



**SRINIVASA RAMANUJAN LIBRARY**  
Indian Institute of Science Education and Research Pune  
Dr. Homi Bhabha Road, Pune - 411008. India.  
e-mail: libraryservices@iiserpune.ac.in

**Monthly Bulletin of Publications:  
Faculty, Scientists and Students of IISER Pune.  
DECEMBER 2022**

**Contents**

| <b>Department</b>                                     | <b>Page No.</b> |
|---|-----------------|
| <a href="#"><u>Biology</u></a>                        | 2               |
| <a href="#"><u>Chemistry</u></a>                      | 4               |
| <a href="#"><u>Earth and Climate Science</u></a>      | 7               |
| <a href="#"><u>Humanities and Social Sciences</u></a> | 8               |
| <a href="#"><u>Mathematics</u></a>                    | 9               |
| <a href="#"><u>Physics</u></a>                        | 10              |

# BIOLOGY

## Journal Articles

**Author(s)** Choudhary, Amit G.; Awathale, Sanjay N.; SUBHEDAR, NISHIKANT K.; Kokare, Dadasaheb M.

**Title** In-house fabrication of bipolar electrode-cannula assembly for electrical stimulation and drug delivery at the same site in rat brain

**Citation** Journal of Pharmacological and Toxicological Methods, 118, 107194.

**Publisher** Elsevier B.V.

**URI** <https://doi.org/10.1016/j.vascn.2022.107194>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7517>

**Date of Publication** 2022-12

**Author(s)** Higgins, Kendall; GALANDE, SANJEEV et al.

**Title** Analysis of genome-wide knockout mouse database identifies candidate ciliopathy genes

**Citation** Scientific Reports, 12, 20791.

**Publisher** Springer Nature

**URI** <https://doi.org/10.1038/s41598-022-19710-7>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7510>

**Date of Publication** 2022-12

**Author(s)** KUTTANAMKUZHI, ABHIJITH; ANANDI, LIBI; CHAKRAVARTY, VAISHALI; LAHIRI, MAYURIKA

**Title** Phospholipid Mediator Induced Transformation in Three-Dimensional Cultures

**Citation** Journal of Visualized Experiments: Cancer Research.

**Publisher** MyJoVE Corporation

**URI** <https://doi.org/10.3791/64146>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7430>

**Date of Publication** 2022-07

[Go to top](#)

**Author(s)** KUNDU, TANUSHREE; DAS, SOORAJ SIVA; SEWATKAR, LISAS K.; KUMAR, DIVYA S.; NAGAR, DHRITI; GHOSE, AURNAB  
**Title** Antagonistic Activities of Fmn2 and ADF Regulate Axonal F-Actin Patch Dynamics and the Initiation of Collateral Branching  
**Citation** Journal of Neuroscience, 42(39), 7355-7369.  
**Publisher** Society for Neuroscience  
**URI** <https://doi.org/10.1523/JNEUROSCI.3107-20.2022>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7491>  
**Date of Publication** 2022-09

**Author(s)** Mehdiratta, Kritee; SINGH, SHUBHAM; KAMAT, SIDDHESH S.; GOKHALE , RAJESH S. et al.  
**Title** Respiratory Quinone Switches from Menaquinone to Polyketide Quinone during the Development Cycle in Streptomyces sp. Strain MNU77  
**Citation** Microbiology Spectrum.  
**Publisher** American Society for Microbiology  
**URI** <https://doi.org/10.1128/spectrum.02597-22>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7515>  
**Date of Publication** 2022-12

**Author(s)** Roy, Aiendrila; Padhi, Swati Shree; Khyriem, Ibakordor; NIKOSE, SAKET; Sankar, S. H. Harsha  
**Title** Resetting the epigenome: Methylation dynamics in cancer stem cells  
**Citation** Frontiers in Cell and Developmental Biology, 10, 909424.  
**Publisher** Frontiers Media S.A.  
**URI** <https://doi.org/10.3389/fcell.2022.909424>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7447>  
**Date of Publication** 2022-09

**Author(s)** SHANBHAG, KARTHIK; SHARMA, KAVITA; KAMAT, SIDDHESH S.  
**Title** Photoreactive bioorthogonal lipid probes and their applications in mammalian biology  
**Citation** RSC Chemical Biology.  
**Publisher** Royal Society of Chemistry  
**URI** <https://doi.org/10.1039/D2CB00174H>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7514>  
**Date of Publication** 2022-12

[Go to top](#)

**Author(s)** Vaid, Pooja M.; SHASHIDHARA, L. S. et al.  
**Title** Evaluation of tumor-infiltrating lymphocytes (TILs) in molecular subtypes of an Indian cohort of breast cancer patients  
**Citation** Diagnostic Pathology, 17, 91.  
**Publisher** BioMed Central Ltd.  
**URI** <https://doi.org/10.1186/s13000-022-01271-y>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7488>  
**Date of Publication** 2022-12

[Go to top](#)

# CHEMISTRY

## Journal Articles

**Author(s)** DABHADE, AKASH; CHAUHAN, AKSHAY; CHAUDHURY, SRABANTI  
**Title** Coupling Effects of Electrostatic Interactions and Salt Concentration Gradient in Polymer Translocation through a Nanopore: A Coarse-Grained Molecular Dynamics Simulations Study  
**Citation** ChemPhysChem.  
**Publisher** Wiley  
**URI** <https://doi.org/10.1002/cphc.202200666>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7490>  
**Date of Publication** 2022-10

**Author(s)** DUTTA, SUBHAJIT; MORE, YOGESHWAR D.; FAJAL, SAHEL; MANDAL, WRITAKSHI; DAM, GOURAB K.; GHOSH, SUJIT K.  
**Title** Ionic metal-organic frameworks (iMOFs): progress and prospects as ionic functional materials  
**Citation** Chemical Communications, 58(19), 13676-13698.  
**Publisher** Royal Society of Chemistry  
**URI** <https://doi.org/10.1039/D2CC05131A>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7493>  
**Date of Publication** 2022-12

**Author(s)** DUTTA, TANIYA; Kashid, Somnath M.; HOODA, RAHUL; SHEIKH, TARIQ; Chowdhury, Arindam; NAG, ANGSHUMAN  
**Title** Edge versus Interior Mn<sup>2+</sup> Doping in 2D Layered Butylammonium Lead Bromide Perovskite Single Crystals  
**Citation** Journal of Physical Chemistry C, 126(49), 21109-21116.  
**Publisher** American Chemical Society  
**URI** <https://doi.org/10.1021/acs.jpcc.2c06911>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7541>  
**Date of Publication** 2022-12

[Go to top](#)

**Author(s)** FAJAL, SAHEL; Hassan, Atikur; MANDAL, WRITAKSHI; Shirolkar, Mandar M. M.; LET, SUMANTA; Das, Neeladri; GHOSH, SUJIT K.

**Title** Ordered Macro/Microporous Ionic Organic Framework for Efficient Separation of Toxic Pollutants from Water

**Citation** Angewandte Chemie International Edition.

**Publisher** Wiley

**URI** <https://doi.org/10.1002/anie.202214095>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7537>

**Date of Publication** 2022-11

**Author(s)** GOURKHEDE, RANI; PRAJESH, NEETU; GUPTA, RISHABH; BOOMISHANKAR, RAMAMOORTHY

**Title** Synthesis and ferroelectric behaviour of an axially symmetric octahedral [Cu<sub>6</sub>L<sub>8</sub>]<sup>12+</sup> cage

**Citation** Journal of Chemical Sciences, 134, 115.

**Publisher** Springer Nature

**URI** <https://doi.org/10.1007/s12039-022-02112-7>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7492>

**Date of Publication** 2022-11

**Author(s)** Gupta, Kavya; Mathew, Abraham Binoy; CHAKRAPANI, HARINATH; Saini, Deepak Kumar

**Title** H<sub>2</sub>S contributed from CSE during cellular senescence suppresses inflammation and nitrosative stress

**Citation** Biochimica et Biophysica Acta (BBA) - Molecular Cell Research, 1870(2), 119388.

**Publisher** Elsevier B.V.

**URI** <https://doi.org/10.1016/j.bbamcr.2022.119388>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7511>

**Date of Publication** 2023-02

**Author(s)** HOSSAIN, JABED; Gopinath, Jishnu Sai; Tothadi, Srinu; Parameswaran, Pattiyil; KHAN, SHABANA

**Title** NHSi/NHGe-Supported Copper Halide and Pseudohalide Complexes: Synthesis and Application

**Citation** Organometallics, 41(23), 3706-3717.

**Publisher** American Chemical Society

**URI** <https://doi.org/10.1021/acs.organomet.2c00480>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7516>

**Date of Publication** 2022-12

[Go to top](#)

**Author(s)** METYA, SURAJIT; DAS, ALOKE  
**Title** S-H...O Hydrogen Bond Can Win over O-H...S Hydrogen Bond: Gas-Phase Spectroscopy of 2-Fluorothiophenol...H<sub>2</sub>O Complex  
**Citation** Journal of Physical Chemistry A, 126(49), 9178-9189.  
**Publisher** American Chemical Society  
**URI** <https://doi.org/10.1021/acs.jpca.2c06083>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7538>  
**Date of Publication** 2022-12

**Author(s)** SHIRAJ, ABDUL; Ramabhadran, Raghunath O.; GANESH, KRISHNA N.  
**Title** Aza-PNA: Engineering E-Rotamer Selectivity Directed by Intramolecular H-bonding  
**Citation** Organic Letters, 24(40), 7421-7427.  
**Publisher** American Chemical Society  
**URI** <https://doi.org/10.1021/acs.orglett.2c02993>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7542>  
**Date of Publication** 2022-10

**Author(s)** Siddiqui, Zahir Ali; Lambud, Sushil; Bhadke, Anil; Kumar, Ravi; PRAJESH, NEETU; Sekar, Nagaiyan; More, Sandeep  
**Title** Unexpected formation of 2-methyl-1H-naphtho [2, 3-d] imidazole via decarboxylation governed mechanistic pathway  
**Citation** Chemical Physics, 565, 111735.  
**Publisher** Elsevier B.V.  
**URI** <https://doi.org/10.1016/j.chemphys.2022.111735>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7489>  
**Date of Publication** 2023-01

[Go to top](#)

# EARTH AND CLIMATE SCIENCE

## Journal Articles

|                            |   |
|----------------------------|---|
| <b>Author(s)</b>           | BANERJEE, ARGHA; Singh, Ujjwal; SHETH, CHINTAN  |
| <b>Title</b>               | Disaggregating geodetic glacier mass balance to annual scale using remote-sensing proxies   |
| <b>Citation</b>            | Journal of Glaciology.  |
| <b>Publisher</b>           | Cambridge University Press  |
| <b>URI</b>                 | <a href="https://doi.org/10.1017/jog.2022.89">https://doi.org/10.1017/jog.2022.89</a>   |
| <b>DR URI</b>              | <a href="http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7512">http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7512</a> |
| <b>Date of Publication</b> | 2022-12   |

[Go to top](#)

# HUMANITIES AND SOCIAL SCIENCES

## Book Chapters

**Author(s)** Shylaja, B. S.; PAI, VENKETESWARA R.  
**Title** Star names in Indian culture - a search leading to their evolution  
**Citation** Astronomy in Culture- Cultures of Astronomy Astronomie in der Kultur- Kulturen der Astronomie, 351-360.  
**Publisher** German Astronomical Society  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7535>  
**Date of Publication** 2022

**Author(s)** PAI, VENKETESWARA R.  
**Title** An Appraisal of Vākyakaraṇa of Parameśvara  
**Citation** History and Development of Mathematics in India, 269-277.  
**Publisher** National Mission for Manuscripts and DK Printworlds  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7548>  
**Date of Publication** 2022

[Go to top](#)

# MATHEMATICS

**Author(s)** Arapostathis, Ari; BISWAS, ANUP; ROYCHOWDHURY, PRASUN  
**Title** Generalized principal eigenvalues on  $R^d$  of second order elliptic operators with rough nonlocal kernels  
**Citation** Nonlinear Differential Equations and Applications, 30, 10.  
**Publisher** Springer Nature  
**URI** <https://doi.org/10.1007/s00030-022-00821-z>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7494>  
**Date of Publication** 2022-11

**Author(s)** Balakumar, G. P.; BORAH, DIGANTA; Mahajan, Prachi; Verma, Kaushal  
**Title** Limits of an increasing sequence of complex manifolds  
**Citation** Annali di Matematica Pura ed Applicata (1923).  
**Publisher** Springer Nature  
**URI** <https://doi.org/10.1007/s10231-022-01285-9>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7518>  
**Date of Publication** 2022-11

**Author(s)** BISWAS, ANUP; Pradhan, Somnath  
**Title** Ergodic risk-sensitive control for regime-switching diffusions  
**Citation** Systems & Control Letters, 170,105399.  
**Publisher** Elsevier B.V.  
**URI** <https://doi.org/10.1016/j.sysconle.2022.105399>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7540>  
**Date of Publication** 2022-12

[Go to top](#)

# PHYSICS

- Author(s)** CMS Collaboration; Sirunyan, A. M.; ALPANA, K.; DUBE, SOURABH; KANSAL, B.; LAHA, A.; PANDEY, S.; RANE, A.; RASTOGI, A.; SHARMA, SEEMA et al.
- Title** Search for Higgs Boson Pair Production in the Four  $b$  Quark Final State in Proton-Proton Collisions at  $\sqrt{s}=13$  TeV
- Citation** Physical Review Letters, 129(8), 081802.
- Publisher** American Physical Society
- URI** <https://doi.org/10.1103/PhysRevLett.129.081802>
- DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7543>
- Date of Publication** 2022-08
- 
- Author(s)** GHOSH, RATHEEJIT; MISHRA, CHINMAYEE; Santos, Luis; NATH, REJISH
- Title** Droplet arrays in doubly dipolar Bose-Einstein condensates
- Citation** Physical Review A, 106(6), 063318.
- Publisher** American Physical Society
- URI** <https://doi.org/10.1103/PhysRevA.106.063318>
- DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7544>
- Date of Publication** 2022-12
- 
- Author(s)** Zevin, Michael; Nugent, Anya E.; ADHIKARI, SUSMITA; Fong, Wen-fai; Holz, Daniel E.; Kelley, Luke Zoltan
- Title** Observational Inference on the Delay Time Distribution of Short Gamma-Ray Bursts
- Citation** Astrophysical Journal Letters, 940 (1).
- Publisher** IOP Publishing
- URI** <https://doi.org/10.3847/2041-8213/ac91cd>
- DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/7513>
- Date of Publication** 2022-11

[Go to top](#)

\*\*\*