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# BIOLOGY

**Author(s)** Balyan, Renu; Gund, Rupali; Chawla, Amanpreet Singh; KHARE, SATYAJEET P.; PRADHAN, SAURABH J.; Rane, Sanket; GALANDE, SANJEEV; Durdik, Jeannine Marie; George, Anna; BAL, VINEETA; Rath, Satyajit et al.

**Title** Correlation of cell-surface CD8 levels with function, phenotype and transcriptome of naive CD8 T cells

**Citation** Immunology.

**Publisher** John Wiley & Sons, Inc.

**URI** <https://doi.org/10.1111/imm.13036>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1538>

**Date of Publication** 17-12-2018

**Author(s)** BANG, ALOK

**Title** Antecedents of behavioural and reproductive dominance in pairs of the primitively eusocial wasp *Ropalidia marginata*

**Citation** Behavioural Processes, Vol. 158, pp1-3.

**Publisher** Elsevier B.V.

**URI** <https://doi.org/10.1016/j.beproc.2018.10.025>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1573>

**Date of Publication** JAN-2018

**Author(s)** Borkar, Chandrashekhar D.; SUBHEDAR, NISHIKANT K.

**Title** Neuropeptide CART prevents memory loss attributed to withdrawal of nicotine following chronic treatment in mice

**Citation** Addiction Biology, Vol. 24(1), pp51-64.

**Publisher** John Wiley & Sons, Inc.

**URI** <https://doi.org/10.1111/adb.12579>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1544>

**Date of Publication** JAN-2019

**Author(s)** CHAPLOT, KRITI; PIMPALE, LOKESH; Ramalingam, Balaji; DEIVASIGAMANI, SENTHILKUMAR; KAMAT, SIDDHESH S.; RATNAPARKHI, GIRISH S.

**Title** SOD1 activity threshold and TOR signalling modulate VAP(P58S) aggregation via ROS-induced proteasomal degradation in a Drosophila model of Amyotrophic Lateral Sclerosis

**Citation** Disease Models & Mechanisms.

**Publisher** The Company of Biologists Ltd

**URI** <https://doi.org/10.1242/dmm.033803>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1552>

**Date of Publication** 11-01-2019

**Author(s)** KAMAT, SIDDHESH S.

**Title** [Understanding the role of molecular motors in living cells: an odyssey from physics to biology](#)

**Citation** Current Science, Vol. 116(1), pp. 14-16.

**Publisher** Indian Academy of Sciences

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1545>

**Date of Publication** 10-01-2019

**Author(s)** KAMERKAR, SUKRUT C.; ROY, KRISHNENDU; BHATTACHARYYA, SOUMYA; PUCADYIL, THOMAS J.

**Title** A Screen for Membrane Fission Catalysts Identifies the ATPase EHD1

**Citation** Biochemistry, Vol.58(1), pp65-71.

**Publisher** American Chemical Society

**URI** <https://doi.org/10.1021/acs.biochem.8b00925>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1562>

**Date of Publication** 2019

**Author(s)** KELKAR, DHANASHREE S.; RAVIKUMAR, GOVINDAN; MEHENDALE, NEELAY; SINGH, SHUBHAM; JOSHI, ALAUMY; SHARMA, AJAY KUMAR; MHETRE, AMOL; RAJENDRAN, ABINAYA; CHAKRAPANI, HARINATH; KAMAT, SIDDHESH S.

**Title** A chemical-genetic screen identifies ABHD12 as an oxidized-phosphatidylserine lipase

**Citation** Nature Chemical Biology, Vol. 15, pp169-178.

**Publisher** Springer Nature Publishing AG

**URI** <https://doi.org/10.1038/s41589-018-0195-0>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1555>

**Date of Publication** 14-01-2019

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**Author(s)** Kumar, Harish; UDGAONKAR, JAYANT B.  
**Title** Mechanistic and Structural Origins of the Asymmetric Barrier to Prion-like Cross-Seeding between Tau-3R and Tau-4R  
**Citation** Journal of Molecular Biology, Vol.430(24), pp5304-5312.  
**Publisher** Elsevier B.V.  
**URI** <https://doi.org/10.1016/j.jmb.2018.09.010>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1550>  
**Date of Publication** 07-12-2018

**Author(s)** MOHANASUNDARAM, BOOMINATHAN; RAJMANE, VYANKATESH B.; JOGDAND, SUKANYA V.; BHIDE, AMEY J.; BANERJEE, ANJAN K.  
**Title** Agrobacterium-mediated Tnt1 mutagenesis of moss protonemal filaments and generation of stable mutants with impaired gametophyte  
**Citation** Molecular Genetics and Genomics.  
**Publisher** Springer  
**URI** <https://doi.org/10.1007/s00438-019-01532-4>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1567>  
**Date of Publication** 28-01-2019

**Author(s)** Narayana, Yadavalli, V; RAJAN, RAGHAV et al.  
**Title** Clathrin-Mediated Endocytosis Regulates a Balance between Opposing Signals to Maintain the Pluripotent State of Embryonic Stem Cells  
**Citation** Stem Cell Reports, Vol.12(1), pp152-164.  
**Publisher** Elsevier B.V.  
**URI** <https://doi.org/10.1016/j.stemcr.2018.11.018>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1546>  
**Date of Publication** 08-01-2019

**Author(s)** Tripathi, Subhash K.; SHETTY, ANKITHA; GALANDE, SANJEEV et al.  
**Title** Quantitative proteomics reveals the dynamic protein landscape during initiation of human Th17 cell polarization  
**Citation** iScience, Vol.11, pp334-355.  
**Publisher** Elsevier B.V.  
**URI** <https://doi.org/10.1016/j.isci.2018.12.020>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1539>  
**Date of Publication** 25-01-2019

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# CHEMISTRY

**Author(s)** ARRA, SRILATHA; BABAR, ROHIT; KABIR, MUKUL  
**Title** Exciton in phosphorene: Strain, impurity, thickness, and heterostructure  
**Citation** Physical Review B, Vol. 99(4).  
**Publisher** American Physical Society  
**URI** <https://doi.org/10.1103/PhysRevB.99.045432>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1570>  
**Date of Publication** 22-01-2019

**Author(s)** BORA, PRERONA; CHAUHAN, PREETI; MANNA, SUMAN; CHAKRAPANI, HARINATH  
**Title** A vinyl-boronate ester-based persulfide donor controllable by hydrogen peroxide, a reactive oxygen species (ROS)  
**Citation** Organic Letters, Vol. 20(24), pp7916-7920.  
**Publisher** American Chemical Society  
**URI** <https://doi.org/10.1021/acs.orglett.8b03471>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1554>  
**Date of Publication** 07-12-2018

**Author(s)** CHAUDHARI, MORESHWAR B.; GNANAPRAKASAM, BOOPATHY  
**Title** Recent advances in the metalcatalyzed activation of amide bonds  
**Citation** Chemistry: An Asian Journal, Vol.14(1), pp76-93.  
**Publisher** John Wiley & Sons, Inc.  
**URI** <https://doi.org/10.1002/asia.201801317>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1556>  
**Date of Publication** 04-01-2019

**Author(s)** DUTTA, SUBHAJIT; DESAI, AAMOD, V.; SAMANTA, PARTHA; GHOSH, SUJIT K.  
**Title** Synthesis and structural elucidation of neutral N-donor linker based bi-porous isostructural cationic metal-organic frameworks  
**Citation** InorganicaChimicaActa, Vol. 486, pp401-405.  
**Publisher** Elsevier B.V.  
**URI** <https://doi.org/10.1016/j.ica.2018.10.052>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1548>  
**Date of Publication** 24-02-2019

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**Author(s)** GUPTA, KRITI; RANA, SHAMMI; JHA, PLAWAN KUMAR; BALLAV, NIRMALYA et al.  
**Title** Metamagnetism in Nanosheets of Co-II-MOF with T-N at 26 K and a Giant Hysteretic Effect at 5 K  
**Citation** Inorganic Chemistry, Vol. 57(24), pp15044-15047.  
**Publisher** American Chemical Society  
**URI** <https://doi.org/10.1021/acs.inorgchem.8b03064>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1541>  
**Date of Publication** 04-12-2018

**Author(s)** Harmalkar, Sarvesh S.; DESHMUKH, MAHESH S.; SRIVASTAVA, ANANT KUMAR et al.  
**Title** Dual-site aqua mononuclear nickel(II) complexes of non-hemetetradentate ligands: Synthesis, characterization and reactivity  
**Citation** Inorganica Chimica Acta, Vol. 486, pp425-434.  
**Publisher** Elsevier B.V.  
**URI** <https://doi.org/10.1016/j.ica.2018.10.069>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1547>  
**Date of Publication** 24-02-2019

**Author(s)** KELKAR, DHANASHREE S.; RAVIKUMAR, GOVINDAN; MEHENDALE, NEELAY; SINGH, SHUBHAM; JOSHI, ALAUMY; SHARMA, AJAY KUMAR; MHETRE, AMOL; RAJENDRAN, ABINAYA; CHAKRAPANI, HARINATH; KAMAT, SIDDHESH S.  
**Title** A chemical-genetic screen identifies ABHD12 as an oxidized-phosphatidylserine lipase  
**Citation** Nature Chemical Biology, Vol. 15, pp169-178.  
**Publisher** Springer Nature Publishing AG  
**URI** <https://doi.org/10.1038/s41589-018-0195-0>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1555>  
**Date of Publication** 14-01-2019

**Author(s)** Mani, KailasamSaravana; RAVIKUMAR, GOVINDAN et al.  
**Title** Highly Sensitive Coumarin-Pyrazolone Probe for the Detection of Cr<sup>3+</sup> and the Application in Living Cells  
**Citation** ACS Omega, Vol. 3(12), pp17212-17219.  
**Publisher** American Chemical Society  
**URI** <https://doi.org/10.1021/acsomega.8b01907>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1551>  
**Date of Publication** 13-12-2018

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**Author(s)** SHANKER, GOLLA SHIVA; BHOSALE, RESHMA; OGALE, SATISHCHANDRA; NAG, ANGSUMAN  
**Title** 2D Nanocomposite of g-C3N4 and TiN embedded N-Doped graphene for photoelectrochemical reduction of water using sunlight  
**Citation** Advanced Materials Interfaces, Vol.5(24).  
**Publisher** John Wiley & Sons, Inc.  
**URI** <https://doi.org/10.1002/admi.201801488>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1542>  
**Date of Publication** 21-12-2018

## Physics

**Author(s)** ARRA, SRILATHA; BABAR, ROHIT; KABIR, MUKUL  
**Title** Exciton in phosphorene: Strain, impurity, thickness, and heterostructure  
**Citation** Physical Review B, Vol. 99(4).  
**Publisher** American Physical Society  
**URI** <https://doi.org/10.1103/PhysRevB.99.045432>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1570>  
**Date of Publication** 22-01-2019

**Author(s)** CMS Collaboration; Sirunyan, A. M.; CHAUHAN, S.; DUBE, S.; HEGDE, V.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; SHARMA, S. et al.  
**Title** Angular analysis of the decay  $B^+ \rightarrow K^+\mu^+\mu^-$  in proton-proton collisions at  $\sqrt{s}=8$  TeV  
**Citation** Physical Review D Vol.98(11).  
**Publisher** American Physical Society  
**URI** <https://doi.org/10.1103/PhysRevD.98.112011>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1549>  
**Date of Publication** 20-12-2018

**Author(s)** CMS Collaboration; Sirunyan, A. M.; CHAUHAN, S.; DUBE, S.; HEGDE, V.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; SHARMA, S. et al.  
**Title** Event shape variables measured using multijet final states in proton-proton collisions at  $\sqrt{s}=13$  TeV  
**Citation** Journal of High Energy Physics.  
**Publisher** Springer  
**URI** [https://doi.org/10.1007/JHEP12\(2018\)117](https://doi.org/10.1007/JHEP12(2018)117)  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1553>  
**Date of Publication** 19-12-2018

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**Author(s)** CMS Collaboration; Sirunyan, A. M.; CHAUHAN, S.; DUBE, S.; HEGDE, V.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; SHARMA, S. et al.

**Title** Search for pair-produced resonances decaying to quark pairs in proton-proton collisions at  $\sqrt{s}=13$  TeV

**Citation** Physical Review D Vol.98(11).

**Publisher** American Physical Society

**URI** <https://doi.org/10.1103/PhysRevD.98.112014>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1557>

**Date of Publication** 28-12-2018

**Author(s)** CMS Collaboration; Sirunyan, A. M.; CHAUHAN, S.; DUBE, S.; HEGDE, V.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; SHARMA, S. et al.

**Title** Search for the Higgs Boson Decaying to Two Muons in Proton-Proton Collisions at  $\sqrt{s}=13$  TeV

**Citation** Physical Review Letters, Vo.122(2).

**Publisher** American Physical Society

**URI** <https://doi.org/10.1103/PhysRevLett.122.021801>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1563>

**Date of Publication** 14-01-2019

**Author(s)** CMS Collaboration; Sirunyan, A. M.; CHAUHAN, S.; DUBE, S.; HEGDE, V.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; SHARMA, S. et al.

**Title** Measurement of differential cross sections for inclusive isolated-photon and photon+jet production in proton-proton collisions at  $s=13$ TeV

**Citation** European Physical Journal C, Vol.79.

**Publisher** Springer

**URI** <https://doi.org/10.1140/epjc/s10052-018-6482-9>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1564>

**Date of Publication** 10-01-2019



**Author(s)** CMS Collaboration; Sirunyan, A. M.; CHAUHAN, S.; DUBE, S.; HEGDE, V.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; SHARMA, S. et al.

**Title** Search for Higgs boson pair production in the gamma gamma b(b)over-bar final state in pp collisions at root s=13 TeV

**Citation** Physics Letters B, Vol.788, pp7-36.

**Publisher** Elsevier B.V.

**URI** <https://doi.org/10.1016/j.physletb.2018.10.056>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1565>

**Date of Publication** 10-01-2019

**Author(s)** CMS Collaboration; Sirunyan, A. M.; CHAUHAN, S.; DUBE, S.; HEGDE, V.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; SHARMA, S. et al.

**Title** Search for low-mass resonances decaying into bottom quark-antiquark pairs in proton-proton collisions at  $\sqrt{s}=13$  TeV

**Citation** Physical Review D, Vol.99(1).

**Publisher** American Physical Society

**URI** <https://doi.org/10.1103/PhysRevD.99.012005>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1566>

**Date of Publication** 09-01-2019

**Author(s)** CMS Collaboration; Sirunyan, A. M.; CHAUHAN, S.; DUBE, S.; HEGDE, V.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; SHARMA, S. et al.

**Title** Search for Dark Matter Particles Produced in Association with a Top Quark Pair at root s=13 TeV

**Citation** Physical Review Letters, Vo.122(1).

**Publisher** American Physical Society

**URI** <https://doi.org/10.1103/PhysRevLett.122.011803>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1572>

**Date of Publication** 11-01-2019

**Author(s)** Dhawane, Manasi; DESHPANDE, APARNA; Jain, Ratnesh; Dandekar, Prajakta

**Title** Colorimetric point-of-care detection of cholesterol using chitosan nanofibers

**Citation** Sensors and Actuators B-Chemical Vol. 281, pp72-79.

**Publisher** Elsevier B.V.

**URI** <https://doi.org/10.1016/j.snb.2018.10.060>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1558>

**Date of Publication** 15-02-2019

**Author(s)** KHAMBALKAR, VAIBHAV; Birajdar, Shobha; Adhyapak, Parag; Kulkarni, Sulabha  
**Title** Nanocomposite of polypyrrol and silica rods-gold nanoparticles core-shell as an ammonia sensor  
**Citation** Nanotechnology, Vol. 30(10).  
**Publisher** IOP Publishing Ltd  
**URI** <https://doi.org/10.1088/1361-6528/aaf83d>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1571>  
**Date of Publication** 18-01-2019

**Author(s)** Lecointre, Pierre; RAHMAN, ATIKUR et al.  
**Title** Ballistics of self-jumping microdroplets  
**Citation** Physical Review Fluids, Vol.4(1).  
**Publisher** American Physical Society  
**URI** <https://doi.org/10.1103/PhysRevFluids.4.013601>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1559>  
**Date of Publication** 07-01-2019

**Author(s)** PAL, SOHAM; Moitra, Saranyo; ANJUSHA, V. S.; Kumar, Anil; MAHESH, T. S.  
**Title** Hybrid scheme for factorisation: Factoring 551 using a 3-qubit NMR quantum adiabatic processor  
**Citation** Pramana.  
**Publisher** Indian Academy of Sciences  
**URI** <https://doi.org/10.1007/s12043-018-1684-0>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1560>  
**Date of Publication** FEB-2019

**Author(s)** SHANKER, GOLLA SHIVA; BHOSALE, RESHMA; OGALE, SATISHCHANDRA; NAG, ANGSUMAN  
**Title** 2D Nanocomposite of g-C<sub>3</sub>N<sub>4</sub> and TiN embedded N-Doped graphene for photoelectrochemical reduction of water using sunlight  
**Citation** Advanced Materials Interfaces, Vol.5(24).  
**Publisher** John Wiley & Sons, Inc.  
**URI** <https://doi.org/10.1002/admi.201801488>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1542>  
**Date of Publication** 21-12-2018

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**Author(s)** SINGH, MOHIT KUMAR; BHUNIA, AMIT; DATTA, SHOUVIK et al.  
**Title** Role of interface potential barrier, Auger recombination and temporal coherence in In<sub>0.5</sub>Ga<sub>0.5</sub>As/GaAs quantum dot-based p-i-n light emitting diodes  
**Citation** Journal of Physics D: Applied Physics, Vol. 52(9).  
**Publisher** IOP Publishing  
**URI** <https://doi.org/10.1088/1361-6463/aaf61c>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/1537>  
**Date of Publication** 28-12-2018

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