

## **Curriculum Vitae (06/2016)**

Dr. Sujit Kumar Ghosh

Associate Professor, Department of Chemistry  
Indian Institute of Science Education and Research (IISER)  
Pune,

Dr. Homi Bhabha Road, , Pune- 411008, India

Phone: +91 20 2590 8076

E-mail: [sghosh@iiserpune.ac.in](mailto:sghosh@iiserpune.ac.in)/[sghoshchem@gmail.com](mailto:sghoshchem@gmail.com)

Webpage: <http://www.iiserpune.ac.in/~sghosh/>



### **Academic and Professional Backgrounds:**

2015 – Associate Professor

2009 – 2015 Assistant Professor, IISER Pune, India

2006 - 2009; JSPS and CREST Postdoctoral Research Fellow, Kyoto University, Japan. ( PI : Prof. Susumu Kitagawa)

2006: Ph. D. in Chemistry, 2006, Indian Institute of Technology (IIT) Kanpur, India. (Thesis supervisor: Prof. Parimal K. Bharadwaj)

2001: M. Sc. in Chemistry (Inorganic Chemistry), Banaras Hindu University (BHU), Varanasi, India.

1999: B. Sc. (Honors) in Chemistry with Mathematics/Physics, Burdwan University, W.B., India.

### **Major Research Areas:**

# Metal-Organic Frameworks (MOFs)/Porous Coordination Polymers (PCPs)

# Structure-property correlation studies of dynamic frameworks.

# Functional studies of framework based materials like chemical separation, gas storage, conductivity, sensing etc.

# Materials for chemical industry, energy and environmental applications

## **Awards/Fellowships/Honors:**

- 2015 - Editorial Board Member, [Scientific Reports](#), a journal of NPG.
- 2015: IUPAC Travel Award: Busan, Korea, IUPAC-2015.
- 2014: New Talent: Asia-Pacific by Dalton Transactions (RSC).
- 2013: [INSA Young Scientist Award](#).
- 2013: Alkyl Amines-ICT Foundation Day Young Scientist Award.
- 2012: NASI-Young Scientist Platinum Jubilee Award.
- 2012-15: Young Associate of the Indian Academy of Sciences.
- 2011: DAE Research award for Young Scientists.
- 2009: Newton International Fellowship (UK), (Offer declined).
- 2007-09: JSPS Post Doctoral Research Fellowship (Japan).
- 2006 - 07: CREST Post Doctoral Research Fellowship (Japan).
- 2001 - 06: Junior and Senior Research Fellowship by CSIR, India.

## **Courses taught to BS-MS, Int. PhD and Ph.D students:**

Transition Metal Chemistry  
Main Group Chemistry  
Inorganic Chemistry ( Basic)  
Chemistry Lab II (Inorganic Chemistry)  
Advanced Inorganic Chemistry Lab

## **Research group:**

Six Ph.D students, three Int. Ph.D, and one undergraduate students.  
Ph. D Completed: Three

## **List of Publications (Sujit K. Ghosh)**

### **A. Selected Publications**

### **B. Full list of Publications**

#### **A. Selected publications:**

25. Water Stable Cationic Metal-Organic Framework as Dual Adsorbent of Oxo-Anion Pollutants

Aamod V. Desai, Biplab Manna, Avishek Karmakar, Amit Sahu and Sujit K. Ghosh  
*Angew. Chem. Int. Ed.* **2016**, 55, 0000-0000. (DOI: 10.1002/anie.201600185)

24. An Ultrahydrophobic Fluorous Metal-organic Framework As A Promising Platform To Tackle Marine Oil Spills

S. Mukherjee, A.M. Kansara, D. Saha, R. Gonnade, D. Mullangi, B. Manna, A. V. Desai, S. H. Thorat, P. S. Singh, A. Mukherjee, and S. K. Ghosh  
*Chem. Eur. J.* **2016**, 22, 0000-0000

23. Bimodal functionality in a porous covalent triazine framework by rational integration of electron rich and deficient pore surface

Avishek Karmakar, Amrit Kumar, Abhijeet K. Chaudhari, Partha Samanta, Aamod V. Desai, Rajamani Krishna and Sujit K. Ghosh  
*Chem. Eur. J.* **2016**, 22, 4931-4937

22. A Post-synthetically Modified MOF for Selective and Sensitive Aqueous Phase Detection of Highly Toxic Cyanide ion

Avishek Karmakar, Naveen Kumar, Partha Samanta, Aamod V. Desai and Sujit K. Ghosh  
*Chem. Eur. J.* **2016**, 22, 864-868.

21. High Hydroxide Conductivity in a Chemically Stable Crystalline Metal-Organic Framework Containing Water-Hydroxide Supramolecular Chain

Sanjog S. Nagarkar, Bihag Anothumakkool, Aamod V. Desai, Mandar M. Shirolkar, Sreekumar Kurungotb, and Sujit K. Ghosh  
*Chemical Commun.* **2016**, DOI: 10.1039/C6CC04436K

20. Harnessing Lewis Acidic Open Metal Sites of Metal-organic Frameworks: Foremost Route to Achieve Highly Selective Benzene Sorption over Cyclohexane

Soumya Mukherjee, Biplab Manna, Aamod V. Desai, Yuefeng Yin, Rajamani Krishna, Ravichandar Babarao, and Sujit K. Ghosh  
*Chem. Commun.* **2016**, DOI: 10.1039/C6CC03015G

19. A  $\pi$ -electron Deficient Diaminotriazine Functionalized MOF for Selective Sorption of Benzene over Cyclohexane  
Biplab Manna, Soumya Mukherjee, Aamod V. Desai, Shivani Sharma, Rajamani Krishna, and Sujit K. Ghosh  
*Chem. Commun.* **2015**, *51*, 15386-15389
18. Nitro (-NO<sub>2</sub>) Functionalized Metal-Organic Framework as a Reaction based Fluorescence Turn-On Probe for Rapid and Selective H<sub>2</sub>S Detection  
Sanjog S. Nagarkar, Aamod V. Desai, and Sujit K. Ghosh  
*Chem. Eur. J.* **2015**, *21*, 9994-9997.
17. Amide Functionalized Dynamic Metal-Organic Framework Exhibiting Visual Colorimetric Anion Exchange and Selective uptake of Benzene over Cyclohexane  
Avishek Karmakar, Aamod V. Desai, Biplab Manna, Biplab Joarder and Sujit K. Ghosh  
*Chem. Eur. J.* **2015**, *21*, 7071-7076.
16. Selective and Sensitive Aqueous Phase Detection of TNP (2,4,6- trinitro phenol) by an Amine Functionalized Metal-organic Framework  
Biplab Joarder, Aamod V. Desai, Partha Samanta, Soumya Mukherjee and Sujit K. Ghosh  
*Chem. Eur. J.* **2015**, *21*, 965 -969.
15. Aqueous Phase Nitric Oxide Detection by an Amine Decorated Metal-Organic Framework  
Aamod V. Desai, Partha Samanta, Biplab Manna and Sujit K. Ghosh  
*Chem. Commun.* **2015**, *51*, 6111-6114.
14. Selective and Sensitive Aqueous Phase Detection of TNP (2,4,6- trinitro phenol) by an Amine Functionalized Metal-organic Framework  
Biplab Joarder, Aamod V. Desai, Partha Samanta, Soumya Mukherjee and Sujit K. Ghosh  
*Chem. Eur. J.* **2015**, *21*, 965 – 969.
13. Two-in-one: Inherent Anhydrous and Water-assisted High Proton Conduction in a 3D Metal-organic Framework  
Sanjog S. Nagarkar, Sreekuttan M. Unni, Amitosh Sharma, Sreekumar Kurungot, and Sujit K. Ghosh  
*Angew. Chem. Int. Ed.* **2014**, *53*, 2683-2642. (Times cited: > 50 )
12. Guest-Responsive Function of a Dynamic Metal-Organic Framework with  $\pi$  Lewis Acidic Pore Surface  
Biplab Joarder, Soumya Mukherjee, Abhijeet K. Chaudhari, Aamod V. Desai, Biplab Manna, and Sujit K. Ghosh  
*Chem. Eur. J.* **2014**, *20*, 15303–15308.
11. Anion-Responsive Tunable Bulk Phase Homochirality and Luminescence of a Cationic Framework  
Biplab Manna, Biplab Joarder, Aamod V. Desai, Avishek Karmakar and Sujit K. Ghosh  
*Chem. Eur. J.* **2014**, *20*, 12399 – 12404.

10. Framework-Flexibility Driven Selective Sorption of *p*-Xylene over Other Isomers by a Dynamic Metal-Organic Framework  
Soumya Mukherjee, Biplab Joarder, Biplab Manna, Aamod V. Desai, Abhijeet K. Chaudhari and Sujit K. Ghosh  
*Sci. Rep.* **2014**, 4, doi:10. 1038/srep05761.
9. Fluorescent metal-organic framework for highly selective detection of nitroexplosive in aqueous phase  
Sanjog S. Nagarkar, Aamod V. Desai, and Sujit K. Ghosh  
*Chem. Commun.* **2014**, 50, 8915-8918. (Times cited: > 60 )
8. Metal-organic framework based highly selective fluorescence *turn-on* probe for hydrogen sulphide  
Sanjog S. Nagarkar, Tanmoy Saha, Aamod V. Desai, Pinaki Talukdar and Sujit K. Ghosh  
*Sci. Rep.* **2014**, 4, doi:10.1038/srep07053.
7. Highly Selective Detection of Nitro-Explosive by a Luminescent Metal-Organic Framework.  
Sanjog S. Nagarkar, Biplab Joarder, Abhijeet K. Chaudhari, Soumya Mukherjee and Sujit K. Ghosh  
*Angew. Chem. Int. Ed.* **2013**, 52, 2881-2885. (Times cited: >250)
6. Amino Acid Based Dynamic Metal-Biomolecule Framework  
Biplab Joarder, Abhijeet K. Chaudhari, Sanjog S. Nagarkar, Biplab Manna, and Sujit K. Ghosh  
*Chem. Eur. J.* **2013**, 19, 11178-11183.
5. Dynamic Structural Behavior and Anion-Responsive Tunable Luminescence of a Flexible Cationic Metal-Organic Framework  
Biplab Manna, Abhijeet K. Chaudhari, Biplab Joarder, Avishek Karmakar and Sujit K. Ghosh  
*Angew. Chem. Int. Ed.* **2013**, 52, 998-1002. (Times cited: > 70 )
4. Porous Coordination Polymer having Bond Switching Mechanism Showing Reversible Structural and Functional Transformations  
Sujit K. Ghosh, Wakako Kaneko, Daisuke Kiriya, Masaaki Ohba, Susumu Kitagawa  
*Angew. Chem. Int. Ed.* **2008**, 47, 8843-8847.  
(Selected as a Hot Paper by the Editors)
3. A Dynamic, Isocyanurate-Functionalized Porous Coordination Polymer  
Sujit K. Ghosh, Sareeya Bureekaew, Susumu Kitagawa  
*Angew. Chem. Int. Ed.* **2008**, 47, 3403-3406.  
(Selected as a Hot Paper by the Editors)
2. Reversible Topochemical Transformation of a Soft Crystal of a Coordination Polymer  
Sujit K. Ghosh, Jie-Peng Zhang, Susumu Kitagawa  
*Angew. Chem. Int. Ed.* **2007**, 46, 7965-7968.

1. A Novel Dodecameric Water Cluster Built Around a Cyclic Quasi-Planar Hexameric Core in an Organic Supramolecular Complex of Cryptand  
Sujit K. Ghosh and Parimal K. Bharadwaj  
*Angew. Chem. Int. Ed.* **2004**, *43*, 3577-3580.

**(Book Chapters and Reviews):**

5. Ionic metal-organic frameworks (iMOFs): Design principles and applications

Avishek Karmakar, Aamod V. Desai, and Sujit K. Ghosh  
*Coord. Chem. Rev.* **2016**, DOI: 10.1016/j.ccr.2015.08.007

4. Neutral N-donor ligand based flexible metal-organic frameworks

Biplab Manna, Aamod V. Desai, and Sujit K. Ghosh  
*Dalton Trans.* **2016**, (Perspective) DOI: 10.1039/c5dt03443d

3. Book Chapter: Cadmium Based Catalysts in *Sustainable Catalysis* (ed M. North)

Soumya Mukherjee and Sujit K. Ghosh  
**Royal Society of Chemistry, 2015 ISSN:** 1757-7039

2. Focus Review: Stimulus Responsive Metal-Organic Frameworks

Sanjog S. Nagarkar, Aamod V. Desai, and Sujit K. Ghosh  
*Chem. Asian J.* **2014**, *9*, 2358-2376

1. Book Chapter: Surface Pore Engineering of Porous Coordination Polymers in *Metal-Organic*

*Frameworks: Design and Application* (ed L. R. MacGillivray)  
Sujit K. Ghosh and Susumu Kitagawa  
**John Wiley & Sons, 2010.** doi: 10.1002/9780470606858.ch5.

**B. Full list of publications:**

**(Work from IISER Pune)**

**2016**

85. Water Stable Cationic Metal-Organic Framework as Dual Adsorbent of Oxo-Anion Pollutants

Aamod V. Desai, Biplab Manna, Avishek Karmakar, Amit Sahu and Sujit K. Ghosh  
*Angew. Chem. Int. Ed.* **2016**, *55*, 0000-0000. (DOI: 10.1002/anie.201600185)

84. An Ultrahydrophobic Fluorous Metal-organic Framework As A Promising Platform To Tackle Marine Oil Spills

S. Mukherjee, A.M. Kansara, D. Saha, R. Gonnade, D. Mullangi, B. Manna, A. V. Desai, S. H. Thorat, P. S. Singh, A. Mukherjee, and S. K. Ghosh

[Chem. Eur. J. 2016, 22, 0000-0000](#)

83. Bimodal functionality in a porous covalent triazine framework by rational integration of electron rich and deficient pore surface

Avishek Karmakar, Amrit Kumar, Abhijeet K. Chaudhari, Partha Samanta, Aamod V. Desai, Rajamani Krishna and Sujit K. Ghosh

[Chem. Eur. J. 2016, 22, 4931-4937](#)

82. A Post-synthetically Modified MOF for Selective and Sensitive Aqueous Phase Detection of Highly Toxic Cyanide ion

Avishek Karmakar, Naveen Kumar, Partha Samanta, Aamod V. Desai and Sujit K. Ghosh

[Chem. Eur. J. 2016, 22, 864-868.](#)

**Highlighted in the page of HOT TOPICs by Wiley VCH.**

81. High Hydroxide Conductivity in a Chemically Stable Crystalline Metal-Organic Framework Containing Water-Hydroxide Supramolecular Chain

Sanjog S. Nagarkar, Bihag Anothumakkool, Aamod V. Desai, Mandar M. Shirolkar, Sreekumar Kurungotb, and Sujit K. Ghosh

[Chemical Commun, 2016, DOI: 10.1039/C6CC04436K](#)

80. Harnessing Lewis Acidic Open Metal Sites of Metal-organic Frameworks: Foremost Route to Achieve Highly Selective Benzene Sorption over Cyclohexane

Soumya Mukherjee, Biplab Manna, Aamod V. Desai, Yuefeng Yin, Rajamani Krishna, Ravichandar Babarao, and Sujit K. Ghosh

[Chem. Commun. 2016, DOI: 10.1039/C6CC03015G](#)

79. A Bifunctional Metal-organic Framework: Striking CO<sub>2</sub> Selective Sorption Features with Guest-Induced Luminescence Tuning Behaviour

Soumya Mukherjee, Aamod V. Desai, Yogeshwar D. More and Sujit K. Ghosh

[ChemPlusChem 2016, DOI: 10.1002/cplu.201600138](#)

78. Engineering Metal-Organic Frameworks For Aqueous Phase 2,4,6-Trinitrophenol (TNP) Sensing

[CrystEngComm, 2016, 0000 \(DOI: 10.1039/C6CE00244G\) \(Highlight\)](#)

77. OFET based explosive sensors using diketopyrrolopyrrole and metal organic framework composite active channel material

Sandeep G. Surya, Sanjog S. Nagarkar, Sujit K. Ghosh, Prashant Sonar, V. Ramgopal Rao

[Sensors and Actuators B: Chemical 2016, 223, 114-122](#)

76. Neutral N-donor ligand based flexible metal-organic frameworks

Biplab Manna, Aamod V. Desai, and Sujit K. Ghosh

[Dalton Trans. 2016, 2016, 45, 4060-4072 \(Perspective\)](#)

**[\(Highlighted in Atlas of Science; Listed among Dalton Transaction's 2016 HOT articles.\)](#)**

75. Ionic metal-organic frameworks (iMOFs): Design principles and applications  
Avishek Karmakar, Aamod V. Desai, and Sujit K. Ghosh  
[Coord. Chem. Rev. 2016, 307, 313-341](#)

## 2015

74. A  $\pi$ -electron Deficient Diaminotriazine Functionalized MOF For Selective Sorption of Benzene Over Cyclohexane  
Biplab Manna, Soumya Mukherjee, Aamod V. Desai, Shivani Sharma, Rajamani Krishna, and Sujit K. Ghosh  
[Chem. Commun. 2015, 51, 15386-15389](#)

73. Cadmium Based Catalysts in *Sustainable Catalysis* (Book Chapter, Editor: Prof. Michael North)  
Book Title: Sustainable Catalysis: With Non-endangered Metals, Part 2  
Chapter 17  
Soumya Mukherjee and Sujit K. Ghosh  
[Royal Society of Chemistry, 2015 ISSN: 1757-7039](#)

72. Selective Detection of 2,4,6-Trinitrophenol (TNP) by a  $\pi$ -Stacked Organic Crystalline Solid in Water  
Soumya Mukherjee, Aamod V. Desai, Arif I. Inamdar, Biplab Manna, and Sujit K. Ghosh.  
[Cryst. Growth Des., 2015, 15, 3493-3497.](#)

71. Nitro (-NO<sub>2</sub>) Functionalized Metal-Organic Framework as a Reaction based Fluorescence Turn-On Probe for Rapid and Selective H<sub>2</sub>S Detection  
Sanjog S. Nagarkar, Aamod V. Desai, and Sujit K. Ghosh  
[Chem. Eur. J. 2015, 21, 9994-9997.](#)  
[\(Highlighted in Atlas of Science\)](#)

70. Coherent Fusion of Water Array and Protonated Amine in a Metal-Sulphate Based Coordination Polymer for Proton Conduction  
Biplab Manna, Bihag Anothumakkool, Aamod V. Desai, Partha Samanta, Sreekumar Kurungot, Sujit K. Ghosh  
[Inorg. Chem. 2015, 54, 5366-5371.](#)

69. Exploitation of Guest Accessible Aliphatic Amine Functionality of a Metal-Organic Framework for Selective Detection of 2,4,6-Trinitrophenol (TNP) in Water  
Soumya Mukherjee, Aamod V. Desai, Biplab Manna, Arif I. Inamdar and Sujit K. Ghosh  
[Cryst. Growth Des. 2015, 15, 4627-4634](#)

67. Amide Functionalized Dynamic Metal-Organic Framework Exhibiting Visual Colorimetric Anion Exchange and Selective uptake of Benzene over Cyclohexane  
Avishek Karmakar, Aamod V. Desai, Biplab Manna, Biplab Joarder and Sujit K. Ghosh  
[Chem. Eur. J. 2015, 21, 7071-7076.](#)

66. Exploiting Framework Flexibility of a Metal-Organic Framework for Selective



Adsorption of Styrene over Ethylbenzene  
Soumya Mukherjee, Biplab Joarder, Aamod V. Desai, Biplab Manna, Rajamani Krishna,  
and Sujit K. Ghosh  
[Inorg. Chem. 2015, 54, 4403-4408](#)

65. Chiral Biomolecule Based Dodecanuclear Dysprosium(III)-  
Copper(II) Clusters: Structural Analyses and Magnetic Properties  
Biplab Joarder, Soumya Mukherjee, Mahendra Patil, Shufang Xue, Jinkui Tang, and  
Sujit K. Ghosh  
[Inorg. Chem. Front. 2015, 2, 854-859.](#)

65. Aqueous Phase Nitric Oxide Detection by an Amine Decorated Metal-Organic  
Framework  
Aamod V. Desai, Partha Samanta, Biplab Manna and Sujit K. Ghosh  
[Chem. Commun. 2015, 51, 6111-6114](#)

64. Aqueous phase selective 2,4,6-trinitrophenol detection via fluorescent metal-organic  
framework with pendant recognition site  
Sanjog S. Nagarkar, Aamod V. Desai, Partha Samanta, and Sujit K.  
Ghosh  
[Dalton Trans. 2015, 44, 15175-15180.](#)  
(Special issue: New Talent: Asia-Pacific; [Highlighted in Atlas of Science](#) )

63. Single-Crystal-to-Single-Crystal Transformation of an Anion Exchangeable Dynamic  
Metal-Organic Framework  
Biplab Manna, Aamod V. Desai, Naveen Kumar, Avishek Karmakar and Sujit K. Ghosh  
[CrystEngComm 2015, 17, 8796-8800.](#)

62. Recent Progress in the Realm of Homonuclear Ln<sub>6</sub> Single Molecule Magnets:  
Structural Overview and Synthetic Approaches (*Review Article*)  
Soumya Mukherjee and Sujit K. Ghosh  
[Proc. Indian Natn. Sci. Acad. 2015, 81, 357-379. \(Invited Article\)](#)

61. Reversible structural transformations in a Co(II) based 2D dynamic metal-organic  
framework showing selective solvent uptake  
Sanjog S. Nagarkar and Sujit K. Ghosh  
[J. Chem. Sci. 2015, 127, 627-633. \(Special issue\).](#)

60. Selective Anion Exchange and Tunable Luminescent Behaviours of MOF based  
Supramolecular Isomers  
Biplab Manna, Shweta Singh, Avishek Karmakar, Aamod V. Desai and Sujit K. Ghosh  
[Inorg. Chem. 2015, 54, 110-116](#)

59. Selective and Sensitive Aqueous Phase Detection of TNP (2,4,6- trinitro phenol) by  
an Amine Functionalized Metal-organic Framework  
Biplab Joarder, Aamod V. Desai, Partha Samanta, Soumya Mukherjee and Sujit K.  
Ghosh  
[Chem. Eur. J. 2015, 21, 965 -969](#)

**2014**

58. Two-in-one: Inherent Anhydrous and Water-assisted High Proton Conduction in a 3D Metal-Organic Framework  
Nagarkar, S. S.; Unni, S. M.; Sharma, A.; Kurungot, S.; Ghosh, S. K.  
[Angew. Chem. Int. Ed. 2014, 53, 2638-2642.](#)
57. Stimulus-Responsive Metal-Organic Frameworks  
Nagarkar, S. S.; Desai, A. V.; Ghosh, S. K.  
[Chem. Asian J. 2014, 9, 2358–2376. \(Focus Review\)](#)
56. Metal-Organic Framework Based Highly Selective Fluorescence *Turn-on* Probe for Hydrogen Sulphide  
Nagarkar, S. S.; Saha, T.; Desai, A. V.; Talukdar, P.; Ghosh, S. K.  
[Sci. Rep. 2014, 4, doi:10.1038/srep07053.](#)
55. Guest-Responsive Function of a Dynamic Metal-Organic Framework with  $\pi$ -Lewis Acidic Pore Surface  
Joarder, B.; Mukherjee, S.; Chaudhari, A. K.; Desai, A. V.; Manna, B.; Ghosh, S. K.  
[Chem. Eur. J. 2014, 20, 15303 – 15308.](#)
54. Framework-Flexibility Driven Selective Sorption of *p*-Xylene over Other Isomers by a Dynamic Metal-Organic Framework  
Mukherjee, S.; Joarder, B.; Manna, B.; Desai, A. V.; Chaudhari, A. K.; Ghosh, S. K.  
[Sci. Rep. 2014, DOI: 10.1038/srep05761.](#)
53. Anion-Responsive Tunable Bulk Phase Homochirality and Luminescence of a Cationic Framework  
Manna, B.; Joarder, B.; Desai, A. V.; Karmakar, A.; Ghosh, S. K.  
[Chem. Eur. J. 2014, 20, 12399–12404.](#)
52. Structures and Magnetic Properties of Two Analogous Dy<sub>6</sub> Wheels with Electron-Donation and -Withdrawal Effects  
Joarder, B.; Mukherjee, S.; Xue, S.; Tang, J.; Ghosh, S. K.  
[Inorg. Chem. 2014, 53, 7554–7560.](#)
51. Fluorescent Metal-Organic Framework for Highly Selective Detection of Nitro Explosive in Aqueous Phase  
Nagarkar, S. S.; Desai, A. V.; Ghosh, S. K.  
[Chem. Commun. 2014, 50, 8915-8918.](#)  
(Based on this paper listed in the top 10% of highly cited authors in RSC general chemistry portfolio of journals for articles published between 2013 and 2014)
50. Dynamic Metal-Organic Framework with Anion-Triggered Luminescence Modulation Behavior  
Karmakar, A.; Manna, B.; Desai, A. V.; Joarder, B.; Ghosh, S. K.  
[Inorg. Chem. 2014, 53, 12225–12227](#)
49. Capsule Voided Nanospace Confinement in a  $\pi$ -Stacked Supramolecular Organic Solid  
Chaudhari, A. K.; Sharma, A.; Mukherjee, S.; Joarder, B.; Ghosh, S. K.  
[CrystEngComm 2014, 16, 4691-4695. \(Special issue\)](#)

48. Guest Driven Structural Transformation Studies of a Luminescent Metal-Organic Framework

Manna, B.; Singh, S.; Ghosh, S. K.  
*J. Chem. Sci.* 2014, 1417–1422

47. Slow Magnetic Relaxation in an Asymmetrically Coupled Heptanuclear Dysprosium(III)-Nickel(II) Architecture

Mukherjee, S.; Joarder, B.; Xue, S.; Tang, J.; Ghosh, S. K.  
*Proc. Natl. Acad. Sci., India, Sect. A Phys. Sci.* 2014, 84, 151-156.

46. Gas Adsorption, Magnetism, and Single-Crystal to Single-Crystal Transformation Studies of a Three-Dimensional Mn(II) Porous Coordination Polymer

Agarwal, A.; Mukherjee, S.; Sañudo, E. C.; Ghosh, S. K.; Bharadwaj P. K.  
*Cryst. Growth Des.*, 2014, 14, 5585–5592

### **2013**

45. Structural Dynamism and Controlled Chemical Blocking/Unblocking of Active Coordination Space of a Soft Porous Crystal

Chaudhari, A. K.; Nagarkar, S. S.; Joarder, B.; Mukherjee, S.; Ghosh, S. K.  
*Inorg. Chem.* 2013, 52, 12784-12789.

44. Highly Selective Detection of Nitro-Explosive by a Luminescent Metal-Organic Framework.

Nagarkar, S. S.; Joarder, B.; Chaudhari, A. K.; Mukherjee, S.; Ghosh, S. K.  
*Angew. Chem. Int. Ed.* 2013, 52, 2881-2885.

(Highlighted in the most cited papers page in *Angew. Chem. Int. Ed.* journal's website [http://onlinelibrary.wiley.com/journal/10.1002/\(ISSN\)1521-3773/homepage/2002\\_mostcited.html](http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1521-3773/homepage/2002_mostcited.html) (among all published papers in 2013 or 2014; only communications: 2nd rank and all types of articles: 10th rank).

43. Amino Acid Based Dynamic Metal-Biomolecule Framework

Joarder, B.; Chaudhari, A. K.; Nagarkar, S. S.; Manna, B.; Ghosh, S. K.  
*Chem. Eur. J.* 2013, 19, 11178-1183.

Highlighted in the page of HOT TOPICs by Wiley VCH.

42. A Continuous  $\pi$ -Stacked Starfish Array of Two-Dimensional Luminescent MOF for Detection of Nitro Explosives

Chaudhari, A. K.; Nagarkar, S. S.; Joarder, B.; Ghosh, S. K.  
*Cryst. Growth Des.* 2013, 13, 3716-3721.

41. Bi-porous Metal-Organic Framework With Hydrophilic and Hydrophobic Channels: Selective Gas Sorption and Reversible Iodine Uptake Studies

Chaudhari, A. K.; Mukherjee, S.; Nagarkar, S. S.; Joarder, B.; Ghosh, S. K.  
*CrystEngComm*, 2013, 14, 9465-9471.

40. An Asymmetrically Connected Hexanuclear Dy<sup>III</sup><sub>6</sub> Cluster Exhibiting Slow Magnetic Relaxation

Mukherjee, S.; Chaudhari, A. K.; Xue, S.; Tang, J.; Ghosh, S. K.

*Inorganic Chemistry Communications* 2013, 35, 144-148.

39. Dynamic Structural Behavior and Anion-Responsive Tunable Luminescence of a Flexible Cationic Metal-Organic Framework

Manna, B.; Chaudhari, A. K.; Joarder, B.; Karmakar, A.; Ghosh, S. K.

*Angew. Chem. Int. Ed.* 2013, 52, 998-1002. (Highlighted: [Advances in Engineering](#))

## **2012**

38. Nitrate Bridged Pseudo Double Propeller Type Lanthanide (III)-Copper (II) Heterometallic Clusters: Syntheses, Structures, and Magnetic Properties

Chaudhari, A. K.; Joarder, B.; Riviere, E.; Rogez, G.; Ghosh, S. K.

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## **(Postdoctoral work)**

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### **Presentations at Conferences/Symposia:**

- "National Symposium on Emerging Trends in Chemistry (ETC-2016)" held in Department of Chemistry, North Eastern Hill University (NEHU), Shillong, 28-29 March, 2016.
- Inter-IISER chemistry meet during Dec 11-13, 2015 to be held in IISER Thiruvananthapuram
- "16<sup>th</sup> National Symposium on "Modern Trends in Inorganic Chemistry (MTIC-XVI)" held in Jadavpur University, 3-5 December, 2015.
- Workshop on "Supramolecular Chemistry: Concepts and Perspectives", arranged by Indian Academy of Sciences, Bangalore during 4-5<sup>th</sup> April, 2014 in the Department of Chemistry, MMV, BHU, Varanasi.
- "Brainstorming Session on Chemical Coating for Detection of Explosives" *Sponsored by* Office of Principal Scientific Advisor, New Delhi Venue: Department of Electrical Engineering, IIT Bombay on May 21<sup>st</sup>, 2014.
- Pre-Conference of 4<sup>th</sup> International Conference on Metal-Organic Frameworks and Open Framework Compounds (MOF2014), 27<sup>th</sup> September and 1<sup>st</sup> October in Osaka and Kobe, Japan.
- FICS-2014 (Frontiers in Chemical Sciences), IIT Guwahati, India, during December 4-6, 2014.
- "7<sup>th</sup> Biennial International Conference on Materials for Advanced Technologies ICMAT 2013, during 30<sup>th</sup> June to 5<sup>th</sup> July, 2013, in Singapore
- Brainstorming Session on Chemical Coating for Detection of Explosives, Sponsored by Office of Principal Scientific Advisor, New Delhi, May 21<sup>st</sup>, 2014, Department of Electrical Engineering, IIT Bombay.



- Workshop on "Supramolecular Chemistry: Concepts and Perspectives", by Indian Academy of Sciences, Bangalore 4-5<sup>th</sup> April, 2014 Department of Chemistry, MMV, BHU, Varanasi.
- 79th Annual meeting of the Indian Academy of Sciences, at Chandigarh, IISER-Mohali, 8-10 November, 2013.
- "Modern Trends in Inorganic Chemistry (MTIC-XV)" IIT Roorkee 13<sup>th</sup> -16<sup>th</sup> December, 2013.
- Alkyl Amines-ICT Foundation Day Young Scientist Award lecture, ICT Mumbai, 21<sup>st</sup> December, 2013.
- "Young Scientist Research Awardees Meet" (YSRAM) between December 26-27, 2012 at Bhabha Atomic Research Centre (BARC) Mumbai.
- Symposium on Structure and Dynamics Organized as part of the UK-India Education and Research Initiative (UKIERI) between December 10-12, 2012 at IISER Pune.
- "40 International Conference on Coordination Chemistry" (ICCC40), between September 9-13, 2012, at Valencia, Spain.
- "Advances in Pharmaceutical Research & Chemistry" between 22<sup>th</sup> and 24<sup>th</sup> March, 2012 at NITTTTR, Bhopal.
- "3<sup>rd</sup> Asian Conference on Coordination Chemistry" between 17<sup>th</sup> – 20<sup>th</sup> October, 2011 at New Delhi, India.
- "Past, Present and Future of Supramolecular Chemistry" (PPFSC-2011)" between 22<sup>th</sup> and 24<sup>th</sup> December, 2011. Agra, India.
- 3<sup>rd</sup> Inter IISER meeting February 20-21, 2011, IISER Mohali, India.
- IISER Pune/Göttingen Cooperation meeting 9<sup>th</sup> -12<sup>th</sup> December 2010, Göttingen, Germany.
- "Modern Trends in Inorganic Chemistry" (MTIC-XIII) from 7<sup>th</sup> – 10<sup>th</sup> December, 2009 at Indian Institute of Science, Bangalore.
- The Sixth International Conference on Inorganic Materials, 28-30 September, 2008, Dresden, Germany (Oral presentation).
- The Third International Symposium on Chemistry of Coordination Space (ISCCS) - 2007, December 9-12, 2007, Awaji Yumebutai International Conference Center, Awaji, Hyogo, Japan.

- 1st International Workshop on Protonics and Nano-Interface of Coordination Chemistry, 24<sup>th</sup> February, 2007, Kyoto, Japan. (Attended)
  
- 56<sup>th</sup> Japan Society of Coordination Chemistry Symposium, 17-19 September, 2006, Hiroshima University, Hiroshima, Japan.
  
- The Second International Symposium on Chemistry of Coordination Space (ISCCS) - 2006, 15-16 December, 2006, Fukuoka, Japan
  
- The Sixth National Symposium of the Chemical Research Society of India (CRSI). Feb. 6-8, 2004, Department of Chemistry, IIT Kanpur, India.
  
- 3<sup>rd</sup> Singapore-India Collaborative and Co-operative Chemistry Symposium. December 16-17, 2004, Department of Chemistry, IIT Kanpur, India (Attended)
  
- Modern Trends in Inorganic Chemistry (MTIC)-2003, 15-17 December, 2003 Department of Chemistry, IIT Bombay, Mumbai, India.