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# BIOLOGY

**Author(s)** BANG, ALOK; Courchamp, Franck  
**Title** Industrial rearing of edible insects could be a major source of new biological invasions  
**Citation** Ecology Letters.  
**Publisher** Wiley  
**URI** <https://doi.org/10.1111/ele.13646>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5413>  
**Date of Publication** 2020-11

**Author(s)** BANG, ALOK; Khadakkar, Suvarna  
**Title** Opinion: Biodiversity conservation during a global crisis: Consequences and the way forward  
**Citation** Proceedings of the National Academy of Sciences of the United States of America, 117(48), 29995-29999.  
**Publisher** National Academy of Sciences  
**URI** <https://doi.org/10.1073/pnas.2021460117>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5470>  
**Date of Publication** 2020-12

**Author(s)** Basargekar, Anagha; Yogi, Shweta; Mushtaq, Zeeshan; Deivasigamani, Senthilkumar; Kumar, Vimlesh; RATNAPARKHI, GIRISH S.; Ratnaparkhi, Anuradha  
**Title** Drosophila Mon1 and Rab7 interact to regulate glutamate receptor levels at the neuromuscular junction  
**Citation** International Journal of Developmental Biology, 64, (4-6), 289-297.  
**Publisher** UPV/EHU Press  
**URI** <https://doi.org/10.1387/ijdb.190153ar>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5465>  
**Date of Publication** 2020

**Author(s)** Chandru, Kuhan; Jia, Tony Z.; Mamajanov, Irena; BAPAT, NIRAJA; Cleaves, H. James  
**Title** Prebiotic oligomerization and self-assembly of structurally diverse xenobiological monomers  
**Citation** Scientific Reports, 10(1).  
**Publisher** Springer Nature  
**URI** <https://doi.org/10.1038/s41598-020-74223-5>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5402>  
**Date of Publication** 2020-10

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**Author(s)** DIWEKAR-JOSHI, MANAWA; Watve, Milind  
**Title** Driver versus navigator causation in biology: the case of insulin and fasting glucose  
**Citation** PeerJ.  
**Publisher** PeerJ  
**URI** <https://doi.org/10.7717/peerj.10396>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5416>  
**Date of Publication** 2020-12

**Author(s)** Jodar, Tiffany Ona; Lage-Rupprecht, Vanessa; ABRAHAM, NIXON M.; Rose, Christine R.; Eggør, Veronica  
**Title** Local Postsynaptic Signaling on Slow Time Scales in Reciprocal Olfactory Bulb Granule Cell Spines Matches Asynchronous Release  
**Citation** Frontiers in Synaptic Neuroscience, 12.  
**Publisher** Frontiers Media S.A.  
**URI** <https://doi.org/10.3389/fnsyn.2020.551691>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5389>  
**Date of Publication** 2020-11

**Author(s)** Prasad, Kante Krishna; Srinivasulu, Chelmala; Srinivasulu, Aditya; Anoop, V. K.; DAHANUKAR, NEELESH  
**Title** Indoreonectes testelanganaensis, a new species of loach (Teleostei: Nemacheilidae) from the Godavari Basin of India  
**Citation** Zootaxa, 4878(2).  
**Publisher** Magnolia Press  
**URI** <https://doi.org/10.11646/zootaxa.4878.2.7>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5400>  
**Date of Publication** 2020-11

**Author(s)** SARKAR, SUSOVAN; DAS, SOURADEEP; DAGAR, SHIKHA; JOSHI, MANESH PRAKASH; MUNGI, CHAITANYA V.; SAWANT, ANUPAM A.; PATKI, GAURI M.; RAJAMANI, SUDHA  
**Title** Prebiological Membranes and Their Role in the Emergence of Early Cellular Life  
**Citation** The Journal of Membrane Biology, 253, 589-608.  
**Publisher** Springer Nature  
**URI** <https://doi.org/10.1007/s00232-020-00155-w>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5399>  
**Date of Publication** 2020-11

# CHEMISTRY

**Author(s)** ALI, SHAIKH SADDAM SHOUKAT; ROY, KINGSHUK; AKULA, NAVEENKUMAR; OGALE, SATISHCHANDRA B.; MAJUMDAR, MOUMITA

**Title** Air exposed 1,4-bis(trimethylsilyl)-1,4-dihydropyrazine: an avant-garde carbonization precursor for multi-functionalized carbon material

**Citation** Chemical Communications, 56(94), 14805-14808.

**Publisher** Royal Society of Chemistry

**URI** <https://doi.org/10.1039/DOCC06597H>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5417>

**Date of Publication** 2020-12

**Author(s)** Aralekallu, Shambhulinga; Palanna, Manjunatha; Hadimani, Sowmyashree; Prabhu, Keshavananda C. P.; Sajjan, Veeresh A.; THOTIYL, MUSTHAFA OTTAKAM; Sannegowda, Lokesh Koodlur

**Title** Biologically inspired catalyst for electrochemical reduction of hazardous hexavalent chromium

**Citation** Dalton Transactions, 49(42), 15061-15071.

**Publisher** Royal Society of Chemistry

**URI** <https://doi.org/10.1039/D0DT02752A>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5469>

**Date of Publication** 2020-11

**Author(s)** Lyulin, Alexey, V.; Sengupta, Soumyadipta; VARUGHESE, ANNA; Komarov, Pavel; VENKATNATHAN, ARUN

**Title** Effect of Annealing on Structure and Diffusion in Hydrated Nafion Membranes

**Citation** ACS Applied Polymer Materials, 2(11), 5058-5066.

**Publisher** American Chemical Society

**URI** <https://doi.org/10.1021/acsapm.0c00875>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5466>

**Date of Publication** 2020-11

**Author(s)** PANDEY, SHALINI; NANDI, ADITI; Basu, Sudipta; BALLAV, NIRMALYA

**Title** Inducing endoplasmic reticulum stress in cancer cells using graphene oxide-based nanoparticles

**Citation** Nanoscale Advances, 2(10), 4887-4894.

**Publisher** Royal Society of Chemistry

**URI** <https://doi.org/10.1039/d0na00338g>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5412>

**Date of Publication** 2020-10

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**Author(s)** Su, Binbin; Zhou, Guojun; Huang, Jinglong; Song, Enhai; NAG, ANGSUMAN; Xia, Zhiguo  
**Title** Mn<sup>2+</sup>-Doped Metal Halide Perovskites: Structure, Photoluminescence, and Application  
**Citation** Laser & Photonics Reviews.  
**Publisher** Wiley  
**URI** <https://doi.org/10.1002/lpor.202000334>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5418>  
**Date of Publication** 2020-11

## EARTH AND CLIMATE SCIENCE

**Author(s)** NEENA, J. M.; ETTAMMAL, SUHAS; Murtugudde, R.  
**Title** Boreal Spring El Nino Convective State and Its Impact on Monsoon Onset  
**Citation** Geophysical Research Letters, 47(22).  
**Publisher** Wiley  
**URI** <https://doi.org/10.1029/2020GL090136>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5467>  
**Date of Publication** 2020-11

## MATHEMATICS

**Author(s)** Ghosh, Mrinal K.; PRADHAN, SOMNATH  
**Title** Ergodic risk-sensitive stochastic differential games with reflecting diffusions in a bounded domain  
**Citation** Stochastic Analysis and Applications.  
**Publisher** Taylor & Francis  
**URI** <https://doi.org/10.1080/07362994.2020.1845207>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5395>  
**Date of** 2020-11

**Author(s)** KALELKAR, TEJAS; PHANSE, ADVAIT  
**Title** Geometric bistellar moves relate geometric triangulations  
**Citation** Topology and Its Applications, 285.  
**Publisher** Elsevier B.V.  
**URI** <https://doi.org/10.1016/j.topol.2020.107390>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5468>  
**Date of Publication** 2020-11

# PHYSICS

**Author(s)** ALI, SHAIKH SADDAM SHOUKAT; ROY, KINGSHUK; AKULA, NAVEENKUMAR; OGALE, SATISHCHANDRA B.; MAJUMDAR, MOUMITA

**Title** Air exposed 1,4-bis(trimethylsilyl)-1,4-dihydropyrazine: an avant-garde carbonization precursor for multi-functionalized carbon material

**Citation** Chemical Communications, 56(94), 14805-14808.

**Publisher** Royal Society of Chemistry

**URI** <https://doi.org/10.1039/DOCC06597H>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5417>

**Date of Publication** 2020-12

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

**Title** Search for decays of the 125 GeV Higgs boson into a Z boson and a  $\rho$  or  $\phi$  meson

**Citation** Journal of High Energy Physics, 2020(11).

**Publisher** Springer Nature

**URI** [https://doi.org/10.1007/JHEP11\(2020\)039](https://doi.org/10.1007/JHEP11(2020)039)

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5420>

**Date of Publication** 2020-11

**Author(s)** CMS Collaboration; Sirunyan, A. M.; DUBE, S.; KANSAL, B.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; RASTOGI, A.; SHARMA, S.

**Title** Measurement of the top quark Yukawa coupling from  $t\bar{t}$  kinematic distributions in the dilepton final state in proton-proton collisions at  $\sqrt{s} = 13$  TeV

**Citation** Physical Review D, 102(9).

**Publisher** American Physical Society

**URI** <https://doi.org/10.1103/PhysRevD.102.092013>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5471>

**Date of Publication** 2020-11

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

**Title** Measurements of the W boson rapidity, helicity, double-differential cross sections, and charge asymmetry in pp collisions at  $\sqrt{s} = 13$  TeV

**Citation** Physical Review D, 102(9).

**Publisher** American Physical Society

**URI** <https://doi.org/10.1103/PhysRevD.102.092012>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5473>

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**Author(s)** Das, Arindam; GHOSH, DIPTIMOY; Giunti, Carlo; THALAPILLIL, ARUN  
**Title** Neutrino charge constraints from scattering to the weak gravity conjecture to neutron stars  
**Citation** Physical Review D, 102(11).  
**Publisher** American Physical Society  
**URI** <https://doi.org/10.1103/PhysRevD.102.115009>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5464>  
**Date of Publication** 2020-12

**Author(s)** GHOSH, DIPTIMOY; SACHDEVA, DIVYA  
**Title** Constraints on Axion-Lepton coupling from Big Bang Nucleosynthesis  
**Citation** Journal of Cosmology and Astroparticle Physics, 2020.  
**Publisher** IOP Publishing  
**URI** <https://doi.org/10.1088/1475-7516/2020/10/060>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5398>  
**Date of Publication** 2020-10

**Author(s)Active** HARNAGEA, LUMINITA; KUMAR, SAURABH; TELANG, PRACHI  
**Title** Crystal growth and characterization of CaTe: A potential topological material  
**Citation** Journal of Crystal Growth, 556.  
**Publisher** Elsevier B.V.  
**URI** <https://doi.org/10.1016/j.jcrysgro.2020.125988>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5463>  
**Date of Publication** 2020-02

**Author(s)** JAIN, SACHIN; John, Renjan Rajan; MALVIMAT, VINAY  
**Title** Momentum space spinning correlators and higher spin equations in three dimensions  
**Citation** Journal of High Energy Physics, 2020(11).  
**Publisher** Springer Nature  
**URI** [https://doi.org/10.1007/JHEP11\(2020\)049](https://doi.org/10.1007/JHEP11(2020)049)  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5419>  
**Date of Publication** 2020-11

**Author(s)** Kalantar, Na'im; AGARWALLA, BIJAY KUMAR; Segal, Dvira  
**Title** On the definitions and simulations of vibrational heat transport in nanojunctions  
**Citation** Journal of Chemical Physics, 153(17).  
**Publisher** AIP Publishing  
**URI** <https://doi.org/10.1063/5.0027414>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5396>  
**Date of Publication** 2020-11

**Author(s)Active** Kumar, Vijay; SADEKAR, ONKAR; Basu, Urna  
**Title** Active Brownian motion in two dimensions under stochastic resetting  
**Citation** Physical Review E, 102(5).  
**Publisher** American Physical Society  
**URI** <https://doi.org/10.1103/PhysRevE.102.052129>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/5414>  
**Date of Publication** 2020-11

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