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September 2024

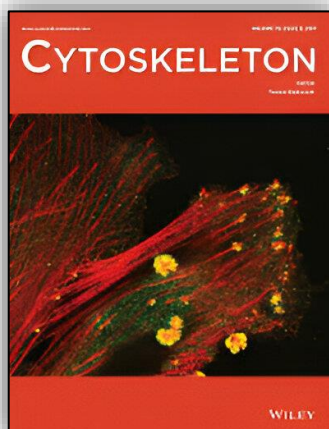


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## BIOLOGY



Author(s): BASU, JASHASWI; ATHALE, CHAITANYA A.

Title: Collective effect of *Vigna* sp. (mung) tubulin GTP hydrolysis rate divergence on microtubule filament assembly

Citation: Cytoskeleton

Publisher: Wiley

URI: <https://doi.org/10.1002/cm.21923>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9077>

Publication Date: 2024-09



Author(s): Deo, Ankita; GHOSH, RISHITA; Ahire, Snehal; Marathe, Sayali; Majumdar, Amitabha; Bose, Tania

Title: Two novel DnaJ chaperone proteins CG5001 and P58IPK regulate the pathogenicity of Huntington's disease related aggregates

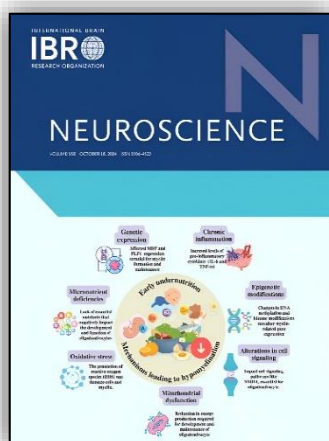
Citation: Scientific Reports, 14, 20867.

Publisher: Springer Nature

URI: <https://doi.org/10.1038/s41598-024-71065-3>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9076>

Publication Date: 2024-09



Author(s): Dudhabhate, Biru B.; Awathale, Sanjay N.; Choudhary, Amit G.; SUBHEDAR, NISHIKANT K.; Kokare, Dadasaheb M.

Title: Deep brain stimulation targeted at lateral hypothalamus-medial forebrain bundle reverses depressive-like symptoms and related cognitive deficits in rat: Role of serotonergic system

Citation: Neuroscience, 556, 96-113.

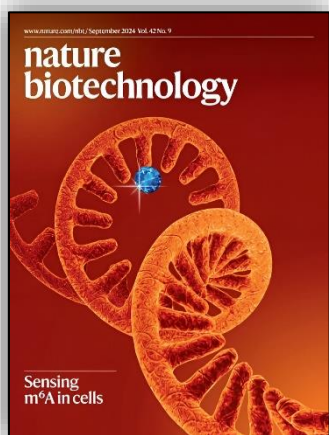
Publisher: Elsevier B.V.

URI: <https://doi.org/10.1016/j.neuroscience.2024.07.052>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9070>

Publication Date: 2024-09

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Author(s): Fishman, Chloe B.; Crawford, Kate D.; Bhattarai-Kline, Santi; POOLA, DARSHINI; Zhang, Karen; Gonzalez-Delgado, Alejandro; Rojas-Montero, Matias; Shipman, Seth L.

Title: Continuous multiplexed phage genome editing using recombitrons

Citation: Nature Biotechnology.

Publisher: Springer Nature

URI: <https://doi.org/10.1038/s41587-024-02370-5>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9083>

Publication Date: 2024-09



Author(s): Ha, Joon; Kim, Joon Young; Springer, Max; CHHABRA, AARYAN; Chung, Stephanie T.; Sumner, Anne E.; Sherman, Arthur S.; Arslanian, Silva

Title: A Mathematical Model-Derived Disposition Index Without Insulin Validated in Youth With Obesity

Citation: Journal of Clinical Endocrinology & Metabolism, dgae582.

Publisher: Oxford University Press

URI: <https://doi.org/10.1210/clinem/dgae582>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9088>

Publication Date: 2024-08



Author(s): Heim, Fabian; Mendoza, Ezequiel; KOPARKAR, AVANI; Vallentin, Daniela

Title: Disinhibition enables vocal repertoire expansion after a critical period

Citation: Nature Communications, 15, 7565.

Publisher: Springer Nature

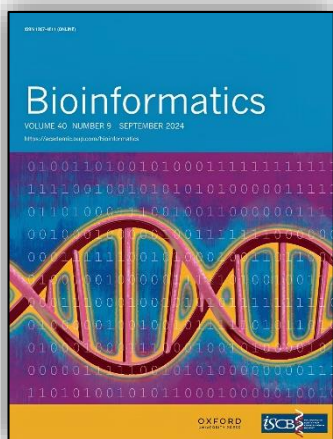
URI: <https://doi.org/10.1038/s41467-024-51818-4>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9093>

Publication Date: 2024-08

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Author(s): KHATRI, DHRUV; YADAV, SHIVANI A.; ATHALE, CHAITANYA A.

Title: KnotResolver: tracking self-intersecting filaments in microscopy using directed graphs

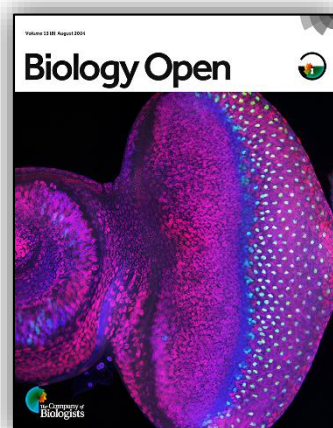
Citation: Bioinformatics, 40(09).

Publisher: Oxford University Press

URI: <https://doi.org/10.1093/bioinformatics/btae538>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9103>

Publication Date: 2024-09



Author(s): MALIK, AJAY J.; MALAVIYA, RADHIKA

Title: Meeting proceedings of the 43rd Indian Association for Cancer Research (IACR)

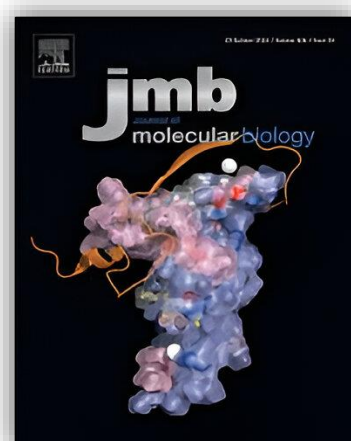
Citation: Biology Open, 13 (08), bio061613.

Publisher: The Company of Biologists

URI: <https://doi.org/10.1242/bio.061613>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9091>

Publication Date: 2024-08



Author(s): PAL, SUMAN; UDGAONKAR, JAYANT B.

Title: Slow Misfolding of a Molten Globule form of a Mutant Prion Protein Variant into a  $\beta$ -rich Dimer

Citation: Journal of Molecular Biology, 436(09), 168736.

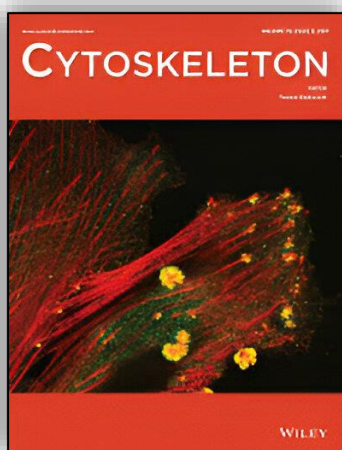
Publisher: Elsevier B.V.

URI: <https://doi.org/10.1016/j.jmb.2024.168736>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9071>

Publication Date: 2024-10

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Author(s): Poddar, Sakshi Mahesh; CHAKRABORTY, JOYEETA; GAYATHRI, PANANGHAT; Srinivasan, Ramanujam

Title: Disruption of salt bridge interactions in the inter-domain cleft of the tubulin-like protein FtsZ of Escherichia coli makes cells sensitive to the cell division inhibitor PC190723

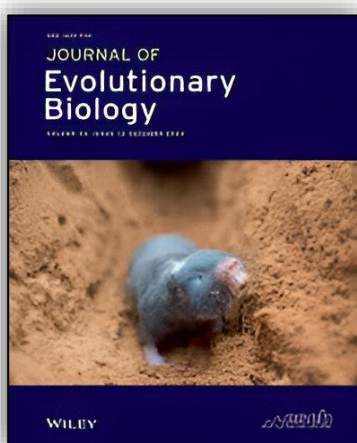
Citation: Cytoskeleton

Publisher: Wiley

URI: <https://doi.org/10.1002/cm.21924>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9092>

Publication Date: 2024-09



Author(s): RUCHITHA, B. G.; Kumar, Nishant; Sura, Chand; Tung, Sudipta

Title: Selection for greater dispersal in early life increases rate of age-dependent decline in locomotor activity and shortens lifespan

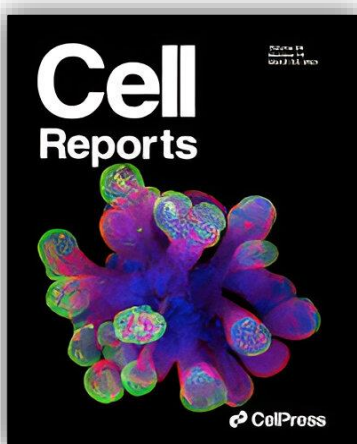
Citation: Journal of Evolutionary Biology.

Publisher: Oxford University Press

URI: <https://doi.org/10.1093/jeb/voae097>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9073>

Publication Date: 2024-08



Author(s): SHARMA, ANKITA; DSILVA, GREG JUDE; DESHPANDE, GIRISH; GALANDE, SANJEEV

Title: Exploring the versatility of zygotic genome regulators: A comparative and functional analysis

Citation: Cell Reports, 43(09), 114680.

Publisher: Elsevier B.V.

URI: <https://doi.org/10.1016/j.celrep.2024.114680>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9067>

Publication Date: 2024-09

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Author(s): SWAMINATHAN, UMA; PUCADYIL, THOMAS J.

Title: Reconstituting membrane fission using a high content and throughput assay

Citation: Biochemical Society Transactions, 52(03), 1449-1457.

Publisher: Portland Press

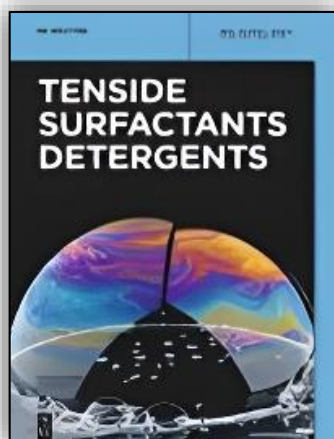
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DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9087>

Publication Date: 2024-06

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## CHEMISTRY



Author(s): Chavan, Akshaya Ravindra; BHAGWAT, SUNIL S.

Title: The effect of addition of sodium hexadecyl sulfate on the performance properties of lauramidopropyl betaine

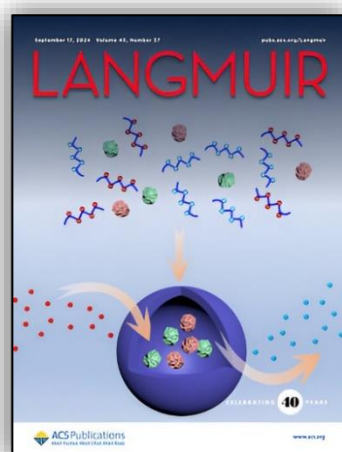
Citation: Tenside Surfactants Detergents.

Publisher: De Gruyter

URI: <https://doi.org/10.1515/tsd-2024-2586>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9102>

Publication Date: 2024-09



Author(s): HARIDAS, AKSHAY; MONDAL, RITWIK; NAYAK, BHOJKUMAR; THOTIYL, MUSTHAFA OTTAKAM

Title: Reductive Inner-Sphere Electrosynthesis of Ammonia via a Nonelectrocatalytic Outer-Sphere Redox

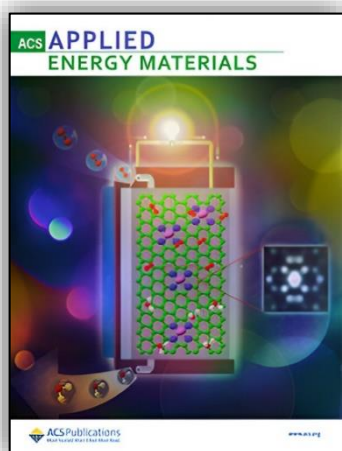
Citation: Langmuir, 40(37), 19458-19466.

Publisher: American Chemical Society

URI: <https://doi.org/10.1021/acs.langmuir.4c01836>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9089>

Publication Date: 2024-09



Author(s): KANADE, SANDEEP C.; MUKHOPADHYAY, SANCHAYITA; NAYAK, BHOJKUMAR; GAUTAM, MANU; Kale, Bharat B.; Gambhire, Anil B.; THOTIYL, MUSTHAFA OTTAKAM

Title: Dual Carbide Heterostructure Interface Mimicking Noble Metal-Like Activity for Reversible Dioxygen Catalysis in Rechargeable Air Batteries

Citation: ACS Applied Energy Materials.

Publisher: American Chemical Society

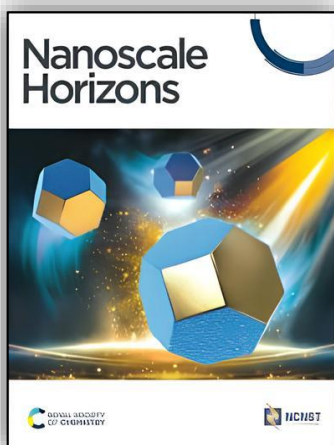
URI: <https://doi.org/10.1021/acsaem.4c01499>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9095>

Publication Date: 2024-09

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Author(s): Mutadak, Pallavi; Vedpathak, Amol; WARULE, SAMBHAJI; Chaudhari, Nilima; Sartale, Shrikrishna; More, Mahendra; Late, Dattatray J.

Title: Surface modification of a biomass-derived self-supported carbon nano network as an emerging platform for advanced field emitter devices and supercapacitor applications

Citation: Nanoscale Horizons.

Publisher: Royal Society of Chemistry

URI: <https://doi.org/10.1039/D4NH00314D>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9104>

Publication Date: 2024-09



Author(s): SAHOO, SUPRIYA; DEKA, NILOTPAL; PANDAY, RISHUKUMAR; BOOMISHANKAR, RAMAMOORTHY

Title: Metal-free small molecule-based piezoelectric energy harvesters

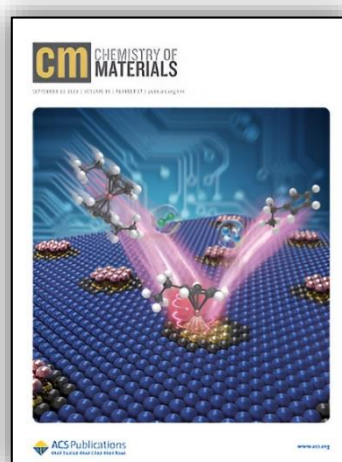
Citation: Chemical Communications.

Publisher: Royal Society of Chemistry

URI: <https://doi.org/10.1039/D4CC03939D>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9105>

Publication Date: 2024-09



Author(s): SHEKHAR, PRAGALBH; SINGH, HIMAN DEV; KUSHWAHA, RINKU; RASE, DEEPAK; JAIN, CHITVAN; SINGH, PIYUSH; SINGH, YASHRAJ; VAIDHYANATHAN, RAMANATHAN et al.

Title: Resorcinol-Azodianiline Covalent Organic Framework Supported FeOOH Quantum Dot-Catalyzed Electrochemical Ammonia Synthesis under Ambient Conditions

Citation: Chemistry of Materials, 36(17), 8229-8238.

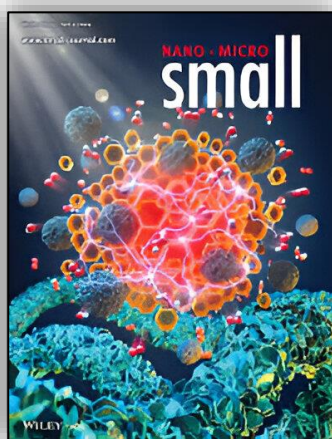
Publisher: American Chemical Society

URI: <https://doi.org/10.1021/acs.chemmater.4c00859>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9094>

Publication Date: 2024-08

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Author(s): RAJPUT, PARIKSHIT KUMAR; SALUNKHE, PARASHURAMA; SARMA, MANMAYURI; BASU, MEGHASREE; Gopal, Animesh; Joshi, Aprajita; SHINGOTE, AJINKYA SUNDARNATH; Saha, Surajit; RAHMAN, ATIKUR; NAG, ANGSUMAN

Title: Entropy-Driven Reversible Melting and Recrystallization of Layered Hybrid Perovskites

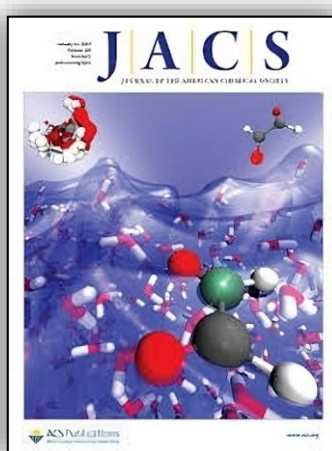
Citation: Small

Publisher: Wiley

URI: <https://doi.org/10.1002/sml.202406735>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9078>

Publication Date: 2024-09



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

Title: Diverse Functionality of Molecular Germanium: Emerging Opportunities as Catalysts

Citation: Journal of the American Chemical Society, 146(35), 24209-24232.

Publisher: American Chemical Society

URI: <https://doi.org/10.1021/jacs.4c05498>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9072>

Publication Date: 2024-08



Author(s): Wenger, Elliott S.; SIL, DEBANGSU et al.

Title: Optimized Substrate Positioning Enables Switches in the C-H Cleavage Site and Reaction Outcome in the Hydroxylation-Epoxidation Sequence Catalyzed by Hyoscyamine 6 $\beta$ -Hydroxylase

Citation: Journal of the American Chemical Society, 146(35), 24271-24287.

Publisher: American Chemical Society

URI: <https://doi.org/10.1021/jacs.4c04406>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9074>

Publication Date: 2024-08

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## MATHEMATICS



Author(s): CHORWADWALA, ANISA

Title: We are what we think we are!

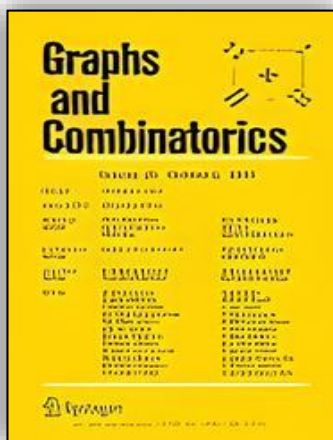
Citation: Blackboard, 7, 109-114.

Publisher: Mathematics Teachers' Association (India)

URI: <https://www.mtai.org.in/wp-content/uploads/2024/09/blackboard-issue-7.pdf>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9109>

Publication Date: 2024-08



Author(s): Akhtar, Yasmeen; MAITY, SOUMEN

Title: Covering Array on the Cartesian Product of Hypergraphs

Citation: Graphs and Combinatorics, 40, 87.

Publisher: Springer Nature

URI: <https://doi.org/10.1007/s00373-024-02813-5>

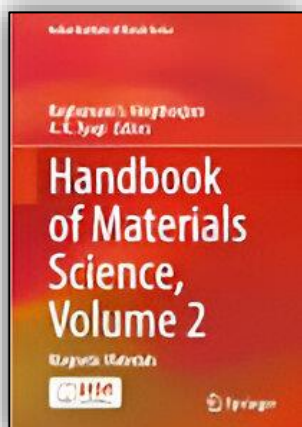
DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9110>

Publication Date: 2024-07

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## PHYSICS

## Book Chapter



Author(s): VERMA, SEEMA

Title: Magnetic Materials: Fundamentals and Applications

Citation: Handbook of Materials Science, Volume 2, 21-58.

Publisher: Springer Nature

URI: [https://doi.org/10.1007/978-981-97-4646-0\\_2](https://doi.org/10.1007/978-981-97-4646-0_2)

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9101>

Publication Date: 2024-08

## Journals Articles



Author(s): ACHARYA, S.; ALPANA, A.; DUBE, SOURABH; GOMBER; KANSAL, B.; LAHA, A.; SAHU, B.; SHARMA, SEEMA; VAISH, K.Y. et al

Title: Search for long-lived particles using displaced vertices and missing transverse momentum in proton-proton collisions at  $\sqrt{s}=13$  TeV

Citation: Physical Review D, 109(11).

Publisher: American Physical Society

URI: <https://doi.org/10.1103/PhysRevD.109.112005>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9082>

Publication Date: 2024-06



Author(s): CMS COLLABORATION; HAYRAPETYAN, A.; ACHARYA, S.; ALPANA, A.; DUBE, SOURABH; GOMBER, B.; HAZARIKA, P.; KANSAL, B.; LAHA, A.; SAHU, B.; SHARMA, SEEMA; VAISH, K. Y. et al.

Title: Observation of the  $J/\psi \rightarrow \mu^+ \mu^- \mu^+ \mu^-$  decay in proton-proton collisions at  $\sqrt{s}=13$  TeV

Citation: Physical Review D, 109(11), L111101.

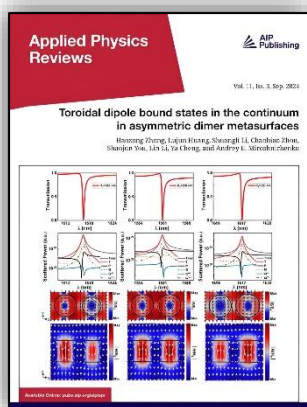
Publisher: American Physical Society

URI: <https://doi.org/10.1103/PhysRevD.109.L111101>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9084>

Publication Date: 2024-06

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Author(s): GODBOLE, RHUSHIKESH; HIWASE, SHWETA; Hossain, Mujaffar; KADAM, SUPRIYA; WABLE, MINAL; Rane, Sunit; Mondal, Sukanta; Das, Bidisa; Banerjee, Abhik; OGALE, SATISHCHANDRA

Title: Light element (B, N) co-doped graphitic films on copper as highly robust current collectors for anode-free Li metal battery applications

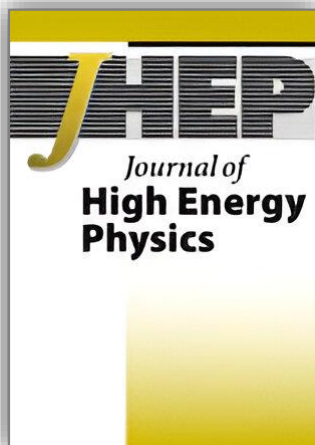
Citation: Applied Physics Reviews, 11(03), 031416.

Publisher: AIP Publishing

URI: <https://doi.org/10.1063/5.0208785>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9081>

Publication Date: 2024-09



Author(s): JAIN, SACHIN; DHARUVA, K. S.; MAZUMDAR, DEEP; YADAV, SHIVANG

Title: A foray on SCFT<sub>3</sub> via super spinor-helicity and Grassmann twistor variables

Citation: Journal of High Energy Physics, 2024(09), 27.

Publisher: AIP Publishing

URI: [https://doi.org/10.1007/JHEP09\(2024\)027](https://doi.org/10.1007/JHEP09(2024)027)

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9090>

Publication Date: 2024-09



Author(s): KUMAR, G V PAVAN

Title: A Forgotten Pioneer of Climate Change Research

Citation: The India Forum

Publisher: The India Forum

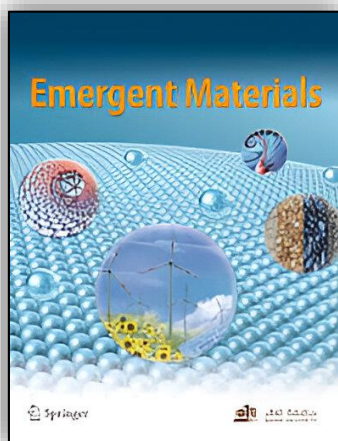
URI: <https://www.theindiaforum.in/history/forgotten-pioneer-climate-change-research>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9069>

Publication Date: 2024-06

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Author(s): Patra, Soumyabrata; Patro, Pankaj; GUPTA, PANKAJ; SINGH, SURJEET; Singh, Ajay

Title: Harvesting low grade waste heat through environment friendly n-Ag<sub>2</sub>Se/p-MgAgSb based thermoelectric module

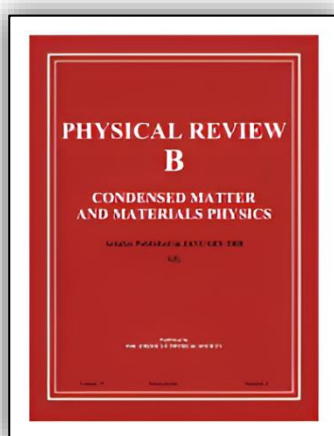
Citation: Emergent Materials.

Publisher: Springer Nature

URI: <https://doi.org/10.1007/s42247-024-00841-8>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9108>

Publication Date: 2024-09



Author(s): PISTAWALA, NASHRA; HARNAGEA, LUMINITA; RAMAKRISHNAN, SITARAM; Tiwari, Priyanshi; Saravanan, M. P.; Rawat, Rajeev; SINGH, SURJEET

Title: Anisotropic magnetic ground state of single-crystalline quasi-two-dimensional honeycomb antiferromagnet YbI<sub>3</sub>

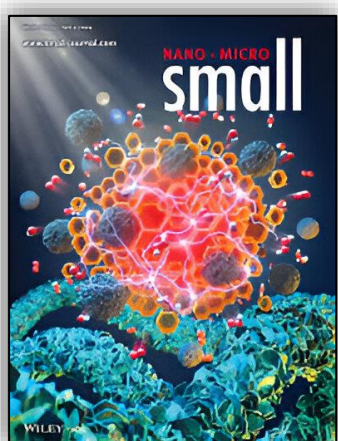
Citation: Physical Review B, 110(10), 104421.

Publisher: American Physical Society

URI: <https://doi.org/10.1103/PhysRevB.110.104421>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9106>

Publication Date: 2024-09



Author(s): RAJPUT, PARIKSHIT KUMAR; SALUNKHE, PARASHURAMA; SARMA, MANMAYURI; BASU, MEGHASREE; Gopal, Animesh; Joshi, Aprajita; SHINGOTE, AJINKYA SUNDARNATH; Saha, Surajit; RAHMAN, ATIKUR; NAG, ANGSUMAN

Title: Entropy-Driven Reversible Melting and Recrystallization of Layered Hybrid Perovskites

Citation: Small

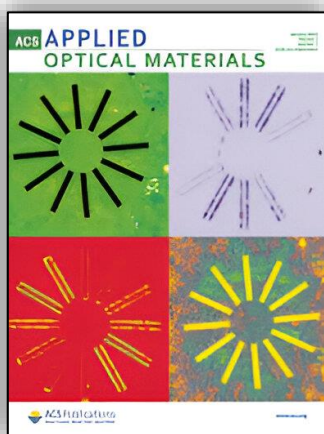
Publisher: Wiley

URI: <https://doi.org/10.1002/sml.202406735>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9078>

Publication Date: 2024-09

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Author(s): RANI, CHAUDHARY EKSHA; CHAND, RAHUL; SHUKLA, ASHUTOSH; KUMAR, G V PAVAN

Title: Evanescent Optothermoelectric Trapping: Deeper Potentials at a Largescale

Citation: ACS Applied Optical Materials, 2(9), 1872-1879.

Publisher: American Chemical Society

URI: <https://doi.org/10.1021/acsaom.4c00290>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9068>

Publication Date: 2024-09



Author(s): Vijaykumar, Aditya; Fishbach, Maya; ADHIKARI, SUSMITA; Holz, Daniel E.

Title: Inferring Host-galaxy Properties of LIGO-Virgo-KAGRA's Black Holes

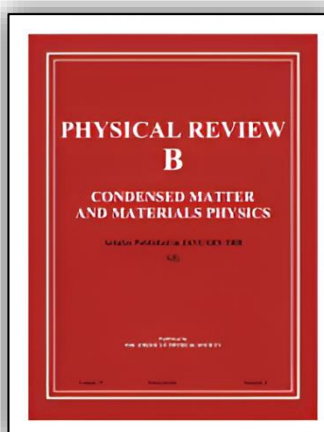
Citation: Astrophysical Journal, 972(02).

Publisher: IOP Publishing

URI: <https://doi.org/10.3847/1538-4357/ad6140>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9079>

Publication Date: 2024-09



Author(s): ROUT, DIBYATA; MUDI, SANCHAYETA RANAJIT; Karmakar, Suman; Rawat, Rajeev; SINGH, SURJEET

Title: Investigating the cause of crossover from charge/spin-stripe insulator to correlated metallic phase in layered  $T'$  nickelates  $R_4Ni_3O_8$  ( $R=La,Pr,orNd$ )

Citation: Physical Review B, 110(09), 094412.

Publisher: American Physical Society

URI: <https://doi.org/10.1103/PhysRevB.110.094412>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9107>

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