

## **Curriculum Vitae (06/2015)**

Dr. Sujit Kumar Ghosh

Associate Professor, Chemistry

Indian Institute of Science Education and Research (IISER)  
Pune,

Dr. Homi Bhabha Road, Pashan, Pune- 411021, India

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



### **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)

# Organic Crystalline Materials based on supramolecular and/covalent interactions.

# Structure-property correlation studies of dynamic frameworks.

# Functional studies 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, one Int. Ph.D, one project student and two undergraduate students.  
Ph. D Completed: Two

## **Publications:**

### **Citation Data (as of 01/06/2015)**

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**Sum of the Times Cited: > 2700**

**Average Citations per Article: ~45**

**h-index: 26**

**Number of Articles with citations > 200 (01), > 150 (03), > 100(12), > 50(18).**

**<http://www.researcherid.com/rid/C-4783-2008>**  
(by Thomson Reuters)

### **Selected publications:**

1. 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, 0000.
2. 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.
3. 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.
4. 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.
5. 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.

6. 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.

7. Guest-Responsive Function of a Dynamic Metal-Organic Framework with  $\square$  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.

8. 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.

9. 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.

10. 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.

11. 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.

12. 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.

13. 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.

14. 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.](#)

15. 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)

16. 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)

17. 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.](#)

18. 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):

1. **Book Chapter:** Cadmium Based Catalysts in *Sustainable Catalysis* (ed M. North)  
Soumya Mukherjee and Sujit K. Ghosh  
[Royal Society of Chemistry, 2015.](#)

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](#)

3. **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.](#)

## Full list of publications:

### (Work from IISER Pune)

#### 2015

71. 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., 2014, 15, 0000 DOI: 10.1021/acs.cgd.5b00578](#)

70. 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 \(Just accepted\)](#)

69. Coherent Fusion of Water Array and Protonated Amine in a Metal-Sulphate Based Coordination Polymer for Proton Conduction

73. Biplab Manna, Bihag Anothumakkool, Aamod V. Desai, Partha Samanta, Sreekumar Kurungot, Sujit K. Ghosh

[Inorg. Chem. 2015 \(Just accepted\)](#)

68. Book Chapter: Cadmium Based Catalysts in *Sustainable Catalysis* (editor: Prof. Michael North)

Soumya Mukherjee and Sujit K. Ghosh

[Royal Society of Chemistry, 2015 \(Just Accepted\)](#)

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, DOI: 10.1002/chem.201406233](#)

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. 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*, DOI: [10.1039/C5DT00397K](https://doi.org/10.1039/C5DT00397K). [Web link](#)  
(Special issue: **New Talent: Asia-Pacific** )

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*, DOI: [10.1039/C5CE00139K](https://doi.org/10.1039/C5CE00139K)

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, DOI: [10.1007/s12039-015-0820-3](https://doi.org/10.1007/s12039-015-0820-3) (*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.](#)

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. 126, 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.

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.

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.

*Inorg. Chem.* 2012, 51, 9159–9161. ([Highlighted in Cheminform](#))

37. A Bistable Dynamic Coordination Polymer Showing Reversible Structural and Functional Transformations

Nagarkar, S. S.; Das, R.; Poddar, P.; Ghosh, S. K.

*Inorg. Chem.* 2012, 51, 8317-8321.

36. A Carboxylate Based Dinuclear Dysprosium (III) Cluster Exhibiting Slow Magnetic Relaxation Behavior

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

*Dalton Trans.* 2012, 41, 7695-7699.

(One of the Top ten most accessed Dalton Trans. articles in May 2012).

35. Role of Temperature on Framework Dimensionality: Supramolecular Isomers of  $Zn_3(RCOO)_8$  Based Metal Organic Frameworks

Nagarkar, S. S.; Chaudhari, A. K.; Ghosh, S. K.

*Cryst. Growth Des.* 2012, 12, 572-576.

34. A Homochiral Luminescent 2D Porous Coordination Polymer with Collagen-Type Triple Helices Showing Selective Guest Inclusion

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

*Inorg. Chem.* 2012, 51, 4644-4649.

33. Selective CO<sub>2</sub> Adsorption in a Robust and Water-Stable Porous Coordination Polymer with New Network Topology

Nagarkar, S. S.; Chaudhari, A. K.; Ghosh, S. K.

*Inorg. Chem.* 2012, 51, 572-576.

32. Surface Pore Engineering of Porous Coordination Polymers in Metal-Organic Frameworks: *Design and Application* (Eds.: MacGillivray L. R.)

Ghosh, S. K.; Kitagawa, S.

*Wiley*, 2010, 165-192. (Book chapter).

### **(Postdoctoral work)**

31. New Heterometallic Carboxylate Frameworks: Synthesis, Structure, Robustness, Flexibility, and Porosity

Jie-Peng Zhang, Sujit K. Ghosh, Jian-Bin Lin, Susumu Kitagawa

*Inorg. Chem.* 2009, 48, 7970-7976.

30. Control of Structure Dimensionality and Functional Studies of Flexible Cu(II) Coordination Polymers

Sujit K. Ghosh, Ramachandan Azhakar, and Susumu Kitagawa

*Chemistry-An Asian Journal*, 2009, 4, 870-875. (Special issue on Prof. C.N.R. Rao's 75<sup>th</sup> birthday celebration).

29. Solvent as structure directing agent for the synthesis of novel coordination frameworks using a tripodal flexible ligand

Sujit K. Ghosh, Susumu Kitagawa

*CyrstEngCommun*, 2008, 10, 1739-1742.

28. 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)

27. 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)

26. 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.

**(Ph.D work from IIT Kanpur)**

25. Binding of various anions in laterally non-symmetric aza-oxa cryptands through H-bonds: characterization of water clusters of different nuclearity

Madhab C. Das, Sujit K. Ghosh, Susan Sen and Parimal K. Bharadwaj

*CrystEngComm*, 2010, 12, 2967-2974.

24. Diversity of binding of sulfate and nitrate anions with laterally asymmetric aza Cryptands

Madhab C. Das, Sujit K. Ghosh and Parimal K. Bharadwaj

*CrystEngComm*, 2010, 12, 413-419.

23. Halide Binding in Laterally Non-symmetric Aza-Oxa Cryptands Through N/O/C–H...halide Interactions with Characterization of Small Water Clusters

M. C. Das, Sujit. K. Ghosh, and P. K. Bharadwaj

*Dalton. Trans.* 2009, 6496-6505.

22. Coordination polymers with pyridine-2,4,6-tricarboxylic acid and alkaline earth/lanthanides/transition metals: Synthesis and X-ray structures

M. C. Das, Sujit. K. Ghosh, E. C. Sanudo and P. K. Bharadwaj

*Dalton. Trans.* 2009, 1644-1658.

21. Water dimers connect [Cu(cda)(py)<sub>3</sub>] (cda = pyridine-4-hydroxy-2, 6- dicarboxylate, py = pyridine) complex units to left- and right-handed helices that form a tubular coordination polymer through supramolecular bonding

Sujit K. Ghosh, Subhadip Neogi, E. Carolina Sañudo and Parimal K. Bharadwaj

*Inorg. Chem. Acta* 2008, 361, 56-62.

20. Laterally Non-symmetric Aza Cryptand Molecules Stitched by Water

Sujit K. Ghosh and Parimal K. Bharadwaj

*Struct. Chem.* 2007, 18, 145-148 (Special Issue).

19. Supramolecularly assembled pentameric and octameric water clusters stabilized by a mixed complex of Ni(II)

Sujit K. Ghosh and Parimal K. Bharadwaj

*Inorg. Chem. Acta* 2006, 359, 1685-1689.

18. Parallel pentameric cycles of water with staggered conformation stabilized by two

infinite phosphate chains in the cavity formed through supramolecular assembly of a cryptand

Sujit K. Ghosh and Parimal K. Bharadwaj  
*Eur. J. Inorg. Chem.* 2006, 1341-1344.

17. Self-assembly of Alternating Left- and Right-Handed Infinite Cd(II) Helicates into a 2D Open Framework Structure

Sujit K. Ghosh and Parimal K. Bharadwaj  
*J. Mol. Struct.* 2006, 796, 119-122 (Special Issue).

16. Coordination Polymers Built from Cu(II) and Pyrazine-2,3,5,6-Tetracarboxylate or Pyridine-2,4,6-Tricarboxylate: Structural and Magnetic Studies

Sujit K. Ghosh, M. Salah El Fallah, Joan Ribas and Parimal K. Bharadwaj  
*Inorg. Chem. Acta* 2006, 359, 468-474.

15. Octameric Water Clusters of Staircase Structure Present in a Metal-Organic Framework Built from Helical Lanthanide Coordination Polymers

Sujit K. Ghosh and Parimal K. Bharadwaj  
*Eur. J. Inorg. Chem.* 2006, 4886-4889.

14. Infinite Chains of Quasi-Planar Hexameric Water Clusters stabilized in a Metal Organic Framework Built from Co(II) and Pyrazine-2,3,5,6-tetracarboxylic Acid

Sujit K. Ghosh and Parimal K. Bharadwaj  
*Eur. J. Inorg. Chem.* 2005, 4880-4885.

13. A Metal-Organic Framework H-Bonded Like a Polycatenane: Coexistence of cyclic Water Trimer and Nonamer

Sujit K. Ghosh and Parimal K. Bharadwaj  
*Inorg. Chem.* 2005, 44, 5553-5555.

12. Mn(II) Staircase Structures Stitched by Water Clusters to a 3D Metal-Organic Open Framework: X-ray Structural and Magnetic Studies

Sujit K. Ghosh, Joan Ribas, M. Salah El Fallah and Parimal K. Bharadwaj  
*Inorg. Chem.* 2005, 44, 3856-3862.

11. Coordination Polymers of La(III) as Bunched Infinite Nanotubes and Their Conversion into an Open-Framework Structure

Sujit K. Ghosh and Parimal K. Bharadwaj  
*Inorg. Chem.* 2005, 44, 3156-3161.

10. Characterization of 3D Metal-Organic Frameworks Formed Through Hydrogen Bonding Interactions of 2D Networks with Rectangular Voids by Co<sup>II</sup>- and Ni<sup>II</sup>-(pdc) [ pdc= Pyridine-2,6-dicarboxylate ] and 4,4'-Bipyridine or 1,2-Di(pyridyl)ethylene.

Sujit K. Ghosh, Joan Ribas and Parimal K. Bharadwaj,  
*Crystal Growth & Design* 2005, 5, 623-629.

9. Self-assembly of a Co(II) Dimer through H-bonding of water molecules to a 3D open framework structure

Sujit K. Ghosh and Parimal K. Bharadwaj  
*Journal of Chemical Sciences* 2005, 117, 23-26.

8. Reactivity of Pyridine-2,4,6-tricarboxylic Acid Toward Zn(II) Salts Under Different Reaction Conditions  
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4. Structure of a Discrete Hexadecameric Water Cluster in a Metal-Organic Framework Structure  
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3. Self-assembly of Lanthanide Helicate Coordination Polymers into 3D Metal-Organic Framework Structures  
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2. A Novel Dodecameric Water Cluster Built Around a Cyclic Quasi-Planar Hexameric Core in an Organic Supramolecular Complex of Cryptand  
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1. Coexistence of Water Dimer and Hexamer Clusters in 3D Metal-Organic Framework Structures of Ce(III) and Pr(III) with Pyridine-2,6-dicarboxylic Acid  
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### **Presentations at Conference/Symposium/Meeting:**

26. Pre-Conference of 4th 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.
25. FICS-2014 (Frontiers in Chemical Sciences), IIT Guwahati, India, during December 4-6, 2014.
24. 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
23. 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.
22. 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.
21. 79th Annual meeting of the Indian Academy of Sciences, at Chandigarh, IISER-Mohali, 8-10 November, 2013.
20. "Modern Trends in Inorganic Chemistry (MTIC-XV)" IIT Roorkee 13<sup>th</sup>-16<sup>th</sup> December, 2013.
19. Alkyl Amines-ICT Foundation Day Young Scientist Award lecture, ICT Mumbai, 21<sup>st</sup> December, 2013.
18. "Young Scientist Research Awardees Meet" (YSRAM) between December 26-27, 2012 at Bhabha Atomic Research Centre (BARC) Mumbai.
17. 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.
15. "40 International Conference on Coordination Chemistry" (ICCC40), between September 9-13, 2012, at Valencia, Spain.
16. "Advances in Pharmaceutical Research & Chemistry" between 22<sup>th</sup> and 24<sup>th</sup> March, 2012 at NITTTR, Bhopal.
14. "3<sup>rd</sup> Asian Conference on Coordination Chemistry" between 17<sup>th</sup> – 20<sup>th</sup> October, 2011 at New Delhi, India.
12. "Past, Present and Future of Supramolecular Chemistry" (PPFSC-2011)" between 22<sup>th</sup> and 24<sup>th</sup> December, 2011. Agra, India.

11. 3<sup>rd</sup> Inter IISER meeting February 20-21, 2011, IISER Mohali, India.
10. IISER Pune/Göttingen Cooperation meeting 9<sup>th</sup> -12<sup>th</sup> December 2010, Göttingen, Germany.
9. "Modern Trends in Inorganic Chemistry" (MTIC-XIII) from 7<sup>th</sup> – 10<sup>th</sup> December, 2009 at Indian Institute of Science, Bangalore.
8. The Sixth International Conference on Inorganic Materials, 28-30 September, 2008, Dresden, Germany (Oral presentation).
7. The Third International Symposium on Chemistry of Coordination Space (ISCCS) - 2007, December 9-12, 2007, Awaji Yumebutai International Conference Center, Awaji, Hyogo, Japan.
6. 1st International Workshop on Protonics and Nano-Interface of Coordination Chemistry, 24<sup>th</sup> February, 2007, Kyoto, Japan. (Attended)
5. 56<sup>th</sup> Japan Society of Coordination Chemistry Symposium, 17-19 September, 2006, Hiroshima University, Hiroshima, Japan.
4. The Second International Symposium on Chemistry of Coordination Space (ISCCS) - 2006, 15-16 December, 2006, Fukuoka, Japan.
3. The Sixth National Symposium of the Chemical Research Society of India (CRSI). Feb. 6-8, 2004, Department of Chemistry, IIT Kanpur, India.
2. 3<sup>rd</sup> Singapore-India Collaborative and Co-operative Chemistry Symposium. December 16-17, 2004, Department of Chemistry, IIT Kanpur, India (Attended)
1. Modern Trends in Inorganic Chemistry (MTIC)-2003, 15-17 December, 2003 Department of Chemistry, IIT Bombay, Mumbai, India.
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