **Lipipuspa Sahoo, Sanjit Mondal, Reeya Garg, Unnikrishnan Manju, D. Topwal, and Ujjal K. Gautam (2021)**. Prospects in Engineering Congested Molecular Diffusion at the Stabilizer Layer of Metal Nanocrystals for Ultrahigh Catalytic Activity. *The Journal of Physical Chemistry C*, 125(18), 9827–9838. <https://doi.org/10.1021/acs.jpcc.1c02313>
 49. **Lona Dutta, Atanu Mondal and S. S. V. Ramasastry (2021)**. Metal-Free Reductive Aldol Reactions. *Asian Journal of Organic Chemistry*, 10(4), 680–691. <https://doi.org/10.1002/ajoc.202000693>
 50. **Manisha Devi, Indu Verma and Santanu Kumar Pal (2021)**. Distinct interfacial ordering of liquid crystals observed by protein–lipid interactions that enabled the label-free sensing of cytoplasmic protein at the liquid crystal-aqueous interface. *The Analyst*, 146(23), 7152–7159. <https://doi.org/10.1039/d1an01444g>
 51. **Mayank Joshi, Indu Verma, Aakanksha Gulati, Susmita Rani, Chesta Budhwar, Kaisar Raza, Arunika Mukhopadhyaya and Angshuman Roy Choudhury (2021)**. New salts of levofloxacin with physiochemical, structural and biological insights. *Acta Crystallographica Section a Foundations and Advances*, 77(a2), C877–C877. <https://doi.org/10.1107/s0108767321088218>
 52. **Mrinal Kanti Adak and Ajit Das (2021)**. Algal Nanotechnology for Wastewater Treatment. *Nanotechnology in the Life Sciences*, 365–382. https://doi.org/10.1007/978-3-030-81557-8_15
 53. **Narayanasami Sathyamurthy (2021)**. Atoms and molecules confined inside C60. *Proceedings of the Indian National Science Academy*, 87(2), 311–319. <https://doi.org/10.1007/s43538-021-00003-y>
 54. **Narayanasami Sathyamurthy and Susanta Mahapatra (2021)**. Time-dependent quantum mechanical wave packet dynamics. *Physical Chemistry Chemical Physics*, 23(13), 7586–7614. <https://doi.org/10.1039/d0cp03929b>
 55. **Naveen Kumar Tailor, Samita Mishra, Tejasvini Sharma, Arijit Kumar De and Soumitra Satapathi (2021)**. Cation-Dependent Hot Carrier Cooling in the Lead-Free Bismuth Halide $A_3Bi_2I_9$ ($A = FA, MA, \text{ and } Cs$) Perovskite. *The Journal of Physical Chemistry C*, 125(18), 9891–9898. <https://doi.org/10.1021/acs.jpcc.1c01509>
 56. **Navnita Kumar and Sanjay K. Mandal (2021)**. l-Tyrosine derived fluorescent molecular probes as solvent mediated flip-flop halide (iodide/fluoride) sensors and reversible chromogenic pH indicators. *Materials Advances*, 2(3), 942–947. <https://doi.org/10.1039/d0ma00589d>
 57. **Neha Rani Kumar, Prasenjit Das, Abhijeet R. Agrawal, Sanjay K. Mandal and Sanjio S. Zade (2021)**. Thienyltriazine based conjugated porous organic polymers: tuning of the porosity and band gap, and CO_2 capture. *Materials Advances*, 2(22), 7473–7481. <https://doi.org/10.1039/d1ma00621e>
 58. **Nilaj Bandopadhyay, Mayank Joshi, Stevan Armaković, Sanja J. Armaković, Hari Sankar Das, Angshuman Roy Choudhury and Bhaskar Biswas (2021)**. Unprecedented copper(ii) coordination induced nucleophilic cleavage of a quinoxaline heterocycle: structural and computational studies. *CrystEngComm*, 23(29), 5078–5086. <https://doi.org/10.1039/d1ce00569c>

59. Nipun P. Thekkeppat, **Labhini Singla**, Srinu Tothadi, Priyadip Das, **Angshuman Roy Choudhury** and Soumyajit Ghosh (2021). Structure-property correlation of halogen substituted benzothiazole crystals. *Journal of Molecular Structure*, 1243, 130765. <https://doi.org/10.1016/j.molstruc.2021.130765>
60. **Nisha Arora**, **Jagadish Prasad Hazra** and **Sabyasachi Rakshit** (2021). Anisotropy in mechanical unfolding of protein upon partner-assisted pulling and handle-assisted pulling. *Communications Biology*, 4(1). <https://doi.org/10.1038/s42003-021-02445-y>
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62. P. C. Ashly, Shreya Sarkar, Saurav Ch. Sarma, **Ujjal K Gautam**, **Komalpreet Kaur** and Sebastian C. Peter (2021). Compressive strain induced by multiple phase distribution and atomic ordering in PdCu nanoparticles to enhanced ethanol oxidation reaction performance. *Journal of Power Sources*, 506, 230168. <https://doi.org/10.1016/j.jpowsour.2021.230168>
63. **Pavit K. Ranga**, **Feroz Ahmad**, **Gurdeep Singh**, **Akshi Tyagi** and **Ramasamy Vijaya Anand** (2021). Recent advances in the organocatalytic applications of cyclopropene- and cyclopropenium-based small molecules. *Organic & Biomolecular Chemistry*, 19(44), 9541–9564. <https://doi.org/10.1039/d1ob01549d>
64. **Pavit Kumar Ranga**, **Feroz Ahmad**, **Prashant Nager**, **Prabhat Singh Rana** and **Ramasamy Vijaya Anand** (2021). Bis(amino)cyclopropenium Ion as a Hydrogen-Bond Donor Catalyst for 1,6-Conjugate Addition Reactions. *The Journal of Organic Chemistry*, 86(7), 4994–5010. <https://doi.org/10.1021/acs.joc.0c02940>
65. Pidiyara Karishma, Chikkagundagal K. Mahesha, **Sanjay K. Mandal** and Rajeev Sakhuja (2021). Reducing-Agent-Free Convergent Synthesis of Hydroxyimino-Decorated Tetracyclic Fused Cinnolines via Rh^{III}-Catalyzed Annulation Using Nitroolefins. *The Journal of Organic Chemistry*, 86(3), 2734–2747. <https://doi.org/10.1021/acs.joc.0c02729>
66. Pidiyara Karishma, **Sanjay K. Mandal** and Rajeev Sakhuja (2021). Rhodium-Catalyzed Spirocyclization of Maleimide with *N*-Aryl-2,3-dihydrophthalazine-1,4-dione to Access Pentacyclic Spiro-Succinimides. *Asian Journal of Organic Chemistry*, 10(10), 2580–2590. <https://doi.org/10.1002/ajoc.202100384>
67. **Pooja Bhatt**, **Jhuma Dutta** and **Jino George** (2021). Electromagnetic Field Dependence of Strong Coupling in WS₂ Monolayers. *Physica Status Solidi (RRL) – Rapid Research Letters*, 15(4), 2000580. <https://doi.org/10.1002/pssr.202000580>
68. **Pooja Bhatt**, **Kuljeet Kaur**, and **Jino George** (2021). Enhanced Charge Transport in Two-Dimensional Materials through Light–Matter Strong Coupling. *ACS Nano*, 15(8), 13616–13622. <https://doi.org/10.1021/acsnano.1c04544>
69. Prafulla Kumar Mudi, Rajani Kanta Mahato, **Mayank Joshi**, Madhusudan Shit, **Angshuman Roy Choudhury**, Hari Sankar Das and Bhaskar Biswas (2021). Copper(II) complexes with a benzimidazole functionalized Schiff base: Synthesis, crystal structures, and role of ancillary ions in phenoxazinone synthase activity. *Applied Organometallic Chemistry*, 35(6). <https://doi.org/10.1002/aoc.6211>
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- Diacetates: Synthesis of Chromene-Based Natural Products and Exploration of Photochromic Properties. *ACS Catalysis*, 12(2), 963–970. <https://doi.org/10.1021/acscatal.1c05450>
72. **Prashant Kumar, Rajendra P. Shirke, Sonu Yadav and S.S.V. Ramasastry (2021)**. Catalytic Enantioselective Synthesis of Axially Chiral Diarylmethylidene Indanones. *Organic Letters*, 23(12), 4909–4914. <https://doi.org/10.1021/acs.orglett.1c01671>
73. Prashant V. Kamat, Gerald J. Meyer, Hongwei Wu, **Krishna N. Ganesh**, Deqing Zhang, and Dinesh C. Soares (2021). Energy Research at ACS in the Age of Open Access. *ACS Omega*, 6(12), 7967–7969. <https://doi.org/10.1021/acsomega.1c01222>
74. **Priyanka Madhu and Samrat Mukhopadhyay (2021)**. Distinct types of amyloid- β oligomers displaying diverse neurotoxicity mechanisms in Alzheimer's disease. *Journal of Cellular Biochemistry*, 122(11), 1594–1608. <https://doi.org/10.1002/jcb.30141>
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