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New Publications of Faculty, Scientists and Students of IISER Pune - July 2017.

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Biology

Author(s) **Meesala, Srinu**; Gurung, Pratima; **Karmodiya, Krishanpal**; Subrayan, Parameswaran and **Watve, Milind G.**
Title Isolation and structure elucidation of halymeniaol, a new antimalarial sterol derivative from the red alga *Halymenia floresii*.
Name of the Journal Journal of Asian Natural Products Research
Vol. No. 27
Issue No. 05
Page No. 1-8
Date of Publication 29-Jun-2017
Name of the Publisher Taylor & Francis
DOI <http://dx.doi.org/10.1080/10286020.2017.1342636>

Author(s) **Reddy, Puli Chandramouli**; **Ubhe, Suyog**; **Sirwani, Neha**; **Lohokare, Rasika** and **Galande, Sanjeev.**
Title Rapid divergence of histones in Hydrozoa (Cnidaria) and evolution of a novel histone involved in DNA damage response in hydra
Name of the Journal Zoology
Date of Publication 15-Jun-2017
Name of the Publisher Elsevier
DOI <https://doi.org/10.1016/j.zool.2017.06.005>

Author(s) **Mehrotra, Sonam** and Deshpande, Girish.
Title All are equal, but some are more equal than others: Epigenetic regulation of germ line stem cell fate in *Drosophila melanogaster*
Name of the Journal Genes & Genetic Systems
Date of Publication 30-Jun-2017
Name of the Publisher The Genetics Society of Japan
DOI <http://doi.org/10.1266/ggs.16-00057>

Chemistry

Author(s) **Mete, Trimbak B.**; **Khopade, Tushar M.** and **Bhat, Ramakrishna G.**
Title Oxidative decarboxylation of arylacetic acids in water: One-pot transition-metal-free synthesis of aldehydes and ketones
Name of the Journal Tetrahedron Letters
Vol. No. 58
Issue No. 29
Page No. 2822–2825
Date of Publication 19-Jul-2017
Name of the Publisher Elsevier
DOI <https://doi.org/10.1016/j.tetlet.2017.06.013>

Author(s) **Bhat, Zahid Manzoor; Thimmappa, Ravikumar; Devendrachari, Mruthyunjayachari Chattanahalli; Shafi, Shahid Pottachola; Aralekallu, Shambhulinga; Kottaichamy, Alagar Raja; Gautam, Manu and Thotiyl, Musthafa Ottakam.**

Title A Direct Alcohol Fuel Cell Driven by an Outer Sphere Positive Electrode

Name of the Journal The Journal of Physical Chemistry Letters

Vol. No. 8

Page No. 3523-3529

Date of Publication 07-Jul-2017

Name of the Publisher American Chemical Society

DOI [10.1021/acs.jpcclett.7b01418](https://doi.org/10.1021/acs.jpcclett.7b01418)

Author(s) **Gaikwad, Pramod; Kadlag, Kavita; Nambiar, Manasa; Devendrachari, Mruthyunjayachari Chattanahalli; Aralekallu, Shambhulinga; Kottaichamy, Alagar Raja; Bhat, Zahid Manzoor; Thimmappa, Ravikumar; Shafi, Shahid Pottachola and Thotiyl, Musthafa Ottakam.**

Title A Redox Active Binary Logic Gate Circuit for Homeland Security

Name of the Journal Analytical Chemistry

Date of Publication 03-Jul-2017

Name of the Publisher American Chemical Society

DOI [10.1021/acs.analchem.7b00823](https://doi.org/10.1021/acs.analchem.7b00823)

Author(s) **Samanta, Partha; Desai, Aamod V;** Anothumakkool, Bihag; Shirolkar, Mandar M.; **Karmakar, Avishek;** Kurungot, Sreekumar and **Ghosh, Sujit K.**

Title Enhanced proton conduction by post-synthetic covalent modification in a porous covalent framework

Name of the Journal Journal of Materials Chemistry A

Vol. No. 5

Issue No. 26

Page No. 13659-13664

Date of Publication 15-Jun-2017

Name of the Publisher Royal Society of Chemistry

DOI [10.1039/C7TA00964J](https://doi.org/10.1039/C7TA00964J)

Author(s) **Kumar, Anand**; Duran, Miquel and Sola, Miquel.
Title Is Coronene Better Described by Clar's Aromatic pi-Sextet Model or by the AdNDP Representation?
Name of the Journal Journal of Computational Chemistry
Vol. No. 38
Issue No. 18
Page No. 1606-1611
Date of Publication 05-Jul-2017
Name of the Publisher Wiley
DOI [10.1002/jcc.24801](https://doi.org/10.1002/jcc.24801)

Earth and Climate Sciences

Author(s) Mateo, Paula; Keller, Gerta; **Punekar, Jahnvi** and Spangenberg, Jorge E.
Title Early to Late Maastrichtian environmental changes in the Indian Ocean compared with Tethys and South Atlantic
Name of the Journal Palaeogeography Palaeoclimatology Palaeoecology
Vol. No. 478
Page No. 121-138
Date of Publication 15-Jul-2017
Name of the Publisher Elsevier
DOI <https://doi.org/10.1016/j.palaeo.2017.01.027>

Mathematics

Author(s) **Akhtar, Yasmeen** and **Maity, Soumen**.
Title Covering Arrays on Product Graphs
Name of the Journal Graphs and Combinatorics
Vol. No. 33
Issue No. 04
Date of Publication July-2017
Name of the Publisher Springer
DOI <https://doi.org/10.1007/s00373-017-1800-9>

Author(s) **Kaipa, Krishna**.
Title Deep Holes and MDS Extensions of Reed–Solomon Codes
Name of the Journal IEEE Transactions on Information Theory
Vol. No. 63
Issue No. 8
Page No. 4940 - 4948
Date of Publication 19-May-2017
Name of the Publisher IEEE
DOI [10.1109/TIT.2017.2706677](https://doi.org/10.1109/TIT.2017.2706677)

Physics

Author(s) **Mahesh, T. S.; Sudheer Kumar, C. S. and Bhosale, Udaysinh T.**
Title Quantum Correlations in NMR Systems
Name of the Journal Lectures on General Quantum Correlations and their Applications, Part of the Quantum Science and Technology book series (QST)
Page No. 499-516
Date of Publication 25-Jun-2017
Name of the Publisher Springer
DOI https://doi.org/10.1007/978-3-319-53412-1_23

Author(s) **Golling, T.; Hance, M.; Harris, P.; Mangano, M.L.; McCullough, M.; Moortgat, F.; Schwaller, P.; Torre, R. and Thalapillil, A.**
Title Chapter 3: Beyond the Standard Model Phenomena
Name of the Journal CERN Yellow Reports: Monographs
Vol. No. 03
Page No. 441-634
Date of Publication 22-Jun-2017
Name of the Publisher CERN, CH-1211 Geneva 23, Switzerland
DOI <http://cds.cern.ch/record/2270978/files/CERN-2017-003-M.pdf>

Author(s) Ghule, S.S.; Garde, C.S.; Ramakrishnan, S.; **Singh, S.;** Rajarajan, A.K.; Laad, Meena and **Karmakar, Koushik.**
Title Synthesis, magnetic and electrical properties of R₃AlC_x (R = Ce, Pr and Nd)
Name of the Journal Physica B: Condensed Matter
Vol. No. 521
Page No. 168-174
Date of Publication 15-Sept-2017
Name of the Publisher Elsevier
DOI <https://doi.org/10.1016/j.physb.2017.06.080>

Author(s) **Chaturvedi, Smita;** Shyam, Priyank; **Bag, Rabindranath;** Shirolkar, Mandar M.; **Kumar, Jitender;** **Kaur, Harleen;** **Singh, Surjeet;** Awasthi, A. M. and **Kulkarni, Sulabha.**
Title Nanosize effect: Enhanced compensation temperature and existence of magnetodielectric coupling in SmFeO₃
Name of the Journal Physical Review B
Vol. No. 96
Issue No. 2
Date of Publication 24-Jul-2017
Name of the Publisher American Physical Society.
DOI <https://doi.org/10.1103/PhysRevB.96.024434>

Author(s) Harikrishnan. K.P.; Misra, R. and **Ambika, G.**
Title Is a hyperchaotic attractor superposition of two multifractals?
Name of the Journal Chaos, Solitons & Fractals
Vol. No. 103
Page No. 450-459
Date of Publication 10-Jul-2017
Name of the Publisher Elsevier
DOI <https://doi.org/10.1016/j.chaos.2017.06.031>

Author(s) **Pande, Varad R.; Bhole, Gaurav; Khurana, Deepak and Mahesh, T. S.**
Title Strong algorithmic cooling in large star-topology quantum registers
Name of the Journal Physical Review A
Vol. No. 96
Issue No. 01
Date of Publication 25-Jul-2017
Name of the Publisher American Physical Society
DOI <https://doi.org/10.1103/PhysRevA.96.012330>

Author(s) Baral, P. R.; Ahmed, N.; **Kumar, J.; Nair, S. and Nath, R.**
Title Synthesis and physical properties of spin-1 honeycomb lattice Pb6Ni9 (TeO6)(5)
Name of the Journal Journal of Alloys and Compounds
Vol. No. 711
Page No. 568-572
Date of Publication 15-Jul-2017
Name of the Publisher Elsevier
DOI <https://doi.org/10.1016/j.jallcom.2017.04.010>

Author(s) **Pande, Varad R.** and Shaji, Anil
Title Minimum disturbance rewards with maximum possible classical correlations
Name of the Journal Physics Letters A
Vol. No. 381
Issue No. 25 & 26
Page No. 2045-2049
Date of Publication 12-Jul-2017
Name of the Publisher Elsevier
DOI <https://doi.org/10.1016/j.physleta.2017.04.036>

Author(s) **Karmakar, Koushik; Bag, Rabindranath;** Skoulatos, Markos; Rüegg, Christian and **Singh, Surjeet.**
Title Impurities in the weakly coupled quantum spin chains Sr₂CuO₃ and SrCuO₂
Name of the Journal Physical Review B
Vol. No. 95
Issue No. 23
Date of Publication 28-Jun-2017
Name of the Publisher American Physical Society.
DOI <https://doi.org/10.1103/PhysRevB.95.235154>

Author(s) Arumugam, S.; Ghosh, Subrata; **Ghosh, Arup; Devarajan, U.;** Kannan, M.; Govindaraj, L. and Mandal, Kalyan.
Title Effect of hydrostatic pressure on the magnetic, exchange bias and magnetocaloric properties of Ni_{45.5}Co₂Mn_{37.5}Sn₁₅
Name of the Journal Journal of Alloys and Compounds
Vol. No. 712
Page No. 714-719
Date of Publication 25-Jul-2017
Name of the Publisher Elsevier
DOI <https://doi.org/10.1016/j.jallcom.2017.04.127>
