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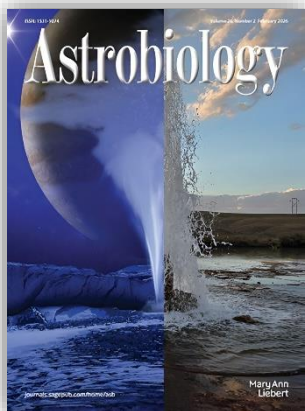
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BIOLOGY

Journal Articles



Author(s): BANDYOPADHYAY, UDITA; DAS, SOURADEEP; MULEWAR, SAHIL
SUNIL; TEJASHWINI, R.; RAJAMANI, SUDHA

Title: Amino Acids as Molecular Linchpins in the Fundamental Prebiotic Processes of RNA Copying and Vesicle Formation

Citation: Astrobiology.

Publisher: Sage

URI: <https://doi.org/10.1177/15311074261434675>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10911>

Publication Date: 2026-03



Author(s): Bauer, Marianne; LEELAVATI NARLIKAR et al.

Title: Unifying theories in high-dimensional biophysics: approaches, challenges and opportunities

Citation: npj systems biology and applications, 12, 43.

Publisher: Springer Nature

URI: <https://doi.org/10.1038/s41540-026-00680-9>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10879>

Publication Date: 2026-03



Author(s): DILSHA, C.; SHIJU, SALIMA; SHAH, NEEL AJAY; Inamdar, Mandar
M.; SHASHIDHARA, L.S.

Title: Differences in cellular mechanics and ECM dynamics shape differential development of wing and haltere in Drosophila

Citation: Developmental Biology, 353, 10-24.

Publisher: Elsevier B.V.

URI: <https://doi.org/10.1016/j.ydbio.2026.03.012>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10893>

Publication Date: 2026-07

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Author(s): GANAIE, ISHTIYAQ A.; UDGAONKAR, JAYANT B.

Title: Liquid-liquid Phase Separation Modulates the Structural Heterogeneity of Tau Amyloid Fibrils

Citation: Journal of Molecular Biology, 438(09), 169737.

Publisher: Elsevier B.V.

URI: <https://doi.org/10.1016/j.jmb.2026.169737>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10890>

Publication Date: 2026-05



Author(s): Gharui, Sowmomita; Puntambekar, Shraddha; Sarkar, Ram Rup; NARLIKAR, LEELAVATI; Sengupta, Durba

Title: Recognition of diverse GATA motifs necessitates multimodal GATA3-DNA binding

Citation: Biochemical and Biophysical Research Communications, 817, 153718.

Publisher: Elsevier B.V.

URI: <https://doi.org/10.1016/j.bbrc.2026.153718>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10894>

Publication Date: 2026-06



Author(s): KAUSHIK, ANUSHKA; UDGAONKAR, JAYANT B.

Title: Chain Entropy Modulates Cooperativity Selectively within Intermediate Subpopulations during Protein Unfolding

Citation: Biochemistry.

Publisher: American Chemical Society

URI: <https://doi.org/10.1021/acs.biochem.6c00188>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10922>

Publication Date: 2026-04

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Author(s): Lo, Lai Ka; BARUAH, ASHMITA; Paxton, Robert J.; Ulrich, Yuko

Title: Experimental infections with a honey bee virus induce fitness costs in ant colonies

Citation: Biology Letters, 22(04).

Publisher: The Royal Society

URI: <https://doi.org/10.1098/rsbl.2025.0779>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10931>

Publication Date: 2026-04



Author(s): Mondal, Atanu; CHAKRABORTY, ARNAB; Nandi, Sandhik; Singh, Vipin; KAMAT, SIDDHESH S.; Das, Chandrima

Title: Transcription factor 19 modulates fatty acid elongation and unfolded protein response to attenuate palmitic acid-induced hepatic dysfunction

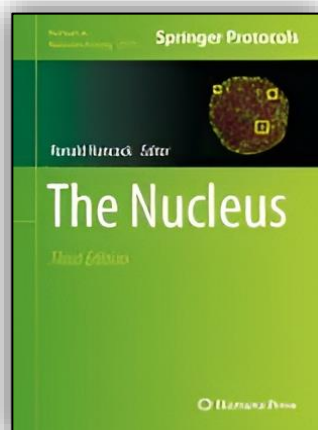
Citation: Nature Communications.

Publisher: Springer Nature

URI: <https://doi.org/10.1038/s41467-026-72138-9>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10913>

Publication Date: 2026-04



Author(s): Pramanick, Debarati; SAHA, KISHAN; Roy, Anjalika

Title: Assessment of genetic diversity among population of Aquilaria malaccensis Lam. from Tripura, India, revealed by ISSR and SSR markers

Citation: Nucleus

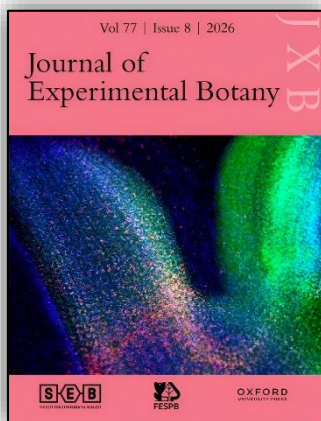
Publisher: Springer Nature

URI: <https://doi.org/10.1007/s13237-026-00650-w>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10941>

Publication Date: 2026-03

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Author(s): Tiwari, Rakesh; BANDARU, PEDDIRAJU; BARUA, DEEPAK et al.

Title: Tropical forest trees with higher thermal optima of photosynthesis exhibit lower PSII heat stability

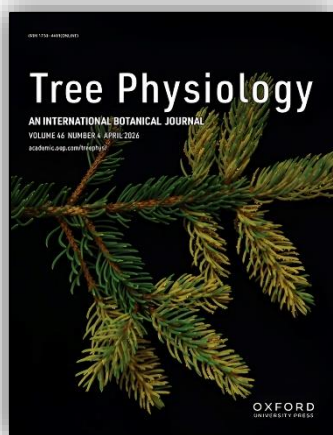
Citation: Journal of Experimental Botany.

Publisher: Oxford University Press

URI: <https://doi.org/10.1093/jxb/erag045>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10938>

Publication Date: 2026-01



Author(s): SUNNY, RON; VENU, MALAVIKA; BANDARU, PEDDIRAJU; CHAKRABARTY, SOUPARNA; BARUA, DEEPAK

Title: It's about time! Leaf minimum conductance determines time to reach critical thresholds for leaf dehydration in a seasonal tropical forest

Citation: Tree Physiology, 46(04).

Publisher: Oxford University Press

URI: <https://doi.org/10.1093/treephys/tpag027>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10875>

Publication Date: 2026-04



Author(s): Vaid, Pooja; SHASHIDHARA, L. S. et al.

Title: EGFR and AR expression and co-expression in Indian triple-negative breast cancer with patient outcome association

Citation: Scientific Reports, 16, 11010.

Publisher: Springer Nature

URI: <https://doi.org/10.1038/s41598-026-40913-9>

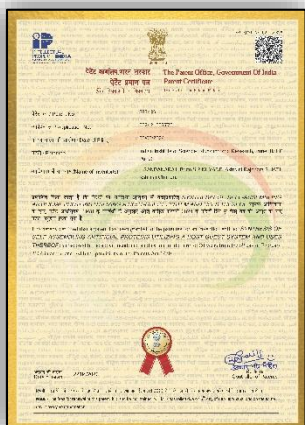
DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10892>

Publication Date: 2026-02

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CHEMISTRY

Patent



Inventor(s): BRITTO, SANDANARAJ SELVARAJ; KHYADE, ASHWINI RAJENDRA; HATI, KSHITISH CHANDRA

Title: Synthesis of Self-Assembling Artificial Proteins Utilizing A Host-Guest System And Uses Thereof

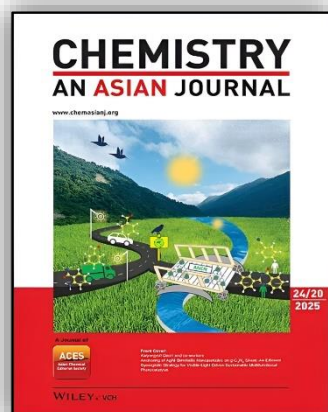
Application Number: 202421007772

Patent Number: 587439

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10918>

Publication Date: 2026-04

Journal Articles



Author(s): BANKAR, ONKAR S.; PAL, CHHABI; DHAMYAN, BHAVYA; SABALE, ABHIJEET S.; BHAT, RAMAKRISHNA G.

Title: Ruthenium Catalyzed Divergent Reactivity of Acceptor-Acceptor DIPOL With Different Thioether Derivatives: Access to Bench Stable Sulfonium Ylides and Alkoxy Pyrazoles

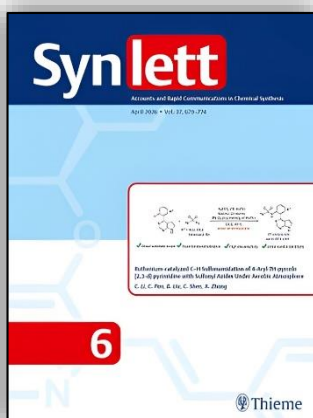
Citation: Chemistry - An Asian Journal, 21(07).

Publisher: Wiley

URI: <https://doi.org/10.1002/asia.70719>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10923>

Publication Date: 2026-04



Author(s): BASKARAN, S.; BHAT, RAMAKRISHNA G.

Title: Prof. Dr. Srinivasan Chandrasekaran: A Distinguished Organic Chemist Who Inspired many through his Scientific Achievements, Teaching and Administrative Acumen

Citation: Synlett, 37(07), III-IV.

Publisher: Thieme

URI: <https://doi.org/10.1055/a-2825-4252>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10924>

Publication Date: 2026-04

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Author(s): CHAKRABORTY, INDRA NARAYAN; SURY, ADHRA S.; CHATURVEDI, AMAN; Wang, Kaixing; DHANKHAR, ANKIT; MANDAL, PANKAJ; Dietzek-Ivanšić, Benjamin ; PILLAI, PRAMOD P.

Title: Photon upconversion with indium phosphide quantum dots enables high-energy photoreactions using visible light

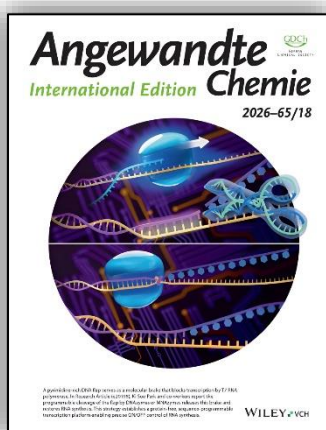
Citation: Chemical Science, 17(01), 626-633.

Publisher: Royal Society of Chemistry

URI: <https://doi.org/10.1039/D5SC07232H>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10936>

Publication Date: 2026-01



Author(s): Ghosh, Adrija; Menon, Surabhi; SAHOO, SUPRIYA; Surendran, Devika; DEKA, NILOTPAL; Zaręba, Jan K.; BOOMISHANKAR, RAMAMOORTHY; Waghmare, Umesh V.; Maji, Tapas Kumar

Title: Donor-Acceptor Stacks in Flexible Porous Coordination Polymers Toward Room-Temperature Ferroelectricity

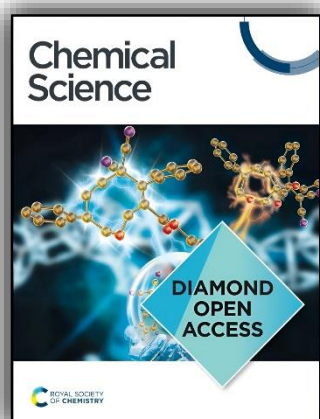
Citation: Angewandte Chemie International Edition

Publisher: Wiley

URI: <https://doi.org/10.1002/anie.3779576>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10903>

Publication Date: 2026-04



Author(s): Hassan, Mirja Md Mahamudul; GURIA, SAIKAT; Kanojia, Priyanka Ramnath; GHOSH, ANOGH; MONDAL, PRIYONU; Sunoj, Raghavan B.; CHATTOPADHYAY, BUDDHADEB

Title: Metal-free deoxygenative borylation of pyrazinyl ethers via an unusual boron-walking mechanism

Citation: Chemical Science

Publisher: Royal Society of Chemistry

URI: <https://doi.org/10.1039/D5SC09731B>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10925>

Publication Date: 2026-04

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Author(s): MUKHERJEE, NILANJANA; MAJUMDAR, MOUMITA

Title: Ligand-Centered Redox-Assisted Synthesis of a Bis(imino)acenaphthene-Stabilized Tellurium(II) Dicationic Compound

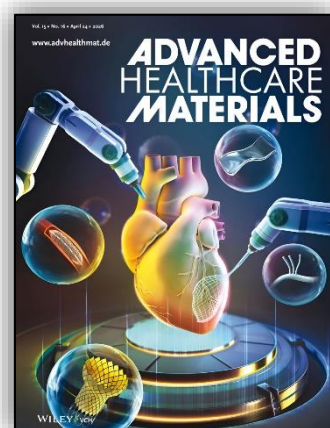
Citation: Organometallics, 45(06).

Publisher: American Chemical Society

URI: <https://doi.org/10.1021/acs.organomet.6c00026>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10880>

Publication Date: 2026-03



Author(s): NISAL, RAHUL; KAMBALE, PARSHURAM; SINGH, SUNIDHI; PATHAN, SHAHIDKHAN; JAYAKANNAN, MANICKAM

Title: B-Sheet Polyelectrolyte Nanostructures: Design, Self-Assembly, In Vitro, and In Vivo Biological Activity

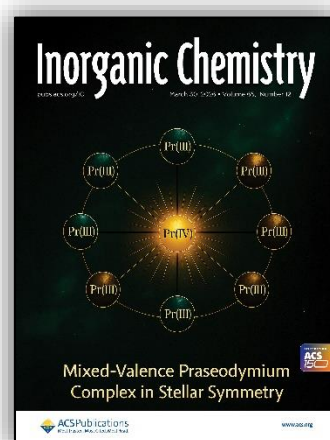
Citation: Advanced Healthcare Materials.

Publisher: Springer Nature

URI: <https://doi.org/10.1002/adhm.71111>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10886>

Publication Date: 2026-03



Author(s): PATEL, NIRANJAN; RAUT, RAVINDRA K.; Yildiz, Cem. B.; MAJUMDAR, MOUMITA

Title: Butadiene-Based Multidentate Ligand Formation via Stannylenes Assisted C-C Coupling

Citation: Inorganic Chemistry, 65(12), 6744-6753.

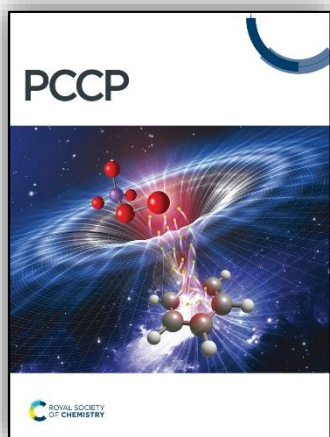
Publisher: American Chemical Society

URI: <https://doi.org/10.1021/acs.inorgchem.6c00032>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10878>

Publication Date: 2026-03

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Author(s): Pathak, Swaraj; MISHRA, SANDEEP KUMAR; Nath, Nilamoni

Title: Intramolecular hydrogen bond-driven conformational preferences in pyridine-containing dibenzamide and dicarboxamide derivatives: evidence from NMR and DFT-based computation

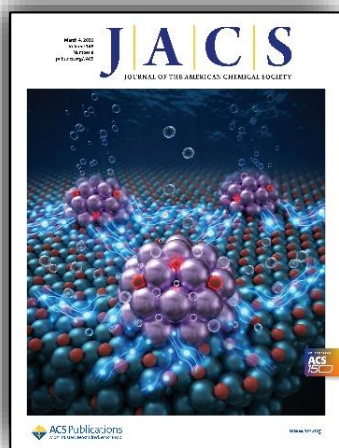
Citation: Physical Chemistry Chemical Physics.

Publisher: Royal Society of Chemistry

URI: <https://doi.org/10.1039/D5CP04810A>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10907>

Publication Date: 2026-03



Author(s): PRAJESH, NEETU; KUSHWAHA, VIKASH; SINGH, CHANDAN K.; Sharma, Vijay Bhan; Praveenkumar, Balu; Steiner, Alexander; Ptak, Maciej; Kabra, Dinesh; Zaręba, Jan K.; BOOMISHANKAR, RAMAMOORTHY

Title: Flexible organic piezoelectric nanogenerator with high power density and excellent ferroelectric and memristor characteristics

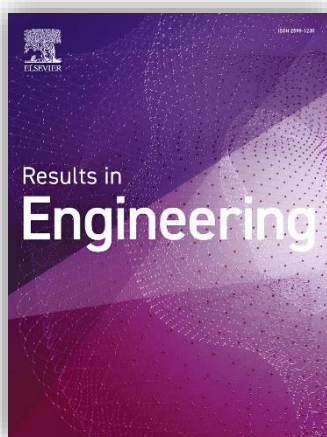
Citation: Journal of the American Chemical Society, 148(08), 8255-8263.

Publisher: American Chemical Society

URI: <https://doi.org/10.1021/jacs.5c18104>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10754>

Publication Date: 2026-03



Author(s): Rai, Apoorva; Walke, Pravin S.; Kate, Vaibhav Vilas; Gouraha, Sourabh; SHEKHAR, PRAGALBH; Tewari, H.S.; Singh, Jai

Title: Microwave-assisted green synthesis of Ni-integrated ZnCo₂O₄ nanospheres with enhanced photocatalytic and supercapacitive performance

Citation: Results in Engineering, 30, 109783.

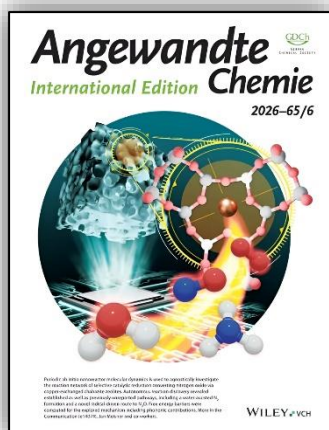
Publisher: Elsevier B.V.

URI: <https://doi.org/10.1016/j.rineng.2026.109783>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10939>

Publication Date: 2026-06

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Author(s): SAIKIA, SAJID; GHOSH, ANIMESH; Gálico, Diogo Alves; Calado, Claudia Manuela Santos; Murugesu, Muralee; NAG, ANGSUMAN

Title: Spin-Flip Upconversion Luminescence and Tunable Downshifting Near-Infrared Emissions via 4d-4f Interaction in Doped Halide Perovskite

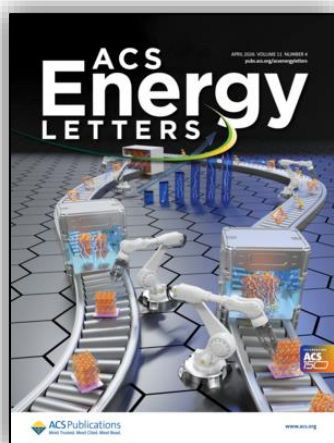
Citation: Angewandte Chemie International Edition

Publisher: Wiley

URI: <https://doi.org/10.1002/anie.7420770>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10888>

Publication Date: 2026-04



Author(s): SAIKIA, SAJID; GHOSH, ANIMESH; NAG, ANGSUMAN

Title: Transition-Metal-Doped Halide Perovskites for Near-Infrared Emissions: Beyond Oxides

Citation: ACS Energy Letters, 11(04), 3024-3037.

Publisher: American Chemical Society

URI: <https://doi.org/10.1021/acsenerylett.6c00105>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10927>

Publication Date: 2026-04

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DATA SCIENCE

Journal Articles



Author(s): Bauer, Marianne; LEELAVATI NARLIKAR et al.

Title: Unifying theories in high-dimensional biophysics: approaches, challenges and opportunities

Citation: npj systems biology and applications, 12, 43.

Publisher: Springer Nature

URI: <https://doi.org/10.1038/s41540-026-00680-9>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10879>

Publication Date: 2026-03



Author(s): Gharui, Sowmomita; Puntambekar, Shraddha; Sarkar, Ram Rup; NARLIKAR, LEELAVATI; Sengupta, Durba

Title: Recognition of diverse GATA motifs necessitates multimodal GATA3-DNA binding

Citation: Biochemical and Biophysical Research Communications, 817, 153718.

Publisher: Elsevier B.V.

URI: <https://doi.org/10.1016/j.bbrc.2026.153718>

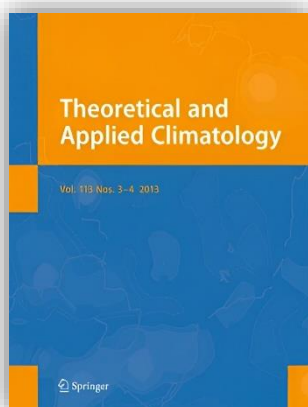
DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10894>

Publication Date: 2026-06

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EARTH AND CLIMATE SCIENCE

Journal Articles



Author(s): Kumar, Bipin; Yadav, Bhvisy Kumar; MUKHOPADHYAY, SOUMYODEEP; ROHAN, RAKSHIT; Singh, Bhupendra Bahadur; Chattopadhyay, Rajib; Chilukoti, Nagraju; Sahai, Atul Kumar

Title: Estimation of location-specific precipitation using Deep Neural Networks

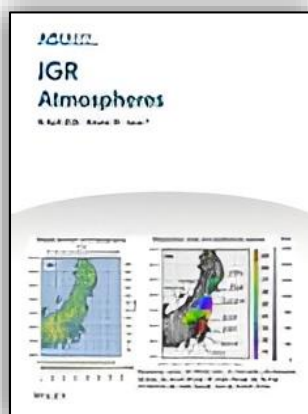
Citation: Theoretical and Applied Climatology, 157, 223.

Publisher: Springer Nature

URI: <https://doi.org/10.1007/s00704-026-06185-z>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10940>

Publication Date: 2026-03



Author(s): SIMON, DANIEL; NEENA, J. M.

Title: Diversity of MJO Initiations Over the Indian Ocean Basin

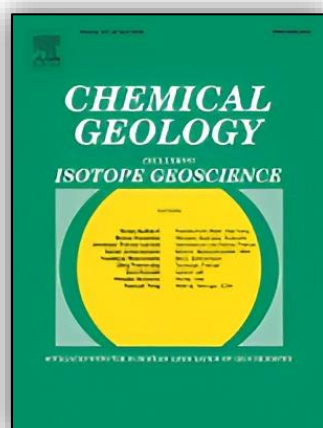
Citation: Journal of Geophysical Research: Atmospheres, 131(07).

Publisher: Wiley

URI: <https://doi.org/10.1029/2025JD045899>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10891>

Publication Date: 2026-04



Author(s): VENUGOPAL, ACHYUTH; TRIPATHY, GYANA RANJAN; Goswami, Vineet; Singh, Birendra Pratap

Title: Proterozoic Nitrogen cycling in shallow marine basins: A quantitative assessment using shale $\delta^{15}\text{N}$ values

Citation: Chemical Geology, 707, 123310.

Publisher: Elsevier B.V.

URI: <https://doi.org/10.1016/j.chemgeo.2026.123310>

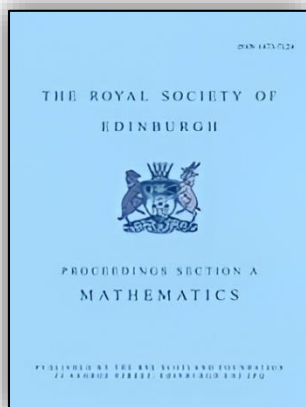
DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10876>

Publication Date: 2026-04

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MATHEMATICS

Journal Articles



Author(s): ARORA, RAMANDEEP SINGH; Daundkar, Navnath

Title: Equivariant and invariant parametrized topological complexity

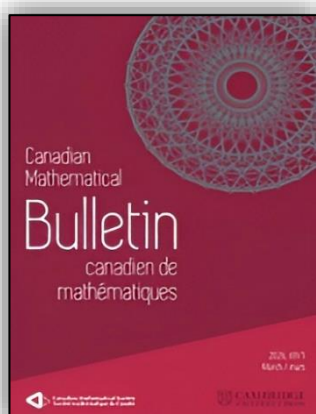
Citation: Proceedings of the Royal Society of Edinburgh. Section A: Mathematics

Publisher: Cambridge University Press

URI: <https://doi.org/10.1017/prm.2026.10147>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10920>

Publication Date: 2026-04



Author(s): BHIMANI, DIVYANG G.; Dalai, Rupak K.

Title: Pointwise convergence to initial data of heat and Hermite-heat equations in modulation spaces

Citation: Canadian Mathematical Bulletin

Publisher: Cambridge University Press

URI: <https://doi.org/10.4153/S0008439526101969>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10909>

Publication Date: 2026-04



Author(s): CHOUDHARY, RAM KARAN; Prajapati, Sunil Kumar

Title: A combinatorial technique for the Wedderburn decomposition of rational group algebras of nested GVZ p-groups

Citation: Journal of Algebraic Combinatorics.

Publisher: Springer Nature

URI: <https://doi.org/10.1007/s10801-026-01527-6>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10928>

Publication Date: 2026-04

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Author(s): ROY, SUBHAJIT

Title: L^p Hardy inequalities with homogeneous weights

Citation: Annali di Matematica Pura ed Applicata (1923 -)

Publisher: Springer Nature

URI: <https://doi.org/10.1007/s10231-026-01694-0>

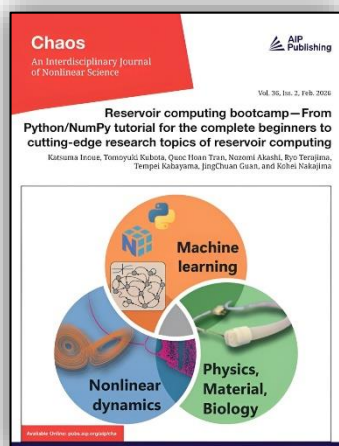
DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10906>

Publication Date: 2026-04

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PHYSICS

Journal Articles



Author(s): AGARWAL, AJAY; SANTHANAM, M. S.

Title: Congestion and extreme events in urban street networks

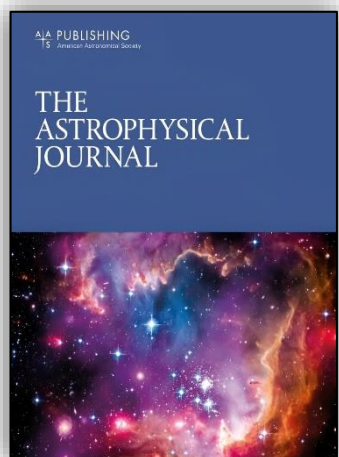
Citation: Chaos, 36(02), 023134.

Publisher: AIP Publishing

URI: <https://doi.org/10.1063/5.0284520>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10912>

Publication Date: 2025-02



Author(s): Chakraborty, Amlan; Ray, Tulip; Das, Subinoy; BANERJEE, ARKA; Ganesan, Vidhya

Title: Hint of Dark Matter-Dark Energy Interaction in DESI DR2 and Current Cosmological Dataset?

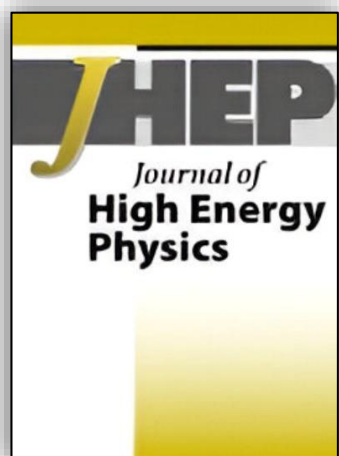
Citation: Astrophysical Journal, 998(01).

Publisher: IOP Publishing

URI: <https://doi.org/10.3847/1538-4357/ae2ff8>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10885>

Publication Date: 2026-02



Author(s): CMS Collaboration; Hayrapetyan, A.; ALPANA, A.; DUBE, SOURABH; HAZARIKA, P.; KANSAL, B.; LAHA, A.; SHARMA, R.; SHARMA, SEEMA; VAISH, K.Y. et al.

Title: Vector boson scattering and anomalous quartic couplings in final states with $\ell\nu q\bar{q}$ or $\ell\ell q\bar{q}$ plus jets using proton-proton collisions at $\sqrt{s} = 13$ TeV

Citation: Journal of High Energy Physics, 2026(03), 22.

Publisher: Springer Nature

URI: [https://doi.org/10.1007/JHEP03\(2026\)022](https://doi.org/10.1007/JHEP03(2026)022)

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10883>

Publication Date: 2026-03

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Author(s): CMS Collaboration; Hayrapetyan, A.; ALPANA, A.; DUBE, SOURABH; HAZARIKA, P.; KANSAL, B.; LAHA, A.; SHARMA, R.; SHARMA, SEEMA; VAISH, K.Y. et al.

Title: Model-independent measurement of the Higgs boson associated production with two jets and decaying to a pair of W bosons in proton-proton collisions at $\sqrt{s} = 13$ TeV

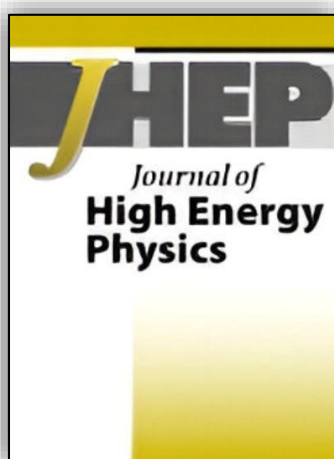
Citation: Journal of High Energy Physics, 2026(03), 73.

Publisher: Springer Nature

URI: [https://doi.org/10.1007/JHEP03\(2026\)073](https://doi.org/10.1007/JHEP03(2026)073)

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10884>

Publication Date: 2026-03



Author(s): CMS Collaboration; Hayrapetyan, A.; ALPANA, A.; DUBE, SOURABH; HAZARIKA, P.; KANSAL, B.; LAHA, A.; SHARMA, R.; SHARMA, SEEMA; VAISH, K.Y. et al.

Title: Probing the flavour structure of dimension-6 EFT operators in multilepton final states in proton-proton collisions at $\sqrt{s} = 13$ TeV

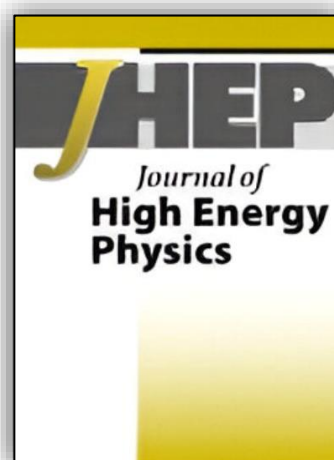
Citation: Journal of High Energy Physics, 2026(03), 140.

Publisher: Springer Nature

URI: [https://doi.org/10.1007/JHEP03\(2026\)140](https://doi.org/10.1007/JHEP03(2026)140)

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Publication Date: 2026-03



Author(s): CMS Collaboration; Hayrapetyan, A.; ALPANA, A.; DUBE, SOURABH; HAZARIKA, P.; KANSAL, B.; LAHA, A.; SHARMA, R.; SHARMA, SEEMA; VAISH, K.Y. et al.

Title: Search for low-mass hidden-valley dark showers with non-prompt muon pairs in proton-proton collisions at $\sqrt{s} = 13$ TeV

Citation: Journal of High Energy Physics, 2026(03), 189.

Publisher: Springer Nature

URI: [https://doi.org/10.1007/JHEP03\(2026\)189](https://doi.org/10.1007/JHEP03(2026)189)

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10921>

Publication Date: 2026-03

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Author(s): CMS Collaboration; Hayrapetyan, A.; ALPANA, A.; DUBE, SOURABH; HAZARIKA, P.; KANSAL, B.; LAHA, A.; SHARMA, R.; SHARMA, SEEMA; VAISH, K.Y. et al.

Title: Measurements of tt- W differential cross sections and the leptonic charge asymmetry at $\sqrt{s} = 13$ TeV

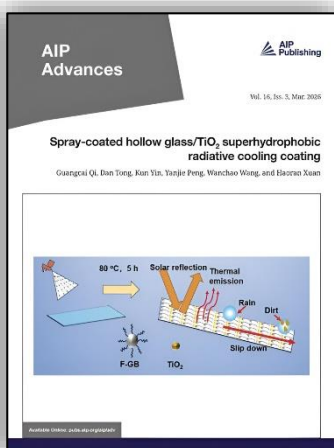
Citation: Journal of High Energy Physics, 2026(03), 83.

Publisher: Springer Nature

URI: [https://doi.org/10.1007/JHEP03\(2026\)083](https://doi.org/10.1007/JHEP03(2026)083)

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10933>

Publication Date: 2026-03



Author(s): Gupta, Shikhar Kumar; PANERI, NAVEEN et al.

Title: A rapid thermal chemical vapor deposition system for fast synthesis of epitaxial graphene under ambient pressure

Citation: AIP Advances, 16(04), 04500.

Publisher: AIP Publishing

URI: <https://doi.org/10.1063/5.0311303>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10929>

Publication Date: 2026-04



Author(s): IYER, KRISHNA V.S.; Bhattacharyya, Komal; Mendoza, Raffaele; Sollich, Peter K.; Klumpp, Stefan; Pollack, Yoav G.

Title: Viscoelasticity analysis of coarse-grained cytoskeletal simulations with Cytosim and Cytocalc

Citation: Biophysical Journal, 125(07), 1614-1622.

Publisher: Elsevier B.V.

URI: <https://doi.org/10.1016/j.bpj.2026.02.026>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10908>

Publication Date: 2026-04

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Author(s): KHAN, SAKIL; AGARWALLA, BIJAY KUMAR

Title: Emergence of distinct relaxation behavior and the quantum regression theorem in the ultrastrong-coupling limit

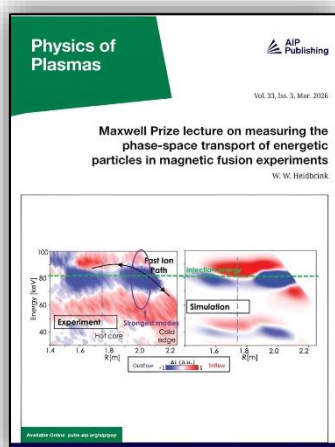
Citation: Physical Review A, 113, L010203.

Publisher: American Physical Society

URI: <https://doi.org/10.1103/38rt-fgr1>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10932>

Publication Date: 2026-01



Author(s): KRISHNA, SWATHI S.; Mishra, S. K.; JAISWAL, S.

Title: Cataloging the nonlinear waves excited by moving a charged body in the dusty plasma medium

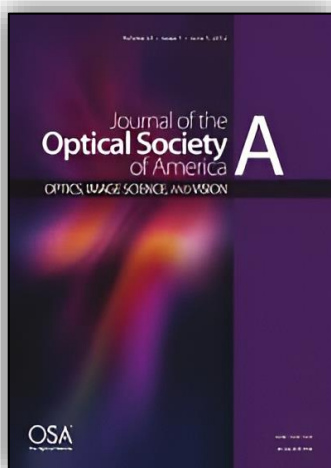
Citation: Physics of Plasmas, 33(03), 032118.

Publisher: AIP Publishing

URI: <https://doi.org/10.1063/5.0320976>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10882>

Publication Date: 2026-03



Author(s): KUMAR, G V PAVAN

Title: C.V. Raman's Exploration in Optics: A Spectrum of History

Citation: Journal of the Optical Society of America A, 43(08).

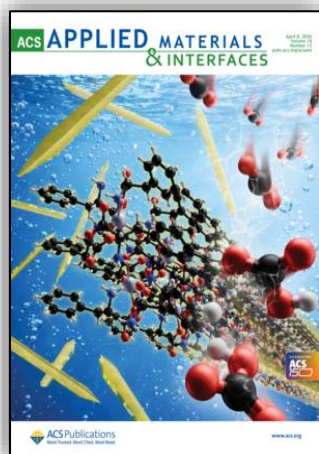
Publisher: Optica Publishing Group

URI: <https://doi.org/10.1364/JOSAA.596199>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10937>

Publication Date: 2026-03

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Author(s): MAJUMDER, SUDIPTA; CHAND, RAHUL; H L, PRADEEPA; BASU, MEGHASREE; MAHAPATRA, AVINASH; VERMA, SWETA; CHATTERJEE, SAGNIK; SHUKLA, ASHUTOSH; Watanabe, Kenji; Taniguchi, Takashi; KUMAR, G. V. PAVAN; RAHMAN, ATIKUR

Title: Revealing Intrinsic Excitonic and Interlayer Coupling in CVD-Grown TMDCs via a Bubble-Free Interface

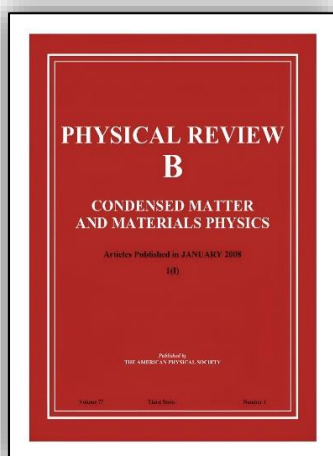
Citation: ACS Applied Materials & Interfaces, 18(13), 19404-19414.

Publisher: American Chemical Society

URI: <https://doi.org/10.1021/acsami.5c23672>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10904>

Publication Date: 2026-04



Author(s): Naik, Atharva; AGARWALLA, BIJAY KUMAR; Kulkarni, Manas

Title: Dynamics of number entropy for free fermionic systems in the presence of defects and stochastic processes

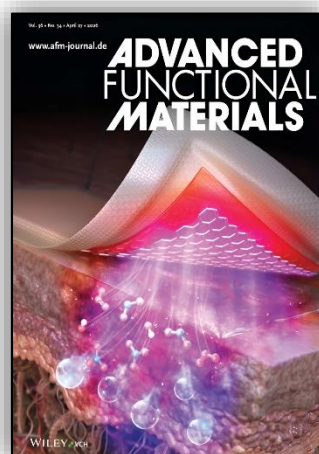
Citation: Physical Review B, 113, L161402.

Publisher: American Physical Society

URI: <https://doi.org/10.1103/bksr-fqn6>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10895>

Publication Date: 2026-04



Author(s): Saha, Suparna; Singh, Suraj Kumar; Biswas, Ripan K.; JADHAV, SWATI; Das, Bidisa; OGALE, SATISHCHANDRA

Title: Laser Unzipped Single Wall Carbon Nanotube Coating on Copper as Effective Bifunctional Electrocatalyst: An Experimental and DFT Study

Citation: Advanced Functional Materials.

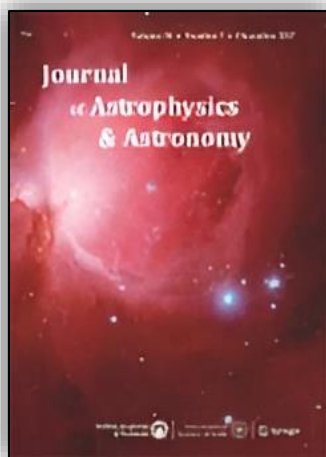
Publisher: Wiley

URI: <https://doi.org/10.1002/adfm.75512>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10919>

Publication Date: 2026-04

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Author(s): Sebastian, Jacob; BAPAT, BHAS et al.

Title: One Year of ASPEX-STEPS Operation: Characteristic Features, Observations and Science Potential

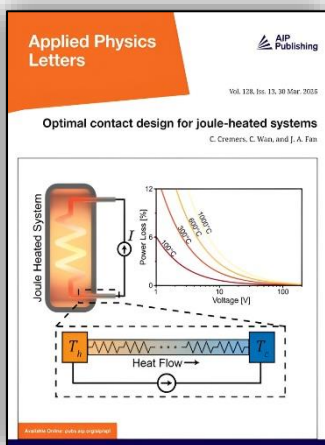
Citation: Journal of Astrophysics and Astronomy, 47(21).

Publisher: Indian Academy of Sciences

URI: <https://doi.org/10.1007/s12036-026-10134-7>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10889>

Publication Date: 2026-03



Author(s): SREERAM, P. G.; KANNAN, J. BHARATHI; SANTHANAM, M. S.

Title: Upper bounds on charging power and tangible advantage in quantum batteries

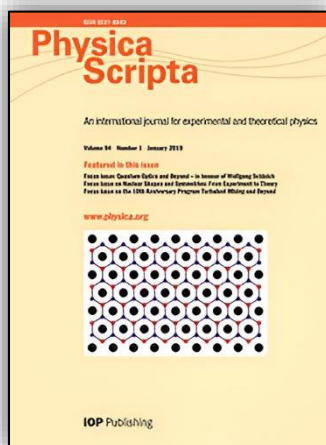
Citation: Applied Physics Letters, 128(13).

Publisher: AIP Publishing

URI: <https://doi.org/10.1063/5.0313289>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10910>

Publication Date: 2026-03



Author(s): VEDHANTH, S V U; BHUNIA, AMIT; SINGH, MOHIT K.; CHAUDHURY, YUVRAJ; Henini, Mohamed; DATTA, SHOVIK

Title: Voltage-regulated photoluminescence modulation in a 0D-2D mixed dimensional heterostructure

Citation: Physica Scripta.

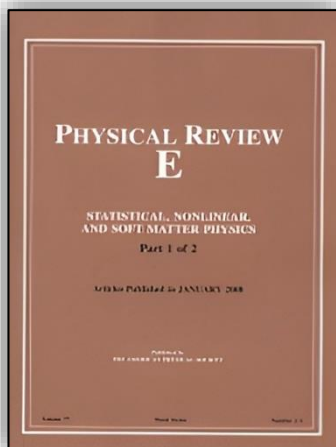
Publisher: IOP Publishing

URI: <https://doi.org/10.1088/1402-4896/ae65df>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10934>

Publication Date: 2026-04

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Author(s): VYAS, NISARG; SANTHANAM, M. S.

Title: Extreme events of quantum walks on networks

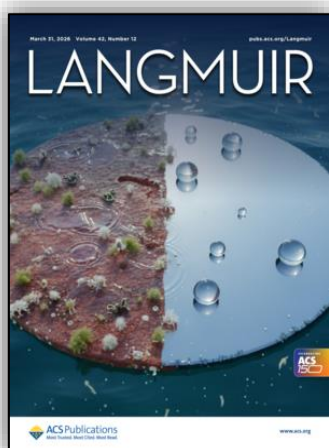
Citation: Physical Review E, 113, 044302.

Publisher: American Physical Society

URI: <https://doi.org/10.1103/physrev.113.044302>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10902>

Publication Date: 2026-04



Author(s): Zoting, Krushna R.; Bhoje, Laxman N.; KUMAR, ANKIT; Jadhav, Om G.; Sabbi, Vamshi Krishna; Ghule, Balaji G.; Gholap, Haribhau M.

Title: Understanding the NO₂ Sensing Mechanism on CdS Quantum Dots via Experimental and First-Principles Calculations

Citation: Langmuir, 42(12).

Publisher: American Chemical Society

URI: <https://doi.org/10.1021/acs.langmuir.6c00008>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10877>

Publication Date: 2026-03

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News Coverage of Recent Research Publications



Media Coverage: [[Research Matters](#)] [[Times of India](#)]

Title: Evidence for a new age constraint of the oceanic lithosphere of the Bay of Bengal

Author(s): ISMAIEL, MOHAMMAD; Krishna, Kolluru Sree

Publisher: Indian Academy of Sciences

URI: <https://doi.org/10.1007/s12040-026-02739-x>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/10689>



Sunil Bhagwat (C), Director of IISER Pune, addresses a press conference held to mark the institute's 20th anniversary. (HT)

Media Coverage: [[Hindustan Times](#)] [[Loksatta](#)] [[Punekar News](#)]

Title: IISER Pune turns 20: Coverage on academic and research outcomes from IISER Pune

URI: <https://www.iiserpune.ac.in/news/post/iiser-pune-at-20-interaction-with-press-and-media/1683>

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