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Faculty, Scientists and Students of IISER Pune.  
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# BIOLOGY

**Author(s)** Anoop, V. K.; Britz, Ralf; Arjun, C. P.; DAHANUKAR, NEELESH; Raghavan, Rajeev  
**Title** Pangiobhujia, a new, peculiar species of miniature subterranean eel loach lacking dorsal and pelvic is fins from India (Teleostei: Cobitidae)  
**Citation** Zootaxa, 4683(1), 144-150.  
**Publisher** Magnolia Press  
**URI** <http://dx.doi.org/10.11646/zootaxa.4683.1.8>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4163>  
**Date of Publication** OCT-2019

**Author(s)** Banerjee, Sanchita; ROY, ANKIT; MADHUSUDHAN, M. S.; Bairagya, Hridoy R.; Roy, Amit  
**Title** Structural insights of a cellobiose dehydrogenase enzyme from the basidiomycetes fungus Termitomyces clvpeatus  
**Citation** Computational Biology and Chemistry, 82, 65-73.  
**Publisher** Elsevier B.V.  
**URI** <https://doi.org/10.1016/j.combiolchem.2019.05.013>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4145>  
**Date of Publication** OCT-2019

**Author(s)** BARANWAL, JYOTI; Lhospice, Sebastien; KANADE, MANIL; CHAKRABORTY, SUKANYA; GADE, PRIYANKA RAJENDRA; HARNE, SHRIKANT; Herrou, Julien; Mignot, Tam; GAYATHRI, PANANGHAT  
**Title** Allosteric regulation of a prokaryotic small Ras-like GTPase contributes to cell polarity oscillations in bacterial motility  
**Citation** PLOS Biology, 17(9).  
**Publisher** Public Library of Science  
**URI** <https://doi.org/10.1371/journal.pbio.3000459>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4170>  
**Date of Publication** 27-09-2019

**Author(s)** Bhatia, Sandhya; Krishnamoorthy, G.; DHAR, DEEPAK; UDGAONKAR, JAYANT B.  
**Title** Observation of Continuous Contraction and a Metastable Misfolded State during the Collapse and Folding of a Small Protein  
**Citation** Journal of Molecular Biology, 431(19), 3814-3826.  
**Publisher** Elsevier B.V.  
**URI** <https://doi.org/10.1016/j.jmb.2019.07.024>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4144>  
**Date of Publication** 06-09-2019

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**Author(s)** Britz, Ralf; DAHANUKAR, NEELESH; Anoop, V. K.; Ali, Anvar  
**Title** Channarara, a new species of snakehead fish from the Western Ghats region of Maharashtra, India (Teleostei: Labyrinthici: Channidae)  
**Citation** Zootaxa, 4683(4), 589-600.  
**Publisher** Magnolia Press  
**URI** <http://dx.doi.org/10.11646/zootaxa.4683.4.8>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4160>  
**Date of Publication** OCT-2019

**Author(s)** Ghosh-Harihar, Mousumi; ATHREYA, RAMANA et al.  
**Title** Protected areas and biodiversity conservation in India  
**Citation** Biological Conservation, 237, 114-124.  
**Publisher** Elsevier B.V.  
**URI** <https://doi.org/10.1016/j.biocon.2019.06.024>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4176>  
**Date of Publication** SEP-2019

**Author(s)** Kumar, Mukesh; Ojha, Srikant; Rai, Priyanka; JOSHI, ALAUMY; KAMAT, SIDDHESH S.; Mallik, Roop  
**Title** Insulin activates intracellular transport of lipid droplets to release triglycerides from the liver  
**Citation** Journal of Cell Biology, 218(10).  
**Publisher** Rockefeller University Press  
**URI** <https://doi.org/10.1083/jcb.201903102>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4152>  
**Date of Publication** 11-10-2019

**Author(s)** Sasidharan, Sreeja; Pochinda, Simon; Elgaard-Jorgensen, Paninnguaq Naja; RAJAMANI, SUDHA; Khandelia, Himanshu; Raghunathan, V. A.  
**Title** Interaction of the mononucleotide UMP with a fluid phospholipid bilayer  
**Citation** Soft Matter, 15(40), 8129-8136.  
**Publisher** Royal Society of Chemistry  
**URI** <http://dx.doi.org/10.1039/C9SM01257E>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4175>  
**Date of Publication** 02-10-2019

# CHEMISTRY

**Author(s)** Burade, Sachin S.; Pawar, Sushil, V; SAHA, TANMOY; Kumbhar, Navanath; Kotmalel, Amol S.; AHMAD, MANZOOR; TALUKDAR, PINAKI; Dhavale, Dilip D.

**Title** Sugar-derived oxazolonepseudotetrapeptide as gamma-turn inducer and anion-selective transporter

**Citation** Beilstein Journal of Organic Chemistry, 15, 2419-2427.

**Publisher** Beilstein-Institute

**URI** <http://dx.doi.org/10.3762/bjoc.15.234>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4167>

**Date of Publication** 14-10-2019

**Author(s)** CHAKRABORTY, DEBANJAN; SHEKHAR, PRAGALBH; SINGH, HIMAN DEV; KUSHWAHA, RINKU; Vinod, C. P.; VAIDHYANATHAN, RAMANATHAN

**Title** Ag Nanoparticles Supported on a Resorcinol?Phenylenediamine?Based Covalent Organic Framework for Chemical Fixation of CO<sub>2</sub>

**Citation** Chemistry - An Asian Journal.

**Publisher** Wiley

**URI** <https://doi.org/10.1002/asia.201901157>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4173>

**Date of Publication** 23-09-2019

**Author(s)** CHAUHAN, PREETI; Gupta, Kavya; RAVIKUMAR, GOVINDAN; Saini, Deepak K.; CHAKRAPANI, HARINATH

**Title** Carbonyl Sulfide (COS) Donor Induced Protein Persulfidation Protects against Oxidative Stress

**Citation** Chemistry-An Asian Journal.

**Publisher** Wiley

**URI** <https://doi.org/10.1002/asia.201901148>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4146>

**Date of Publication** 10-09-2019

**Author(s)** DATTA, DHRUBAJYOTI; Jana, Saibal; TIWARI, OMSHANKER

**Title** Tubular to spherical mesoscopic self-assembly of C- and N-termini capped dileucines

**Citation** Peptide Science.

**Publisher** Wiley

**URI** <http://dx.doi.org/10.1002/pep2.24134>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4164>

**Date of Publication** 30-09-2019

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**Author(s)** JHA, PLAWAN KUMAR; Kashyap, Varchaswal; GUPTA, KRITI; KUMAR, VIKASH; Debnath, Anil Krishna; ROY, DEBASHREE; RANA, SHAMMI; Kurungot, Sreekumar; BALLAV, NIRMALYA

**Title** In-situ generated Mn<sub>3</sub>O<sub>4</sub>-reduced graphene oxide nanocomposite for oxygen reduction reaction and isolated reduced graphene oxide for supercapacitor applications

**Citation** Carbon, 154, 285-291.

**Publisher** Elsevier B.V.

**URI** <https://doi.org/10.1016/j.carbon.2019.08.012>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4156>

**Date of Publication** DEC-2019

**Author(s)** KARMAKAR, AVISHEK; SAMANTA, PARTHA; DUTTA, SUBHAJIT; GHOSH, SUJIT K.

**Title** Fluorescent “Turn-on” Sensing Based on Metal-organic Frameworks (MOFs)

**Citation** Chemistry: An Asian Journal.

**Publisher** Wiley

**URI** <https://doi.org/10.1002/asia.201901168>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4142>

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

**Author(s)** Kashid, Somnath M.; SINGH, REMAN K.; Kwon, Hyejin; Kim, Yung Sam; MUKHERJEE, ARNAB; Bagchi, Sayan

**Title** Arresting an Unusual Amide Tautomer Using Divalent Cations

**Citation** Journal of Physical Chemistry B, 123(40), 8419-8424.

**Publisher** American Chemical Society

**URI** <https://doi.org/10.1021/acs.jpcc.9b08463>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4169>

**Date of Publication** 18-09-2019

**Author(s)** MAITY, RAHUL; SINGH, HIMAN DEV; YADAV, ANKIT KUMAR; CHAKRABORTY, DEBANJAN; VAIDHYANATHAN, RAMANATHAN

**Title** Water-stable Adenine-based MOFs with Polar Pores for Selective CO<sub>2</sub> Capture

**Citation** Chemistry-An Asian Journal, 14(20), 3736-3741.

**Publisher** Wiley

**URI** <https://dx.doi.org/10.1002/asia.201901020>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4168>

**Date of Publication** 15-10-2019

**Author(s)** MOLLICK, SAMRAJ; MANDAL, TARAK NATH; Jana, Atanu; FAJAL, SAHEL; GHOSH, SUJIT K.  
**Title** A hybrid blue perovskite@metal-organic gel (MOG) nanocomposite: simultaneous improvement of luminescence and stability  
**Citation** Chemical Science.  
**Publisher** Royal Society of Chemistry  
**URI** <https://doi.org/10.1039/C9SC03829A>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4148>  
**Date of Publication** 25-09-2019

**Author(s)** NANDI, SHYAMAPADA; Luna, Phil De; MAITY, RAHUL; CHAKRABORTY, DEBANJAN; Daff, Thomas; Burns, Thomas; Woo, Tom K.; VAIDHYANATHAN, RAMANATHAN  
**Title** Imparting gas selective and pressure dependent porosity into a non-porous solid via coordination flexibility  
**Citation** Materials Horizons, 6(9), 1883-1891.  
**Publisher** Royal Society of Chemistry  
**URI** <https://doi.org/10.1039/C9MH00133F>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4171>  
**Date of Publication** 1-11-2019

**Author(s)** Sethi, Yogesh A.; Kulkarni, Aniruddha K.; Khore, Supriya K.; Panmand, Rajendra P.; KANADE, SANDIP C.; Gosavi, Suresh W.; Kulkarni, Milind, V.; Kale, Bharat B.  
**Title** Plasmonic Ag decorated CdMoO<sub>4</sub> as an efficient photocatalyst for solar hydrogen production  
**Citation** RSC Advances, 9(49), 28525-28533.  
**Publisher** Royal Society of Chemistry  
**URI** <https://doi.org/10.1039/C9RA05581A>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4141>  
**Date of Publication** 10-09-2019

**Author(s)** SUDHAKARA, SARVAJITH MALALI; BHAT, ZAHID MANZOOR; DEVENDRACHARI, MRUTHYUNJAYACHARI CHATTANAHALLI; KOTTAICHAMY, ALAGAR RAJA; ITAGI, MAHESH; THIMMAPPA, RAVIKUMAR; Khan, Fasiulla; Kotresh, Harish MakriNimbegondi: THOTIYL. MUSTHAFA OTTAKAM  
**Title** A Zinc-Quinone Battery for Paired Hydrogen Peroxide Electrosynthesis  
**Citation** Journal of Colloid and Interface Science, 559, 324-330.  
**Publisher** Elsevier B.V.  
**URI** <https://doi.org/10.1016/j.jcis.2019.10.031>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4150>  
**Date of Publication** 01-02-2010

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**Author(s)** TANDON, BHARAT; Ghosh, Sandeep; Milliron, Delia J.  
**Title** Dopant Selection Strategy for High-Quality Factor Localized Surface Plasmon Resonance from Doped Metal Oxide Nanocrystals  
**Citation** Chemistry of Materials, 31(18), 7752-7760.  
**Publisher** American Chemical Society  
**URI** <https://doi.org/10.1021/acs.chemmater.9b02917>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4151>  
**Date of Publication** 09-09-2019

## Humanities and Social Sciences

**Author(s)** PAI, R. VENKETESWARA; Shylaja, B. S.  
**Title** Observational records of stars in Indian texts - III (Gemini)  
**Citation** Current Science, 117(08), 1383-1386.  
**Publisher** Indian Academy of Sciences  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4166>  
**Date of Publication** 25-10-2019

## Earth and Climate Science

**Author(s)** DAS, RITIMA; RAI, S. S.  
**Title** Redefining DharwarCraton-Southern granulite terrain boundary in south India from new seismological constraints  
**Citation** Precambrian Research, 332.  
**Publisher** Elsevier B.V.  
**URI** <https://doi.org/10.1016/j.precamres.2019.105394>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4147>  
**Date of Publication** 15-09-2019

**Author(s)** Shah, Sunil Singh; BANERJEE, ARGHA; Nainwal, Harish Chandra; Shankar, R.  
**Title** Estimation of the total sub-debris ablation from point-scale ablation data on a debris-covered glacier  
**Citation** Journal of Glaciology, 65(253), 759-769.  
**Publisher** Cambridge University Press  
**URI** <https://doi.org/10.1017/jog.2019.48>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4159>  
**Date of Publication** OCT-2019

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# Physics

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

**Title** Search for a Light Charged Higgs Boson Decaying to a W Boson and a CP-Odd Higgs Boson in Final States with  $e\mu\mu$  or  $\mu\mu\mu$  in Proton-Proton Collisions at  $\sqrt{s}=13$  TeV

**Citation** Physical Review Letters, 123 (13).

**Publisher** American Physical Society

**URI** <https://doi.org/10.1103/PhysRevLett.123.131802>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4149>

**Date of Publication** 23-09-2019

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

**Title** Search for long-lived particles using nonprompt jets and missing transverse momentum with proton-proton collisions at  $\sqrt{s}=13$  TeV

**Citation** Physics Letters B, 797.

**Publisher** Elsevier B.V.

**URI** <https://doi.org/10.1016/j.physletb.2019.134876>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4153>

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

**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** Charged-particle angular correlations in XeXe collisions at  $\sqrt{s(NN)}=5.44$  TeV

**Citation** Physical Review C, 100(4).

**Publisher** American Physical Society

**URI** <https://doi.org/10.1103/PhysRevC.100.044902>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4157>

**Date of Publication** 03-10-2019

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

**Title** Measurement of the top quark polarization and  $t(t)$ over-barspin correlations using dilepton final states in proton-proton collisions at  $\sqrt{s}=13$  TeV

**Citation** Physical Review D, 100(7).

**Publisher** American Physical Society

**URI** <http://dx.doi.org/10.1103/PhysRevD.100.072002>

**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4161>

**Date of Publication** 08-10-2019

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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.; RASTOGI, S.; SHARMA, S. et al.  
**Title** Search for pair production of vectorlike quarks in the fully hadronic final state  
**Citation** Physical Review D, 100(7).  
**Publisher** American Physical Society  
**URI** <http://dx.doi.org/10.1103/PhysRevD.100.072001>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4162>  
**Date of Publication** 08-10-2019

**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** Evidence for light-by-light scattering and searches for axion-like particles in ultraperipheralPbPb collisions at root s(NN)=5.02 TeV  
**Citation** Physics Letters B, 797.  
**Publisher** Elsevier B.V.  
**URI** <https://doi.org/10.1016/j.physletb.2019.134826>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4143>  
**Date of Publication** 10-10-2019

**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** Azimuthal separation in nearly back-to-back jet topologies in inclusive 2- and 3-jet events in pppp collisions at  $\sqrt{s}=13\text{TeV}$   
**Citation** The European Physical Journal C, 79(773).  
**Publisher** Springer  
**URI** <https://doi.org/10.1140/epjc/s10052-019-7276-4>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4177>  
**Date of Publication** 18-09-2019

**Author(s)** CMS Collaboration; Sirunyan, A. M.; CHAUHAN, S.; DUBE, S.; HEGDE, V.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A; RASTOGI, A.; SHARMA, S. et al.  
**Title** Measurement of the top quark Yukawa coupling from  $t\bar{t}$  kinematic distributions in the lepton+jets final state in proton-proton collisions at  $\sqrt{s}=13\text{ TeV}$   
**Citation** Physical Review D, 100(07).  
**Publisher** American Physical Society  
**URI** <https://doi.org/10.1103/PhysRevD.100.072007>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4178>  
**Date of Publication** 17-10-2019

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**Author(s)** GEORGE, SANDIP V.; Misra, R.; Ambika, G.  
**Title** Fractal measures and nonlinear dynamics of overcontact binaries  
**Citation** Communications in Nonlinear Science and Numerical Simulation, 80.  
**Publisher** Elsevier B.V.  
**URI** <https://doi.org/10.1016/j.cnsns.2019.104988>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4172>  
**Date of Publication** JAN-2020

**Author(s)** Godbole, Rohini; Guchait, Monoranjan; Khosa, Charanjit K.; Lahiri, Jayita; SHARMA, SEEMA; Vijay, Aravind H.  
**Title** Boosted top quark polarization  
**Citation** Physical Review D, 100(5).  
**Publisher** American Physical Society  
**URI** <https://doi.org/10.1103/PhysRevD.100.056010>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4143>  
**Date of Publication** 16-09-2019

**Author(s)** KUMAR, JITENDER; Mukkattukavil, Deepak John; Bhattacharya, Arpan; NAIR, SUNIL  
**Title** Investigations of the heterometallic Ludwigite Ni<sub>2</sub>AlBO<sub>5</sub>  
**Citation** Journal of Physics: Condensed Matter.  
**Publisher** IOP Publishing Ltd.  
**URI** <https://doi.org/10.1088/1361-648X/ab4f5c>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4158>  
**Date of Publication** 18-10-2019

**Author(s)** SARYAL, SUSHANT; Friedman, HavaMeira; Segal, Dvira; AGARWALLA, BIJAY KUMAR  
**Title** Thermodynamic uncertainty relation in thermal transport  
**Citation** Physical Review E, 100(4).  
**Publisher** American Physical Society  
**URI** <https://doi.org/10.1103/PhysRevE.100.042101>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4155>  
**Date of Publication** 01-10-2019

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**Author(s)** SUDHEER KUMAR, C. S.  
**Title** Violation of space-time Bell-CHSH inequality beyond the Tsirelson bound and quantum cryptography  
**Citation** Pramana, 93, 67.  
**Publisher** Springer  
**URI** <http://dx.doi.org/10.1007%2Fs12043-019-1830-3>  
**DR URI** <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4174>  
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