



New Publications of  
Faculty, Scientists and  
Students of IISER Pune.

June 2015

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## Biology

Author(s) Pahuja, Kanika Bajaj; Wang, Jinzhi; Blagoveshchenskaya, Anastasia; Lim, Lillian; **Madhusudhan, M. S.**; Mayinger, Peter; Schekman, Randy  
Title Phosphoregulatory protein 14-3-3 facilitates SAC1 transport from the endoplasmic reticulum.  
Name of the Journal Proceedings of the National Academy of Sciences of the United States of America  
Volume No. 112  
Issue No. 25  
Page No. E3199-E3206  
Date of Publication 23-JUN-2015  
Name of the Publisher National Academy of Sciences  
DOI 10.1073/pnas.1509119112

Author(s) **Holkar, Sachin S; Kamerkar, Sukrut C.** and **Pucadyil, Thomas J.**  
Title Spatial Control of Epsin-induced Clathrin Assembly by Membrane Curvature.  
Name of the Journal Journal of Biological Chemistry  
Volume No. 290  
Issue No. 23  
Page No. 14267-14276  
Date of Publication 05-JUN-2015  
Name of the Publisher American Society Biochemistry Molecular Biology  
DOI 10.1074/jbc.M115.653394s

Author(s) Kamra, A. K. and **Nair, A. A.**  
Title The impact of the Western Ghats on lightning activity on the western coast of India.  
Name of the Journal Atmospheric Research  
Volume No. 160  
Page No. 82-90  
Date of Publication 15-JUN-2015  
Name of the Publisher Elsevier Science  
DOI 10.1016/j.atmosres.2015.03.006

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Author(s) Katwate, Unmesh; Raghavan, Rajeev and **Dahanukar, Neelesh**  
Title The identity of Hamilton's Ticto Barb, *Pethia ticto* (Teleostei: Cyprinidae).  
Name of the Journal Zootaxa  
Volume No. 3964  
Issue No. 4  
Page No. 401-418  
Date of Publication 04-JUN-2015  
Name of the Publisher Magnolia Press  
DOI <http://biotaxa.org/Zootaxa/article/view/zootaxa.3964.4.1>

Author(s) **Karve, S. M.; Daniel, S.; Chavhan, Y. D.; Anand, A.; Kharola, S. S. and Dey, S.**  
Title *Escherichia coli* populations in unpredictably fluctuating environments evolve to face novel stresses through enhanced efflux activity.  
Name of the Journal Journal of Evolutionary Biology  
Volume No. 28  
Issue No. 5  
Page No. 1131-1143  
Date of Publication MAY-2015  
Name of the Publisher Wiley-Blackwell  
DOI [10.1111/jeb.12640](https://doi.org/10.1111/jeb.12640)

Author(s) **Subhedar, N. K.**  
Title Why is 'dissection' such a dirty word?.  
Name of the Journal Current Science  
Volume No. 108  
Issue No. 9  
Page No. 1577-1578  
Date of Publication 10-MAY-2015  
Name of the Publisher Indian Academy of Science  
URL <http://www.currentscience.ac.in/Volumes/108/09/1577.pdf>

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# Chemistry

- Author(s) **Gaikwad, Pramod; Devendrachari, Mruthyunjayachari Chattanahalli; Thimmappa, Ravikumar; Paswan, Bhuneshwar; Kottaichamy, Alagar Raja; Kotresh, Harish Makri Nimbegondi and Thotiyal, Musthafa Ottakam**
- Title Galvanic Cell Type Sensor for Soil Moisture Analysis
- Name of the Journal Analytical Chemistry
- Date of Publication 22-JUN-2015
- Name of the Publisher American Chemical Society
- DOI 10.1021/acs.analchem.5b01653
- 
- Author(s) **Saha, Debasis; Supekar, Shreyas and Mukherjee, Arnab**
- Title Distribution of Residence Time of Water around DNA Base Pairs: Governing Factors and the Origin of Heterogeneity
- Name of the Journal Journal of Physical Chemistry B
- Date of Publication 20-MAY-15
- Name of the Publisher American Chemical Society
- DOI 10.1021/acs.jpcc.5b03553
- 
- Author(s) **Mullangi, Dinesh; Nandi, Shyamapada; Shalini, Sorout; Sreedhala, Sheshadri; Vinod, Chathakudath P. and Vaidhyanathan, Ramanathan**
- Title Pd loaded amphiphilic COF as catalyst for multi-fold Heck reactions, C-C couplings and CO oxidation
- Name of the Journal Scientific Reports
- Volume No. 5
- Article No. 10876
- Date of Publication 09-JUN-2015
- Name of the Publisher Nature Publishing
- DOI 10.1038/srep10876
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- Author(s) **Chaudhury, Srabanti**
- Title Modeling the effect of transcriptional noise on switching in gene networks in a genetic bistable switch.
- Name of the Journal Journal of Biological Physics
- Volume No. 41
- Issue No. 3
- Page No. 235-246
- Date of Publication JUN-2015
- Name of the Publisher Springer
- DOI 10.1007/s10867-015-9375-2

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Author(s) **Singh, Santosh K. and Das, Alope**  
Title The  $n \rightarrow \pi^*$  interaction: a rapidly emerging non-covalent interaction  
Name of the Journal Physical Chemistry Chemical Physics  
Volume No. 17  
Issue No. 15  
Page No. 9596-9612  
Date of Publication 03-MAR-2015  
Name of the Publisher Royal Society of Chemistry  
DOI 10.1039/C4CP05536E

Author(s) **Manna, Biplab;** Anothumakkool, Bihag; **Desai, Aamod V.;**  
**Samanta, Partha;** Kurungot, Sreekumar and **Ghosh, Sujit K.**  
Title Coherent Fusion of Water Array and Protonated Amine in a Metal-Sulphate Based Coordination Polymer for Proton Conduction.  
Name of the Journal Inorganic Chemistry  
Volume No. 54  
Issue No. 11  
Page No. 5366-5371  
Date of Publication 18-MAY-2015  
Name of the Publisher American Chemical Society  
DOI 10.1021/acs.inorgchem.5b00416

Author(s) **Nagarkar, Sanjog S.;** **Desai, Aamod V.** and **Ghosh, Sujit K.**  
Title A Nitro-Functionalized Metal–Organic Framework as a Reaction-Based Fluorescence Turn-On Probe for Rapid and Selective H<sub>2</sub>S Detection  
Name of the Journal Chemistry: A European Journal  
Volume No. 21  
Issue No. 28  
Page No. 9994–9997  
Date of Publication 10-JUN-2015  
Name of the Publisher Wiley-VCH  
DOI 10.1002/chem.201501043

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Author(s) **Mukherjee, Soumya; Desai, Aamod V.; Inamdar, Arif I. ;  
Manna, Biplob and Sujit K. Ghosh**  
Title Selective Detection of 2,4,6-Trinitrophenol (TNP) by  
a  $\pi$ -Stacked Organic Crystalline Solid in Water  
Name of the Journal Crystal Growth and Design  
Volume No. 15  
Issue No. 7  
Page No. 3493–3497  
Date of Publication 01-JUN-2015  
Name of the Publisher American Chemical Society  
DOI 10.1021/acs.cgd.5b00578

Author(s) **Tandon, Bharat; Ashok, Aswathi and Nag, Angshuman**  
Title Colloidal transparent conducting oxide nanocrystals: A new  
infrared plasmonic material.  
Name of the Journal Pramana- Journal of Physics  
Volume No. 84  
Issue No. 6  
Page No. 1087-1098  
Date of Publication JUN-2015  
Name of the Publisher Indian Academy of Science  
DOI 10.1007/s12043-015-1008-6

## Mathematics

Author(s) **Akhtar, Yasmeen; Maity, Soumen and Chandrasekharan,  
Reshma C**  
Title Covering Arrays of Strength Four and Software Testing.  
Name of the Book Mathematics and Computing  
Book Series Springer Proceedings in Mathematics and Statistics  
Volume No. 139  
Pages 391-398  
Date of Publication 2015  
Name of the Publisher Springer

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# Physics

Author(s) **Karmakar, Koushik and Singh, Surjeet**  
Title Finite-size effects in the quasi-one-dimensional quantum magnets Sr<sub>2</sub>CuO<sub>3</sub>, Sr<sub>2</sub>Cu<sub>0.99</sub>M<sub>0.01</sub>O<sub>3</sub> (M=Ni, Zn), and SrCuO<sub>2</sub>.  
Name of the Journal Physical Review B  
Volume No. 91  
Issue No. 224401  
Date of Publication 01-JUN-2015  
Name of the Publisher American Physical Society  
DOI 10.1103/PhysRevB.91.224401

Author(s) **Sharma, S. et al.**  
Title Search for a standard model Higgs boson produced in association with a top-quark pair and decaying to bottom quarks using a matrix element method.  
Name of the Journal European Physical Journal C  
Volume No. 75  
Issue No. 6  
Date of Publication 09-JUN-2015  
Name of the Publisher SPRINGER  
DOI 10.1140/epjc/s10052-015-3454-1

Author(s) **Sharma, S. et al.**  
Title Combined Measurement of the Higgs Boson Mass in pp Collisions at  $\sqrt{s}=7$  and 8 TeV with the ATLAS and CMS Experiments.  
Name of the Journal Physical Review Letters  
Volume No. 114  
Issue No. 19  
Date of Publication 15-MAY-2015  
Name of the Publisher American Physical Society  
DOI 10.1103/PhysRevLett.114.191803

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