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Monthly Bulletin of Publications:
Faculty, Scientists and Students of IISER Pune.
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BIOLOGY

Author(s) BARVE, APURVA; Galande, Alisha A.; Ghaskadbi, Saroj S.; Ghaskadbi, Surendra
Title DNA Repair Repertoire of the Enigmatic Hydra
Citation Frontiers in Genetics.
Publisher Frontiers Media S.A.
URI <https://doi.org/10.3389/fgene.2021.670695>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5883>
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Author(s) BHATIA, SANDHYA; Krishnamoorthy, Guruswamy; UDGAONKAR, JAYANT B.
Title Resolving Site-Specific Heterogeneity of the Unfolded State under Folding Conditions
Citation Journal of Physical Chemistry Letters, 12(13), 3295-3302.
Publisher American Chemical Society
URI <https://doi.org/10.1021/acs.jpcllett.1c00098>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5884>
Date of Publication 2021-04

Author(s) Joshi, Poorva; DAHANUKAR, NEELESH; Bharade, Shankar; Dethe, Vijay; DETHE, SMITA; Bhandare, Neha; Watve, Milind
Title Combining payment for crop damages and reward for productivity to address wildlife conflict
Citation Conservation Biology.
Publisher Wiley
URI <https://doi.org/10.1111/cobi.13746>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5866>
Date of Publication 2021-04

Author(s) Jia, Tony Z.; BAPAT, NIRAJA, V.; VERMA, AJAY; Mamajanov, Irena; Cleaves, H. James, II; Chandru, Kuhan
Title Incorporation of Basic α -Hydroxy Acid Residues into Primitive Polyester Microdroplets for RNA Segregation
Citation Biomacromolecules, 22(4), 1484-1493.
Publisher American Chemical Society
URI <https://doi.org/10.1021/acs.biomac.0c01697>
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Author(s) PILLAI, ANIRUDH; GUNGI, AKHILA; REDDY, PULI CHANDRAMOULI; GALANDE, SANJEEV
Title Epigenetic Regulation in Hydra: Conserved and Divergent Roles
Citation Frontiers in Cell and Developmental Biology, 9.
Publisher Frontiers Media S.A.
URI <https://doi.org/10.3389/fcell.2021.663208>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5907>
Date of Publication 2021-05

Author(s) Riyas, Abdul; DAHANUKAR, NEELESH; Krishnan, Anoop; Kumar, Appukuttannair Biju
Title Scyphozoan jellyfish blooms and their relationship with environmental factors along the South-eastern Arabian Sea
Citation Marine Biology Research.
Publisher Taylor & Francis
URI <https://doi.org/10.1080/17451000.2021.1916034>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5911>
Date of Publication 2021-05

CHEMISTRY

Author(s) CHOWDHURY, RITUPARNO; ADURY, VENKATA SAI SREYAS; VIJAY, AMAL; SINGH, REMAN K.; MUKHERJEE, ARNAB
Title Atomistic De-novo Inhibitor Generation-Guided Drug Repurposing for SARS-CoV-2 Spike Protein with Free Energy Validation by Well-Tempered Metadynamics
Citation Chemistry-An Asian Journal.
Publisher Wiley
URI <https://doi.org/10.1002/asia.202100268>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5900>
Date of Publication 2021-05

Author(s) Gallarati, Simone; Fabregat, Raimon; Laplaza, Ruben; BHATTACHARJEE, SINJINI; Wodrich, Matthew D.; Corminboeuf, Clemence
Title Reaction-based machine learning representations for predicting the enantioselectivity of organocatalysts
Citation Chemical Science, 12(20), 6879-6889.
Publisher Royal Society of Chemistry
URI <https://doi.org/10.1039/D1SC00482D>
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Author(s) PARVIN, NASRINA; SEN, NILANJANA; Muhasina, Puthan Veetil; Tothadi, Srinu; Parameswaran, Pattiyil; KHAN, SHABANA
Title The diverse reactivity of NOBF₄ towards silylene, disilene, germylene and stannylene
Citation Chemical Communications, 57(41), 5008-5011.
Publisher Royal Society of Chemistry
URI <https://doi.org/10.1039/d1cc01034d>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5867>
Date of Publication 2021-05

Author(s) RANA, SHAMMI; BHAND, SUJIT; Balal, Mohammad; PRASOON, ANUPAM; Barman, Sudipta Roy; BALLAV, NIRMALYA
Title Chemistry at the Solid-Gas Interface: Direct Crystalline Thin-Film to Thin-Film Chemical Transformation
Citation Journal of Physical Chemistry C, 125(14), 7728-7733.
Publisher American Chemical Society
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Author(s) SINGH, REMAN KUMAR; MUKHERJEE, ARNAB
Title Molecular Mechanism of the Intercalation of the SOX-4 Protein into DNA Inducing Bends and Kinks
Citation Journal of Physical Chemistry B, 125(15), 3752-3762.
Publisher American Chemical Society
URI <https://doi.org/10.1021/acs.jpcc.0c11496>
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Author(s) WARGHUDE, PRAKASH K.; SABALE, ABHIJEET S.; Dixit, Ruchi; Vanka, Kumar; BHAT, RAMAKRISHNA G.
Title An easy and practical approach to access multifunctional cyclopentadiene- and cyclopentene-spirooxindoles via [3 + 2] annulation
Citation Organic & Biomolecular Chemistry, 19(19), 4338-4345.
Publisher Royal Society of Chemistry
URI <https://doi.org/10.1039/D1OB00514F>
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MATHEMATICS

Author(s) Becher, Karim Johannes; GUPTA, PARUL
Title Strong linkage for function fields of surfaces
Citation Manuscripta Mathematica.
Publisher Springer Nature
URI <https://doi.org/10.1007/s00229-021-01301-x>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5879>
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Author(s) Krishna Das, B.; SAU, HARIPADA
Title Algebraic Properties of Toeplitz Operators on the Symmetrized Polydisk
Citation Complex Analysis and Operator Theory, 15(3).
Publisher Springer Nature
URI <https://doi.org/10.1007/s11785-021-01108-4>
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PHYSICS

Author(s) Abbott, R.; RAPOL, UMAKANT D.; SOURADEEP, TARUN et al.
Title All-sky search in early O3 LIGO data for continuous gravitational-wave signals from unknown neutron stars in binary systems
Citation Physical Review D, 103(6).
Publisher American Physical Society
URI <https://doi.org/10.1103/PhysRevD.103.064017>
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Author(s) Agreda, Adrian; SHARMA, DEEPAK K.; Francs, Gerard Colas des; KUMAR, G. V. PAVAN; Bouhelier, Alexandre
Title Modal and wavelength conversions in plasmonic nanowires
Citation Optics Express, 29(10), 15366-15381.
Publisher Optical Society of America
URI <https://doi.org/10.1364/OE.421183>
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Date of Publication 2021-05

Author(s) BHALERAO, RAJEEV S.
Title Collectivity in large and small systems formed in ultrarelativistic collisions
Citation European Physical Journal Special Topics.
Publisher Springer Nature
URI <https://doi.org/10.1140/epjs/s11734-021-00019-x>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5868>
Date of Publication 2021-04

Author(s) CMS Collaboration; Sirunyan, A. M.; DUBE, SOURABH; KANSAL, B.; PANDEY, S.; RANE, A.; RASTOGI, A.; SHARMA, SEEMA et al.
Title Angular analysis of the decay $B^+ \rightarrow K^*(892)^+ \mu^+ \mu^-$ in proton-proton collisions at $\sqrt{s} = 8$ TeV
Citation Journal of High Energy Physics, 2021(4).
Publisher Springer Nature
URI [https://doi.org/10.1007/JHEP04\(2021\)124](https://doi.org/10.1007/JHEP04(2021)124)
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Title Measurement of b jet shapes in proton-proton collisions at $\sqrt{s} = 5.02$ TeV
Citation Journal of High Energy Physics, 2021(5).
Publisher Springer Nature
URI [https://doi.org/10.1007/JHEP05\(2021\)054](https://doi.org/10.1007/JHEP05(2021)054)
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Author(s) CMS Collaboration; Sirunyan, A. M.; DUBE, SOURABH; KANSAL, B.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; RASTOGI, A.; SHARMA, SEEMA et al.

Title Development and validation of HERWIG γ tunes from CMS underlying-event measurements

Citation European Physical Journal C, 81(4).

Publisher Springer Nature

URI <https://doi.org/10.1140/epjc/s10052-021-08949-5>

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Date of Publication 2021-04

Author(s) CMS Collaboration; Sirunyan, A. M.; DUBE, SOURABH; KANSAL, B.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; RASTOGI, A.; SHARMA, SEEMA et al.

Title Measurement of prompt D^0 and D^{-0} meson azimuthal anisotropy and search for strong electric fields in PbPb collisions at $\sqrt{s_{NN}} = 5.02$ TeV

Citation Physics Letters B, 816.

Publisher Elsevier B.V.

URI <https://doi.org/10.1016/j.physletb.2021.136253>

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Author(s) CMS Collaboration; Sirunyan, A. M.; DUBE, SOURABH; KANSAL, B.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; RASTOGI, A.; SHARMA, SEEMA et al.

Title Measurement of the CP-violating phase ϕ_s in the B_s^0 at root $s=13$ TeV $s \rightarrow J/\psi \phi(1020) \rightarrow \mu^+ \mu^- K^+ K^-$ channel in proton-proton collisions at $\sqrt{s}=13$ TeV

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Author(s) CMS Collaboration; Sirunyan, A. M.; DUBE, SOURABH; KANSAL, B.; PANDEY, S.; RANE, A.; RASTOGI, A.; SHARMA, SEEMA et al.

Title Erratum to: Search for dark matter produced in association with a leptonically decaying Z boson in proton-proton collisions at $\sqrt{s}=13$ TeV

Citation European Physical Journal C, 81(4).

Publisher Springer Nature

URI <https://doi.org/10.1140/epjc/s10052-021-08959-3>

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Author(s) CMS Collaboration; Sirunyan, A. M.; DUBE, SOURABH; KANSAL, B.; PANDEY, S.; RANE, A.; RASTOGI, A.; SHARMA, SEEMA et al.
Title Measurement of differential cross sections for Z bosons produced in association with charm jets in pp collisions at $\sqrt{s} = 13$ TeV
Citation Journal of High Energy Physics, 2021(4).
Publisher Springer Nature
URI [https://doi.org/10.1007/JHEP04\(2021\)109](https://doi.org/10.1007/JHEP04(2021)109)
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Author(s) CMS Collaboration; Sirunyan, A. M.; DUBE, SOURABH; KANSAL, B.; PANDEY, S.; RANE, A.; RASTOGI, A.; SHARMA, SEEMA et al.
Title Search for supersymmetry in final states with two oppositely charged same-flavor leptons and missing transverse momentum in proton-proton collisions at $\sqrt{s} = 13$ TeV
Citation Journal of High Energy Physics, 2021(4).
Publisher Springer Nature
URI [https://doi.org/10.1007/JHEP04\(2021\)123](https://doi.org/10.1007/JHEP04(2021)123)
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5885>
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Author(s) CMS HGCAL collaboration; Acar, B.; PANDEY, S.; SHARMA, SEEMA et al.
Title The DAQ system of the 12,000 channel CMS high granularity calorimeter prototype
Citation Journal of Instrumentation, 16.
Publisher IOP Publishing
URI <https://doi.org/10.1088/1748-0221/16/04/T04001>
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Author(s) CMS HGCAL collaboration; Acar, B.; PANDEY, S.; SHARMA, SEEMA et al.
Title Construction and commissioning of CMS CE prototype silicon modules
Citation Journal of Instrumentation, 16.
Publisher IOP Publishing
URI <https://doi.org/10.1088/1748-0221/16/04/T04002>
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Author(s) DHAR, DEEPAK; Rajesh, R.
Title Entropy of fully packed hard rigid rods on d-dimensional hypercubic lattices
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Publisher American Physical Society
URI <https://doi.org/10.1103/PhysRevE.103.042130>
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Author(s) JAIN, SACHIN; JOHN, RENJAN RAJAN; MALVIMAT, VINAY
Title Constraining momentum space correlators using slightly broken higher spin symmetry
Citation Journal of High Energy Physics, 2021(4).
Publisher Springer Nature
URI [https://doi.org/10.1007/JHEP04\(2021\)231](https://doi.org/10.1007/JHEP04(2021)231)
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Author(s) MANISHA; Naik, Kusha Kumar
Title High electrocatalytic activity of Ag doped MnWO₄ microflowers towards glucose molecules
Citation Journal of Materials Science: Materials in Electronics.
Publisher Springer Nature
URI <https://doi.org/10.1007/s10854-021-06070-7>
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Author(s) NISHAD, NAVEEN; SANTHOSH, M.; SREEJITH, G. J.
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Citation Physical Review B, 103(19).
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Author(s) SEN, ARNAB; MANDAL, S.; Sen, Sanket; BAPAT, BHAS; Gopal, R.; Sharma, V.
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Author(s) SHARMA, GAUTAM; PANDEY, VINEET KUMAR; DATTA, SHOUVIK; GHOSH, PRASENJIT
Title Effect of electron-phonon coupling on the transport properties of monolayers of ZrS₂, BiI₃ and PbI₂: a thermoelectric perspective
Citation Physical Chemistry Chemical Physics, 23(20), 11663-11671.
Publisher Royal Society of Chemistry
URI <https://doi.org/10.1039/D1CP00533B>
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Author(s) TIWARI, SUNNY; TANEJA, CHETNA; KUMAR, G. V. PAVAN
Title Sub-wavelength plasmon polaritons channeling of whispering gallery modes of fluorescent silica microresonator
Citation Materials Research Bulletin, 142.
Publisher Elsevier B.V.
URI <https://doi.org/10.1016/j.materresbull.2021.111412>
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Author(s) Youssefi, Amir; Shomroni, Itay; JOSHI, YASH J.; Bernier, Nathan R.; Lukashchuk, Anton; Uhrich, Philipp; Qiu, Liu; Kippenberg, Tobias J.
Title A cryogenic electro-optic interconnect for superconducting devices
Citation Nature Electronics, 4, 326-332.
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URI <https://doi.org/10.1038/s41928-021-00570-4>
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