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February 2025



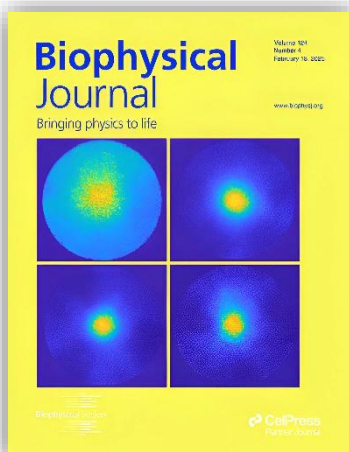
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<u>Chemistry</u>	3
<u>Mathematics</u>	8
<u>Physics</u>	9

BIOLOGY

Journal Articles



Author(s): BASU, JASHASWII; SONI, AMAN; ATHALE, CHAITANYA A.

Title: Physical effects of crowding size and concentration on collective microtubule polymerization

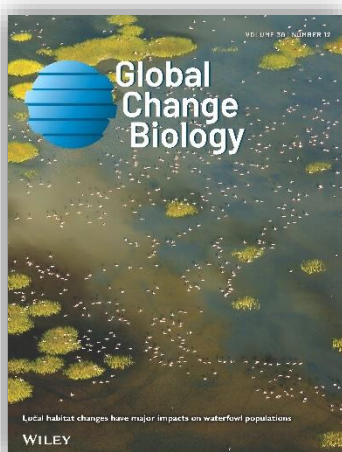
Citation: Biophysical Journal.

Publisher: Elsevier B.V.

URI: <https://doi.org/10.1016/j.bpj.2025.01.020>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9351>

Publication Date: 2025-01



Author(s): JAVAD, AKHIL; PREMUGH, VIKHYATH; Tiwari, Rakesh; BANDARU, PEDDIRAJU; SUNNY, RON; Hegde, Balachandra; Clerici, Santiago; Galbraith, David; Gloor, Manuel; BARUA, DEEPAK

Title: Leaf Temperatures in an Indian Tropical Forest Exceed Physiological Limits but Durations of Exposures Are Currently Not Sufficient to Cause Lasting Damage

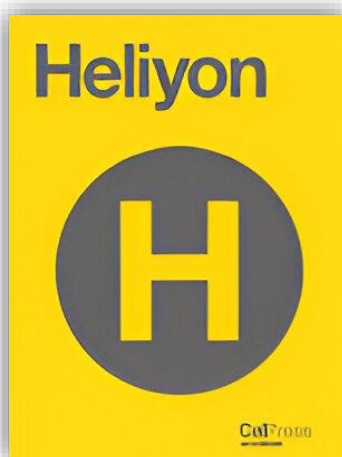
Citation: Global Change Biology, 32(02).

Publisher: Wiley

URI: <https://doi.org/10.1111/gcb.70069>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9348>

Publication Date: 2025-02



Author(s): Matra, Sejal; KADAM, PRADNYA; TUPEKAR, MANISHA; KARMODIYA, KRISHANPAL et al.

Title: Wastewater surveillance of open drains for mapping the trajectory and succession of SARS-CoV-2 lineages in 23 cities of Maharashtra State (India) during June 2022 to May 2023

Citation: Heliyon, 11(04).

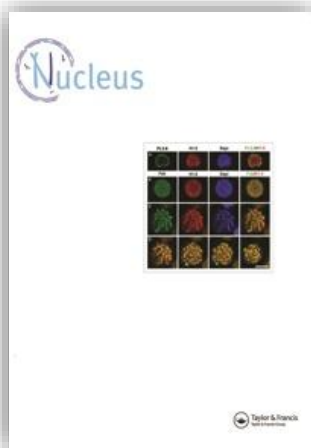
Publisher: Elsevier B.V.

URI: <https://doi.org/10.1016/j.heliyon.2025.e42534>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9335>

Publication Date: 2025-02

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Author(s): NAIR, ANJITHA; KHANNA, JAYATI; KLER, JASHAN; RAGESH, ROHITH; SENGUPTA, KUNDAN

Title: Nuclear envelope and chromatin choreography direct cellular differentiation

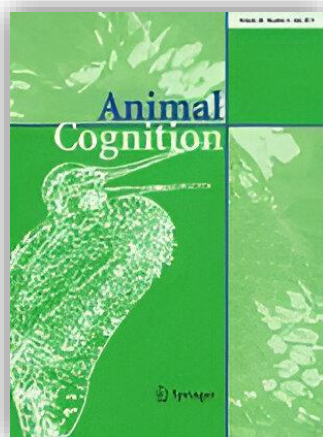
Citation: Nucleus, 16(01).

Publisher: Taylor & Francis

URI: <https://doi.org/10.1080/19491034.2024.2449520>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9338>

Publication Date: 2025-01



Author(s): Roy, Anamitra; MANCHALWAR, AAYUSH et al.

Title: Ready, set, yellow! color preference of Indian free-ranging dogs

Citation: Animal Cognition, 28.

Publisher: Springer Nature

URI: <https://doi.org/10.1007/s10071-024-01928-9>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9271>

Publication Date: 2025-01

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CHEMISTRY

Journal Articles



Author(s): ANAND, SAURABH; Bandyopadhyay, Sucheta; BHOGE, PREETI RAVINDRA; TORASKAR, SURAJ; Kalia, Jeet; KIKKERI, RAGHAVENDRA

Title: Activation of the Voltage-Gated Potassium Channel by Amphiphilic Glycopeptides

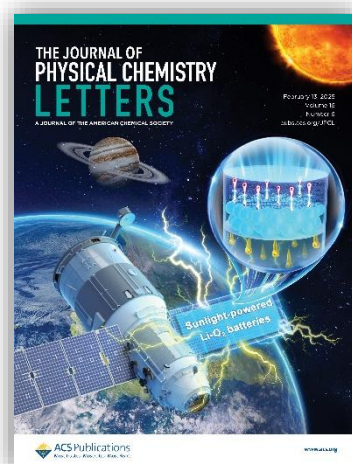
Citation: Chemistry-A European Journal.

Publisher: Wiley

URI: <https://doi.org/10.1002/chem.202403943>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9339>

Publication Date: 2025-01



Author(s): CHATTERJEE, JOY; TANWAR, RITEEKA; ANUPAMA, S.; CHATTERJEE, ABHIJIT; Ambhore, Madan D.; KABIR, MUKUL; MANDAL, PANKAJ; HAZRA, PARTHA

Title: Controlling Triplet-Harvesting Pathways and Nonlinear Optical Properties in Cu(I) Iodide-Based Polymers through Ligand Engineering

Citation: Journal of Physical Chemistry Letters, 16(06), 1549-1558.

Publisher: American Chemical Society

URI: <https://doi.org/10.1021/acs.jpcllett.4c03267>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9336>

Publication Date: 2025-01



Author(s): GUPTA, SIMRAN M.; MOHITE, PRATIKSHA S.; CHAKRAPANI, HARINATH

Title: Mercapto-NSAIDs generate a non-steroidal anti-inflammatory drug (NSAID) and hydrogen sulfide

Citation: Chemical Science.

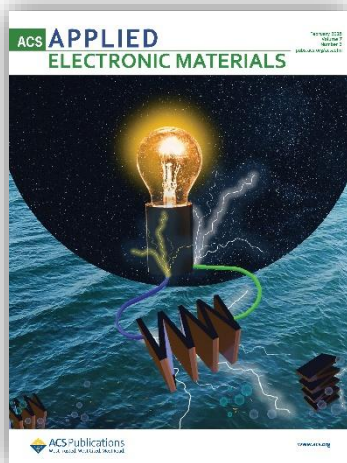
Publisher: Royal Society of Chemistry

URI: <https://doi.org/10.1039/D4SC08525F>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9340>

Publication Date: 2025-02

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Author(s): Jena, Lalit Kumar; Chahal, Sumit; SAHOO, SUPRIYA; BOOMISHANKAR, RAMAMOORTHY; Asthana, Saket

Title: Energy Storage and Harvesting Potential of Eco-Friendly Ca-Substituted $\text{Ba}_{0.8}\text{Sr}_{0.2}\text{TiO}_3/\text{PVDF}$ Ferro-Flexible Composite Films

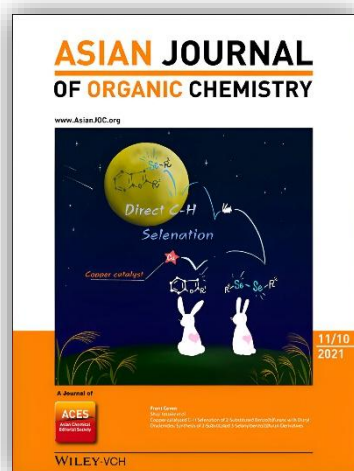
Citation: ACS Applied Electronic Materials.

Publisher: American Chemical Society

URI: <https://doi.org/10.1021/acsaelm.4c02336>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9356>

Publication Date: 2025-01



Author(s): LONDHE, GOKUL; Bokade, Vijay; GNANAPRAKASAM, BOOPATHY

Title: Continuous Flow β -Zeolite Catalysed Regioselective Alkylation of Naphthols Using Alcohols for Synthesis of Peroxynaphthalen-2(1H)-one, Azidonaphthalen-2(1H)-one and Fluoronaphthalen-2(1H)-one Derivatives

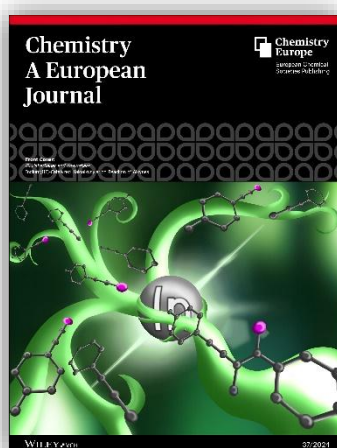
Citation: Asian Journal of Organic Chemistry.

Publisher: Wiley

URI: <https://doi.org/10.1002/ajoc.202400658>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9341>

Publication Date: 2025-01



Author(s): Mandal, Rimpa; Ninawe, Pranay; Acharya, Aradhana; Ballav, Nirmalya

Title: Spin-Frustrated Metal-Organic Frameworks

Citation: Chemistry—A European Journal, 31(10).

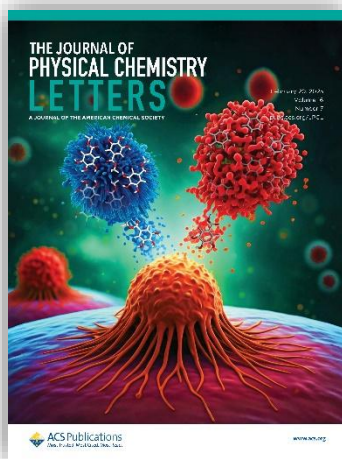
Publisher: Wiley

URI: <https://doi.org/10.1002/chem.202403615>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9353>

Publication Date: 2025-01

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Author(s): MANDAL, SOURAV; KUMAR, SATISH; METYA, SURAJIT; SINGH, MANJEET; DAS, ALOKE

Title: Observation of a Crossed Double B-Turn in a Capped ^DPro-Gly-Ala Tripeptide: One-to-One Correspondence between X-ray Crystallography, 2D-NMR, and Gas-Phase Laser Spectroscopy

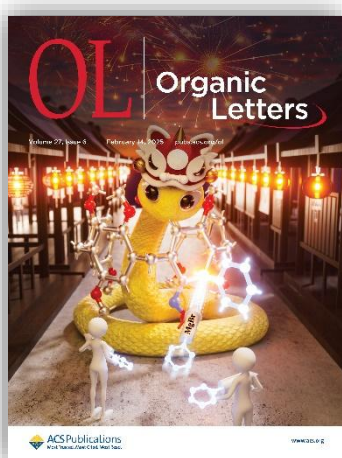
Citation: Journal of Physical Chemistry Letters, 16(07), 1729-1738.

Publisher: American Chemical Society

URI: <https://doi.org/10.1021/acs.jpcllett.5c00003>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9350>

Publication Date: 2025-02



Author(s): MONDAL, SHANKHAJIT; MALODE, AKHILESH NARENDRA; LONDHE, GOKUL S.; GNANAPRAKASAM, BOOPATHY

Title: Visible Light-Induced Sequential Nitrogen Insertion and Benzotriazolation of Quinoxaline-2(1*H*)-ones

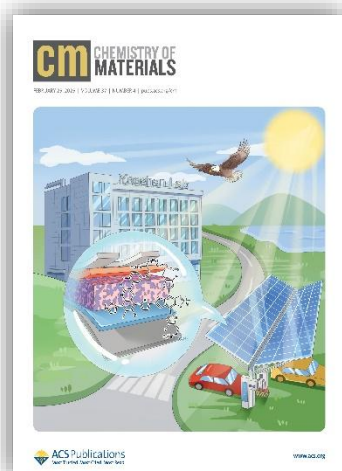
Citation: Organic Letters, 27(06), 1465-1469.

Publisher: American Chemical Society

URI: <https://doi.org/10.1021/acs.orglett.4c04834>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9386>

Publication Date: 2025-02



Author(s): KUMAR, ANKIT; VISHAK, SIVASUBRAMANIYAN S.; Das, Anustoop; Biswas, Kanishka; GHOSH, PRASENJIT; SINGH, SURJEET

Title: Entropy-Stabilized Half-Heuslers (TiHf)_{1/2}(Fe_{1-x}CoNi_{1+x})_{1/3}Sb with Highly Reduced Lattice Thermal Conductivity

Citation: Chemistry of Materials, 37(04), 1370-1381.

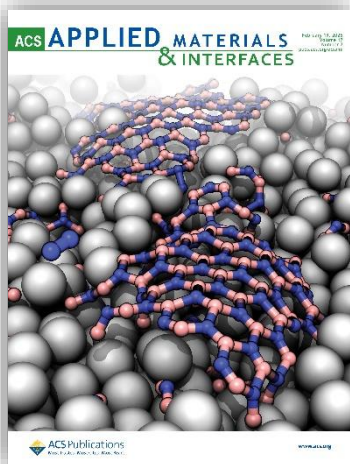
Publisher: American Chemical Society

URI: <https://doi.org/10.1021/acs.chemmater.4c02094>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9355>

Publication Date: 2025-02

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Author(s): MAJUMDER, SUDIPTA; LOHKNA, SARIKA; WALVE, VAIBHAV; CHAND, RAHUL; ANILKUMAR, GOKUL M.; Hwang, Sooyeon; KUMAR, G. V. PAVAN; DESHPANDE, APARNA; GHOSH, PRASENJIT; RAHMAN, ATIKUR

Title: Unveiling the Correlation between Defects and High Mobility in MoS₂ Monolayers

Citation: ACS Applied Materials & Interfaces, 17(07), 10942-10953.

Publisher: American Chemical Society

URI: <https://doi.org/10.1021/acsami.4c18552>

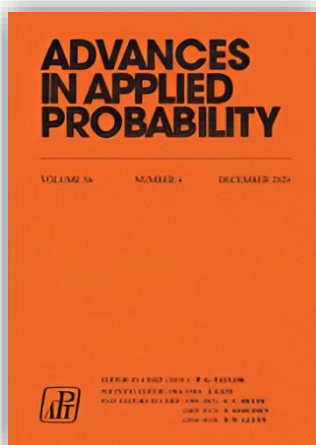
DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9336>

Publication Date: 2025-02

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MATHEMATICS

Journal Article



Author(s): Karmakar, Sayar; PODDER, MOUMANTI; Roy, Souvik; Sadhukhan, Soumyarup

Title: The spread of an epidemic: a game-theoretic approach

Citation: Advances in Applied Probability.

Publisher: Cambridge University Press

URI: <https://doi.org/10.1017/apr.2024.64>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9332>

Publication Date: 2025-01

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PHYSICS

Journal Articles



Author(s): ANANTH, SUDARSHAN; BHAVE, NIPUN

Title: Exceptional symmetries in light-cone superspace

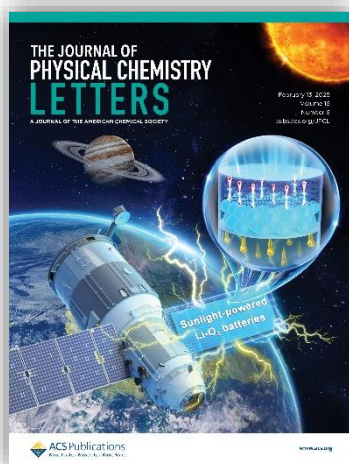
Citation: Journal of High Energy Physics, 2025(02), 203.

Publisher: Springer Nature

URI: [https://doi.org/10.1007/JHEP02\(2025\)203](https://doi.org/10.1007/JHEP02(2025)203)

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9390>

Publication Date: 2025-02



Author(s): CHATTERJEE, JOY; TANWAR, RITEEKA; ANUPAMA, S.; CHATTERJEE, ABHIJIT; Ambhore, Madan D.; KABIR, MUKUL; MANDAL, PANKAJ; HAZRA, PARTHA

Title: Controlling Triplet-Harvesting Pathways and Nonlinear Optical Properties in Cu(I) Iodide-Based Polymers through Ligand Engineering

Citation: Journal of Physical Chemistry Letters, 16(06), 1549-1558.

Publisher: American Chemical Society

URI: <https://doi.org/10.1021/acs.jpcllett.4c03267>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9336>

Publication Date: 2025-01



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: Search for bottom quark associated production of the standard model Higgs boson in final states with leptons in proton-proton collisions at $\sqrt{s}=13$ TeV

Citation: Physics Letters B, 860, 139173.

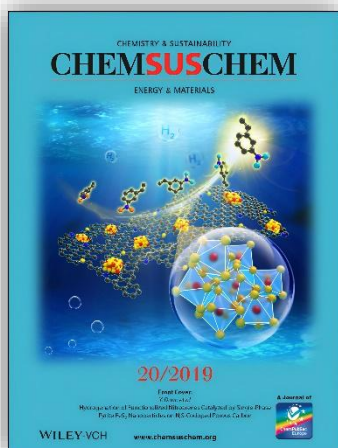
Publisher: Elsevier B.V.

URI: <https://doi.org/10.1016/j.physletb.2024.139173>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9345>

Publication Date: 2025-01

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Author(s): GHOGARE, TRUPTI; PATIL, INDRAJIT; Hossain, Mujaffar; BOBADE, RICHA; Mondal, Sukanta; Varma, Su; Das, Bidisa; OGALE, SATISHCHANDRA

Title: Earth-Abundant 3d-Transition Metal Metasilicates As Effective Electrocatalysts For Alkaline HER: CuZnSiO_3 Outperforms CuSiO_3 and ZnSiO_3

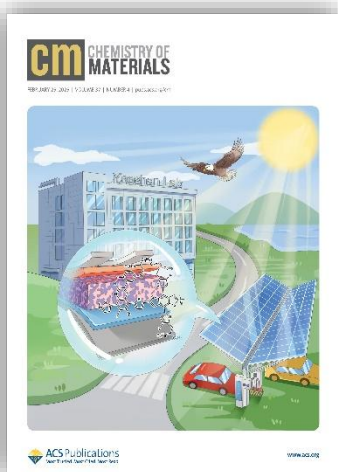
Citation: ChemSusChem.

Publisher: Wiley

URI: <https://doi.org/10.1002/cssc.202402043>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9330>

Publication Date: 2024-12



Author(s): KUMAR, ANKIT; VISHAK, SIVASUBRAMANIYAN S.; Das, Anustoop; Biswas, Kanishka; GHOSH, PRASENJIT; SINGH, SURJEET

Title: Entropy-Stabilized Half-Heuslers $(\text{TiHf})_{1/2}(\text{Fe}_{1-x}\text{CoNi}_{1+x})_{1/3}\text{Sb}$ with Highly Reduced Lattice Thermal Conductivity

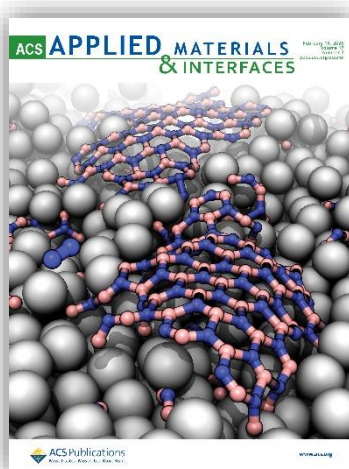
Citation: Chemistry of Materials, 37(04), 1370-1381.

Publisher: American Chemical Society

URI: <https://doi.org/10.1021/acs.chemmater.4c02094>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9355>

Publication Date: 2025-02



Author(s): MAJUMDER, SUDIPTA; LOHKNA, SARIKA; WALVE, VAIBHAV; CHAND, RAHUL; ANILKUMAR, GOKUL M.; Hwang, Sooyeon; KUMAR, G. V. PAVAN; DESHPANDE, APARNA; GHOSH, PRASENJIT; RAHMAN, ATIKUR

Title: Unveiling the Correlation between Defects and High Mobility in MoS_2 Monolayers

Citation: ACS Applied Materials & Interfaces, 17(07), 10942-10953.

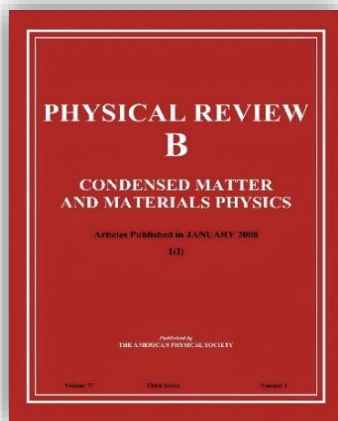
Publisher: American Chemical Society

URI: <https://doi.org/10.1021/acsami.4c18552>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9336>

Publication Date: 2025-02

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Author(s): Purkait, Suvankar; Maiti, Tanmay; Agarwal, Pooja; Sahoo, Suparna; SREEJITH, G. J.; Das, Sourin; Biasiol, Giorgio; Sorba, Lucia; Karmakar, Biswajit

Title: Edge reconstruction of a compressible quantum Hall fluid in the filling fraction range $1/3$ to $2/3$

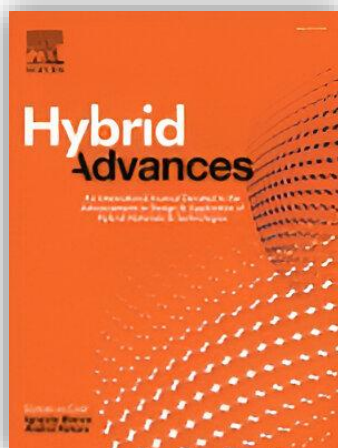
Citation: Physical Review B, 110, 245309.

Publisher: American Physical Society

URI: <https://doi.org/10.1103/PhysRevB.110.245309>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9352>

Publication Date: 2024-12



Author(s): Sangwan, Priyanka; Upadhyay, Naval Kishor; Shyam, Radhey; GUPTA, PANKAJ; Kumar, Harsh; SINGH, SURJEET; Pandey, Akhilesh; Muthiah, Saravanan

Title: Hybrid composite approach enhancing the thermoelectric performance of p-type iron-silicide synthesized by the arc melting-spark plasma sintering technique

Citation: Hybrid Advances, 9, 100423.

Publisher: Elsevier B.V.

URI: <https://doi.org/10.1016/j.hybadv.2025.100423>

DR URI: <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/9343>

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