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**Monthly Bulletin of Publications:
Faculty, Scientists and Students of IISER Pune.
JULY 2023**

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BIOLOGY

Journal Articles

Author(s) AREEKAL, SANDRA ARAVIND; Khadilkar, Anuradha; GOEL, PRANAY; Cole, Tim J.
Title Longitudinal Height Growth in Children and Adolescents with Type-1 Diabetes Mellitus Compared to Controls in Pune, India
Citation Pediatric Diabetes, 2023.
Publisher [Hindawi](#)
URI <https://doi.org/10.1155/2023/8813031>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8094>
Date of Publication 2023-07

Author(s) KALE,TANVI; KHATRI, DHRUV; ATHALE, CHAITANYA A.
Title Allometry of Escherichia coli surface area with volume: effect of size variability, filamentation and division dynamics
Citation Physical Biology, 20(4), 046007.
Publisher IOP Publishing
URI <https://doi.org/10.1088/1478-3975/acdcda>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8100>
Date of Publication 2023-07

Author(s) KHAN, SOUMEN; PRADHAN, SAURABH J.; Giraud, Guillaume; Bleicher, Françoise Paul, Rachel; Merabet, Samir; SHASHIDHARA, L. S.
Title A Micro-evolutionary Change in Target Binding Sites as a Key Determinant of Ultrabithorax Function in Drosophila
Citation Journal of Molecular Evolution.
Publisher Springer Nature
URI <https://doi.org/10.1007/s00239-023-10123-2>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8096>
Date of Publication 2023-06

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CHEMISTRY

Journal Articles

Author(s) CHAKRABORTY, INDRA NARAYAN; ROY, PRADYUT; PILLAI, PRAMOD P
Title Visible Light-Mediated Quantum Dot Photocatalysis Enables Olefination Reactions at Room Temperature
Citation ACS Catalysis, 13(11), 7331-7338.
Publisher American Chemical Society
URI <https://doi.org/10.1021/acscatal.2c04742>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8088>
Date of Publication 2023-06

Author(s) GHOSH, MOUSHAKHI; KHAN, SHABANA
Title N-Heterocyclic Carbenes Capped Metal Nanoparticles: An Overview of Their Catalytic Scope
Citation ACS Catalysis, 13(14), 9313-9325.
Publisher American Chemical Society
URI <https://doi.org/10.1021/acscatal.3c01824>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8097>
Date of Publication 2023-07

Author(s) KHADE, VIKAS V.; BHOWMICK, ANINDITA; THUBE, ARCHANA S.; BHAT, RAMAKRISHNA G.
Title Direct Access to Strained Fused Dihalo-Aziridino Quinoxalinones via C3-Alkylation Followed by Tandem Cyclization
Citation Journal of Organic Chemistry, 88(13), 8010-8023.
Publisher American Chemical Society
URI <https://doi.org/10.1021/acs.joc.3c00033>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8084>
Date of Publication 2023-07

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Author(s) KHUDDUS, MOHAMMED; JAYAKANNAN, MANICKAM
Title Melt Polycondensation Strategy for Amide-Functionalized L-Aspartic Acid Amphiphilic Polyester Nano-assemblies and Enzyme-Responsive Drug Delivery in Cancer Cells
Citation Biomacromolecules, 24(6), 2643- 2660.
Publisher American Chemical Society
URI <https://doi.org/10.1021/acs.biomac.3c00127>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8077>
Date of Publication 2023-06

Author(s) KUMAR, DRGKOPPALU PUNEETH R.; BHAT, ZAHID MANZOOR; DEY, SANJIT; ROY, SOUVIK; MAHAPATRA, SOUVIK PANDA; PAHAN, SAIKAT; THOTIYL, MUSTHAFA OTTAKAM; GOPI, HOSAHUDYA N.
Title Foldamer Nanotubes Mediated Label-Free Detection of Protein-Small Molecule Interactions
Citation Chemistry—A European Journal, 29(42).
Publisher Wiley
URI <https://doi.org/10.1002/chem.202300479>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8074>
Date of Publication 2023-07

Author(s) MONDAL, RITWIK; THIMMAPPA, RAVIKUMAR; NAYAK, BHOJKUMAR; DEWAN, ANWESHI; DEVENDRACHARI, MRUTHUNJAYACHARI CHATTANAHALLI; Chen, Qing-Song; Wen, Zhenhai; THOTIYL, MUSTHAFA OTTAKAM
Title A Spontaneous Hydrogen Fuel Purifier under Truly Ambient Weather Conditions
Citation Energy & Environmental Science
Publisher Royal Society of Chemistry
URI <https://doi.org/10.1039/D3EE02095A>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8079>
Date of Publication 2023-07

Author(s) PRASAD, KAMESHWAR; SHARMA, ANANAY; Pati, Soumyaranjan; Taillefer, Marc; Jaroschik, Florian; HOTH, SRINIVAS
Title Metal Free Activation of Alkynyl Glycosyl Carbonate Donors
Citation Advanced Synthesis & Catalysis, 365(14), 2344-2349.
Publisher Wiley
URI <https://doi.org/10.1002/adsc.202300251>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8080>
Date of Publication 2023-07

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Author(s) ROY, SUMIT; KASHYAP, RADHA KRISHNA; PILLAI, PRAMOD P.
Title Thermoplasmonics Enable the Coupling of Light into the Solvent-Mediated Self-Assembly of Gold Nanoparticles
Citation Journal of Physical Chemistry C, 127(21), 10355-10365.
Publisher American Chemical Society
URI <https://doi.org/10.1021/acs.jpcc.3c01316>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8086>
Date of Publication 2023-06

Author(s) SAHOO, SUPRIYA; Kothavade, Premkumar Anil; Naphade, Dipti R.; Torris, Arun; Praveenkumar, Balu; Zareba, Jan K.; Anthopoulos, Thomas D.; Shanmuganathan, Kadhiraavan; BOOMISHANKAR, RAMAMOORTHY
Title 3D-printed polymer composite devices based on a ferroelectric chiral ammonium salt for high-performance piezoelectric energy harvesting
Citation Materials Horizons, 10(8), 3153-3161
Publisher Royal Society of Chemistry
URI <https://doi.org/10.1039/D3MH00444A>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8082>
Date of Publication 2023-08

Author(s) SAIKIA, SAJID; GHOSH, ANIMESH; NAG, ANGSHUMAN
Title Broad Dual Emission by Codoping Cr³⁺ (d → d) and Bi³⁺ (s → p) in Cs₂Ag_{0.6}Na_{0.4}InCl₆ Double Perovskite
Citation Angewandte Chemie International Edition.
Publisher Wiley
URI <https://doi.org/10.1002/anie.202307689>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8099>
Date of Publication 2023-06

Author(s) SINDHU, POOJA; BALLAV, NIRMALYA
Title Thin Films of MOF-on-Guest@MOF: A Simple Strategy of Designing Electronic Heterostructures
Citation Inorganic Chemistry, 62(28), 10887-10891.
Publisher American Chemical Society
URI <https://doi.org/10.1021/acs.inorgchem.3c01489>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8078>
Date of Publication 2023-07

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EARTH AND CLIMATE SCIENCE

Journal Article

Author(s) Justine, Jenix; MONTEIRO, JOY MERWIN; SHAH, HARDIK; Rao, Neethi

Title The diurnal variation of wet bulb temperatures and exceedance of physiological thresholds relevant to human health in South Asia

Citation Communications Earth & Environment, 4, 244.

Publisher Springer Nature

URI <https://doi.org/10.1038/s43247-023-00897-0>

DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8098>

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HUMANITIES AND SOCIAL SCIENCES

Journal Article

Author(s) LELE, SHARACHCHANDRA

Title Value articulation in environmental appraisal: which values, whose values, and how valued?

Citation Current Opinion in Environmental Sustainability, 63, 101294.

Publisher Elsevier B.V.

URI <https://doi.org/10.1016/j.cosust.2023.101294>

DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8087>

Date of Publication 2023-08

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MATHEMATICS

Book

Author(s) Murty, M. Ram; SINHA, KANEENIKA
Title An Introduction to the Circle Method
Publisher American Mathematical Society
URI <https://bookstore.ams.org/view?ProductCode=STML/104#>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8105>
Date of Publication 2023

Journal Articles

Author(s) BISWAS, ANUP; Borkar, Vivek S.
Title Ergodic risk-sensitive control-A survey
Citation Annual Reviews in Control, 55, 118-141.
Publisher Elsevier B.V.
URI <https://doi.org/10.1016/j.arcontrol.2023.03.001>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8090>
Date of Publication 2023

Author(s) Dasgupta, Jyoti; KHAN, BIVAS; Biswas, Indranil; Dey, Arijit; PODDAR, MAINAK
Title Classification, Reduction, and Stability of Toric Principal Bundles
Citation Transformation Groups.
Publisher Springer Nature
URI <https://doi.org/10.1007/s00031-023-09812-5>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8104>
Date of Publication 2023-07

Author(s) Harris, Robert; Joshi, Amey; Park, B. Doug; PODDAR, MAINAK
Title Abelian branched covers of rational surfaces
Citation Advances in Geometry.
Publisher Walter de Gruyter
URI <https://doi.org/10.1515/advgeom-2023-0012>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8103>
Date of Publication 2023-07

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Author(s) PODDAR, MAINAK; Singh, Anoop
Title Relative connections on principal bundles and relative equivariant structures
Citation Differential Geometry and its Applications, 90, 102041.
Publisher Elsevier B.V.
URI <https://doi.org/10.1016/j.difgeo.2023.102041>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8102>
Date of Publication 2023-10

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PHYSICS

Journal Articles

Author(s) Ghosh, Joydip; PARVEEN, SUMAIYA; Sellin, P. J.; Giri, P. K.
Title Recent Advances and Opportunities in Low-Dimensional Layered Perovskites for Emergent Applications beyond Photovoltaics
Citation Advanced Materials Technologies.
Publisher Wiley
URI <https://doi.org/10.1002/admt.202300400>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8089>
Date of Publication 2023-06

Author(s) Gurjar, Ganesh; Sharma, Vinay; DE, AVIRUP; NAIR, SUNIL; Patnaik, S.; Kuanr, Bijoy K.
Title Crystal orientation dependent spin pumping in a $\text{Bi}_{0.1}\text{Y}_{2.9}\text{Fe}_5\text{O}_{12}/\text{Pt}$ interface
Citation Journal of Physics D: Applied Physics, 56(38).
Publisher IOP Publishing
URI <https://doi.org/10.1088/1361-6463/acdbd7>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8083>
Date of Publication 2023-09

Author(s) KAPOOR, AAKANKSHA; PATRIKE, APURVA L.; SINGH, NITESH; Thauer, Elisa; Ottmann, Alexander; Klingeler, Rüdiger; OGALE, SATISHCHANDRA; BAJPAI, ASHNA
Title Synthetically encapsulated & self-organized transition metal oxide nano-structures inside carbon nanotubes as robust: Li-ion battery anode materials
Citation Journal of Physics D: Applied Physics, 56(42), 425504.
Publisher IOP Publishing
URI <https://doi.org/10.1088/1361-6463/ace3d7>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8101>
Date of Publication 2023-10

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Author(s) SAHA, MADHUMITA; AGARWALLA, BIJAY KUMAR; Kulkarni, Manas; Purkayastha, Archak
Title Universal Subdiffusive Behavior at Band Edges from Transfer Matrix Exceptional Points
Citation Physical Review Letters, 130(18), 187101.
Publisher American Physical Society
URI <https://doi.org/10.1103/PhysRevLett.130.187101>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8091>
Date of Publication 2023-05

Author(s) Sahoo, Aditi; Paul, Tufan; NATH, ANKAN; Maiti, Soumen; Kumar, Prabhat; GHOSH, PRASENJIT; Banerjee, Rupak
Title Preferential perovskite surface-termination induced high piezoresponse in lead-free in situ fabricated $Cs_3Bi_2Br_9$ -PVDF nanocomposites promotes biomechanical energy harvesting
Citation Nanoscale, 15(27), 11603-11615.
Publisher Royal Society of Chemistry
URI <https://doi.org/10.1039/D3NR01517C>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8076>
Date of Publication 2023-07

Author(s) SREERAM, P. G.; Modak, Ranjan; Aravinda, S.
Title Witnessing quantum chaos using observational entropy
Citation Physical Review E, 107(06), 064204.
Publisher American Physical Society
URI <https://doi.org/10.1103/PhysRevE.107.064204>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8075>
Date of Publication 2023-06

Author(s) Wittmann, Martin; Henze, Kelly; Yan, Kai; SHARMA, VANDANA; Simmchen, Juliane
Title Rod-shaped microparticles - an overview of synthesis and properties
Citation Colloid and Polymer Science.
Publisher Springer Nature
URI <https://doi.org/10.1007/s00396-023-05111-3>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8095>
Date of Publication 2023-06

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Popular Article

Author(s) DATTA, SHOUVIK
Title Tailoring quantum oscillations of a Bose-Einstein condensate of excitons as qubits
Citation Science X
Publisher Phys.org
URI <https://phys.org/news/2023-07-tailoring-quantum-oscillations-bose-einstein-condensate.html>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/8092>
Date of Publication 2023-07

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