

## CURRICULUM VITAE

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### Research Interests

Research in the area of Framework solids (synthesis, structure, properties and mechanistic studies), heterogeneous catalysis, photocatalysis, luminescent and, magnetic materials. Li-ion conduction, Proton conduction and ceramic pigments.

### DETAILS OF ACADEMIC QUALIFICATIONS:

Examination	University/ Institution	Class obtained	Year
B. Sc. Chemistry	Madurai-Kamaraj University, Madurai	First class with Distinction	1977-80
M.Sc Chemistry	Madurai-Kamaraj University, Madurai	First Class	1980-82
Ph.D. Chemistry	Indian Institute of Technology Madras, Chennai		1983-90
Post-Doctoral	The Royal Institution of Great Britain, UK and The University of California, Santa Barbara, USA		1990-97

**1997[May] – 2001[Oct.]** : Faculty Fellow – Chemistry and Physics of Materials Unit, Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur P.O., Bangalore, India

**2001 [Nov.] – 2004[Aug.]**: Associate Professor – Chemistry and Physics of Materials Unit, Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur P.O., Bangalore, India

**2004[Aug.] -2008[July]** : Associate Professor – Solid State and Structural Chemistry Unit, Indian Institute of Science, Bangalore, India

**2008 [July]** – Professor – Solid State and Structural Chemistry Unit, Indian Institute of Science, Bangalore, India

### **Awards and Honors**

- 1989 – Awarded the best Thesis (presentation) by Indian Physics Association
- 1998 – B.M. Birla Prize for Innovative Research in Chemistry
- 1999 – Materials Research Society of India Medal
- 1999 – Indian Space Research Organization (ISRO) Bursary
- 2000 – DST-JSPS Visiting Fellow – Osaka Prefecture University
- 2000 – Chemical Research Society of India Medal
- 2001 – JWT Jones Fellow, Royal Society of Chemistry, London, UK
- 2002 – Visiting Scientist, Max-Planck-Institut für Festkörperforschung, Stuttgart, Germany
- 2002 – Travel Grant for International Authors from Royal Society of Chemistry, London, UK
- 2003 – Visiting Professor, Max-Planck-Institut für Chemical Physics of Solids, Dresden, Germany
- 2004 – Visiting Professor, Max-Planck-Institut für Chemical Physics of Solids, Dresden, Germany
- 2004 – Visiting Professor, Department of Chemistry and CIMI, University of D'Angers, D'Angers, France
- 2005 – Visiting Fellow, International Center for Materials Research, University of California, Santa Barbara, USA.
- 2006 – Royal Society Visiting Fellow, The University College, London.
- 2006 – Travel Grant for International Authors from Royal Society of Chemistry, London, UK
- 2007 – Visiting Professor, Osaka University, Japan
- 2007-2013 – RAMANNA Fellowship from Department of Science & Technology (DST), Government of India.
- 2008 – International Distinguished Visiting lecturer, Chemistry Research Promotion Center, National Science Council, Taiwan.
- 2008 – Visiting Professor, Osaka University, Japan
- 2009 – Visiting Professor, Osaka University, Japan
- 2009 – Distinguished lecturer, Chang-Mai University, Thailand
- 2009 – Visiting Scientist, IPCMS, Strasbourg, France
- 2011-12 – Visiting Professor, Pohang University of Science and Technology (POSTECH)
- 2013 – JC Bose National Fellow (Department of Science & Technology, India)

### **Other Responsibilities**

1. 2005-2009 – Member, Board of Studies, Materials Science, Mangalore University
2. 2009 – 2012 – Member, Board of Studies, Industrial Chemistry, Mangalore University
3. 2015 – Chairman, Academic Audit, School of Chemistry, Madurai-Kamarj University
4. 2012-2015 – Member – Program Advisory Committee (Inorganic Chemistry) (SERB, Govt. of India)
5. 2015 – Member – Program Advisory Committee (Inorganic and Physical Chemistry) (SERB, Govt. of India)
6. 2012-2015 – Member, INSPIRE (early career award) screening and selection (DST-INSA, Govt. of India).
7. 2012 – Member Research Assessment Board, (RAB, CSIR, Govt. of India)
8. 2013 – Member, Research Council, CECRI, CSIR, Govt. of India
9. 2015 – Member, UGC-CAS Program, Jadavpur University, Kolkata
10. 2016 – Member, Senate, National Institute of Technology, Calicut, Kerala
11. 2016 – Member, Board of Studies, Vellore Institute of Technology, Vellore, Tamil Nadu

### **Membership/Fellowship in National/International Organizations**

Life Member – Materials Research Society – India  
Life Member – Chemical Research Society – India  
Life Member – Indian Crystallographic Association – India  
Life Member – International Zeolite Association (IZA)  
Fellow – The Royal Society of Chemistry (UK)  
Member - The American Chemical Society (USA)  
**Elected Fellow - Indian Academy of Sciences (Bangalore)**  
**Elected Fellow – National Academy of Sciences (India)**  
**Elected Fellow – Indian National Science Academy (Delhi)**

## **Editorial Board Membership in National/International Journals**

Advisory Board Member - European Journal of Inorganic Chemistry (Wiley-VCH)  
(2005- 2015)  
Associate Editor - Resonance – Journal of Science Education (Springer) (2009-2014)  
Topic Editor – Crystal Growth & Design (ACS) (2012-2015)  
Associate Editor – Bulletin of Materials Science (Springer) (2012-)  
Advisory Board Member - Zeitschrift für Anorganische und Allgemeine Chemie (Wiley-  
VCH) (2012-)  
Advisory Board Member - Chemistry - An Asian Journal (2014 - )  
Advisory Board Member - Chemistry Select (2016 - )

## **Research Publications**

Papers Published in Refereed Journals: 270 + 4 (in press) + 2 (submitted)  
Reviews and Invited Chapters in Books: 15

**H-Index = 57, Total Citations = 12,000**

## Research Publications :-

1. Synthesis, structure and electrochemical behaviour of new Ru-containing lithium-rich layered oxides, S. Tamilarasan, D. Mukherjee, S. Sampath, **S. Natarajan** and J. Gopalakrishnan, *Solid State Ionics*, (2016), (under revision).
2. Azide Bridged Cu(II) Assemblies: Synthesis, Structure and Magnetic Properties, S. Mistry, S. Yashonath and **S. Natarajan**, *Inorg. Chem.*, (2016) submitted.
3. Unique Colours of 3d Transition Metal substituted Lyonsite Molybdates and Their Derivatives: The Role of Multiple Coordination Geometries and Metal–Metal Charge Transfer, S. Laha, **S. Natarajan** and J. Gopalakrishnan, *Eur. J. Inorg. Chem.*, 2016 (in press)
4. Selective Sensing of Nitrophenols by a New Inorganic Coordination Polymer:  $[\text{Cd}_2(\text{C}_4\text{H}_4\text{O}_5)_2(\text{C}_5\text{H}_5\text{N}_5)] \cdot \text{H}_2\text{O}$ . DMA, S. R. Sushrutha and **S. Natarajan**, *Chemistry Select*, (2016) (in press).
5. Adenine based Coordination Polymers: Synthesis, Structure, Nitroaromatic and metal ion Sensing Properties, S.R. Sushrutha, R. Hota and **S. Natarajan**, *Eur. J. Inorg. Chem.*, 2016, (in press).
6. Switchable Room Temperature Ferroelectric Behaviour, Sorption Studies and Solvent Exchange Behaviour in a New Three Dimensional MOF,  $[\text{H}_3\text{O}][\text{Co}_2(\text{SDBA})_2(\text{H}_2\text{SDBA})(\text{DAT})] \cdot 5\text{H}_2\text{O}$ , S. Bhattacharya, S. Pal and **S. Natarajan**, *ChemPlusChem*, 2016, 81, 733 - 742
7. Alkaline Earth Metal Mediated Assembly of the Anionic Metalloligand,  $[\text{Ag}_6(\text{mna})_6]^{6-}$  ( $\text{H}_2\text{mna}$  = 2-Mercapto Nicotinic Acid): Synthesis, Structure and Nitroaromatics Sensing Behavior, A.K. Jana, T. Kundu and **S. Natarajan**, *Crystal Growth & Design*, 2016, 16, 3497 – 3509
8. Interpenetrated and Catenated Zinc thiosulfates frameworks with *dia* and *qtz* nets: Synthesis, Structure, and Properties, R. Karthik, and **S. Natarajan**, *Crystal Growth & Design* 2016, 16, 2239 – 2248
9. Stabilization of Tetrahedral ( $\text{Mn}^{5+}\text{O}_4$ ) Chromophore in Ternary Barium Oxides as a Strategy towards Development of New Turquoise/Green Colored Pigments, S. Laha, S. Tamilarasan, **S. Natarajan** and J. Gopalakrishnan, *Inorg. Chem.*, 2016, 55, 3508 – 3514.
10. Stabilization of  $\text{Cu}_7$  Clusters in Azide networks: Syntheses, Structures and Magnetic behaviours, S. Mistry, J.P. Sutter and **S. Natarajan**, *Dalton Trans.*, 2016, 45, 5140 – 5150.
11. Exploring the Colour of 3d Transition-Metal Ions in Trigonal Bipyramidal Coordination: Identification of Purple-Blue ( $\text{CoO}_5$ ) and Beige-Red ( $\text{NiO}_5$ ) Chromophores in  $\text{LiMgBO}_3$  Host, S. Tamilarasan, S. Laha, **S. Natarajan** and J. Gopalakrishnan, *Eur. J. Inorg. Chem.*, 2016, 288 – 293.\

12.  $\text{YIn}_{0.9}\text{Mn}_{0.1}\text{O}_3\text{-ZnO}$  nano-pigment exhibiting intense blue color with impressive solar reflectance, S. Jose, A. Jayaprakash, S.Laha, **S. Natarajan**, K.G. Nishanth, M.L.P. Reddy, *Dyes & Pigments*, **2016**, *124*, 120 – 129.
13. Halogen bonding and Chalcogen bonding in 4,7-dibromo-5,6-dinitro-2,1,3-benzothiadiazole, M.S. Pavan, A.K. Jana, **S. Natarajan**, T.N. Guru Row, *J. Phys. Chem. B.*, **119**, **2015**, 11382 - 11390,
14. High proton mobility, solvent induced single crystal to single crystal (SCSC) structural transformation and related studies on a family of compounds formed from  $\text{Mn}_3$  oxo-clusters, S. Bhattacharya, A.J. Bhattacharyya and **S. Natarajan**, *Inorg. Chem.*, **2015**, *54*, 1254 – 1271.
15.  $\text{Li}_2\text{MnO}_3$ : a rare red-coloured manganese (iv) oxide exhibiting tunable red–yellow–green emission, S Tamilarasan, S Laha, **S Natarajan**, J Gopalakrishnan, *J. of Mater. Chem. C*, **2015**, *3(18)*, 4794-4800
16. Oxygen-participated Electrochemistry of New Lithium-rich Layered Oxides  $\text{Li}_3\text{MRuO}_5$  (M = Mn, Fe), S. Laha, **S. Natarajan**, J. Gopalakrishnan, E. Morán, R. Sáez-Puche, M. Á. Alario-Franco, A. J. Dos Santos-Garcia, J.C. Pérez-Flores, A. Kuhn, F. García-Alvarado, *Phys. Chem. Chem. Phys.* **2015**, *17*, 3749 – 3760.
17. Green colored nano-pigments derived from  $\text{Y}_2\text{BaCuO}_5$ : NIR reflective coatings, S Jose, A Prakash, S Laha, **S Natarajan**, M.L.P. Reddy, *Dyes and Pigments* (**2014**) *107*, 118-126
18. Stabilization of  $\text{Co}_3$  – oxoclusters in a *pcu* net: Synthesis, structure, solvent exchange (single crystal to single crystal) and magnetic studies, S. Bhattacharya, and **S. Natarajan**, *Zeitschrift für Anorganische und Allgemeine Chemie (ZAAC)*., **2014**, *640*, 2922 – 2930.
19. A Reactive Intermediate,  $[\text{Ni}_5(\text{C}_6\text{H}_4\text{N}_3)_6(\text{CO})_4]$ , in the Formation of Nonameric Clusters of Nickel,  $[\text{Ni}_9(\text{C}_6\text{H}_4\text{N}_3)_{12}(\text{CO})_6]$  and  $[\text{Ni}_9(\text{C}_6\text{H}_4\text{N}_3)_{12}(\text{CO})_6].2(\text{C}_3\text{H}_7\text{NO})$ , S. Maity and **S. Natarajan**, *J. Chem. Sci. (India)*, **2014**, *126*, 1477 – 1791.
20. Stepwise Crystallization: Illustrative Examples of the Use of Metalloligands,  $[\text{Cu}_6(\text{mna})_6]^{6-}$  and  $[\text{Ag}_6(\text{Hmna})_2(\text{mna})_4]^{4-}$  ( $\text{H}_2\text{mna}$  = 2–mercapto nicotinic acid), in the Formation of Heterometallic Two and Three Dimensional Assemblies with *brucite*, *pcu* and *sql* Topologies, T. Kundu, A.K. Jana and **S. Natarajan**, *Crystal Growth & Design*, **2014**, *14*, 4531 – 4544.
21. Rare-earth carboxylates,  $[\text{Ln}_2(\mu_3\text{-OH})(\text{C}_4\text{H}_4\text{O}_5)_2(\text{C}_4\text{H}_2\text{O}_4)].2\text{H}_2\text{O}$  [Ln = Ce (I), Pr (II), Nd (III), Eu (IV)] : Synthesis, Structure and Properties, S R Sushrutha, **S. Natarajan**, *CrysEnggComm.*, **2014**, *16*, 4774 – 4782.
22. AIPE-active green phosphorescent iridium(III) complex impregnated test strips for the vaporphase detection of 2,4,6-trinitrotoluene (TNT), K. S. Bejoymohandas, T. M. George, S. Bhattacharya, **S. Natarajan**, and M. L. P. Reddy, *J. Mater. Chem. C*, **2014**, *2*, 515 – 523.

23. Green colored nano-pigments derived from Y<sub>2</sub>BaCuO<sub>5</sub>: NIR reflective coatings. S Jose, A. Prakash, S. Laha, **S. Natarajan** and M.L.P. Reddy, *Dyes and Pigments*, **2014**, *107*, 118 – 126.
24. Organization of Mn-Clusters in *pcu* and *bcu* Networks: Synthesis, Structure and Properties, S. Bhattacharya, M. Gnanavel, A. J. Bhattacharyya and S. Natarajan, *Crystal Growth & Design*, **2014**, *14*, 310 – 325.
25. Li<sub>3</sub>MRuO<sub>5</sub> (M = Co, Ni), new lithium-rich layered oxides related to LiCoO<sub>2</sub>: Promising electrochemical performance for possible application as cathode materials in lithium ion batteries, S. Laha, E. Morán, R. Sáez-Puche, M. A. Alario-Franco, A. J. Dos santos-Garcia, E. Gonzalo, A. Kuhn, **S. Natarajan**, J. Gopalakrishnan and F. García-Alvarado, *J. Mater. Chem.*, **2013**, *36*, 10686 – 10692.
26. New Rock Salt Related Oxides Li<sub>3</sub>M<sub>2</sub>RuO<sub>6</sub> (M = Co, Ni): Synthesis, Structure, Magnetism and Electrochemistry, S. Laha, E. Morán, R. Sáez-Puche, M. A. Alario-Franco, A. J. Dos santos-Garcia, E. Gonzalo, A. Kuhn, F. García-Alvarado, T. Sivakumar, S. Tamilarasan, **S. Natarajan**, and J. Gopalakrishnan, *J. Solid State Chem.*, **2013**, *203*, 160 – 165.
27. Bismuth carboxylates with brucite and fluorite related structures, S.R. Sushrutha and **S. Natarajan**, *Crystal Growth & Design*, **2013**, *13*, 1743 - 1751.
28. Exploring the Color of Transition Metal Ions in Irregular Coordination Geometries: New Colored Inorganic Oxides Based on the Spiroffite Structure, Zn<sub>2-x</sub>M<sub>x</sub>Te<sub>3</sub>O<sub>8</sub> (M = Co, Ni, Cu), S. Tamilarasan, D. Sarma, **S. Natarajan** and J. Gopalakrishnan, *Inorg. Chem.*, **2013**, *52*, 5757 - 5763.
29. YGa<sub>1-x</sub>Mn<sub>x</sub>O<sub>3</sub>: A novel purple inorganic pigment, S. Tamilarasan, Debajit Sarma, M. L. P. Reddy, **S. Natarajan** and J. Gopalakrishnan, *RSC Advances*, **2013**, *3*, 3199 - 3202.
30. Crystallizing new frameworks for cooperation with Asia, **S. Natarajan**, *Crystal Growth & Design*, **2013**, *13*, 1367 – 68.
31. Sequential assembly in metal-organic frameworks, P. Mahata and **S. Natarajan**, *Crystal Growth & Design*, **2013**, *13*, 155 - 168.
32. Synthesis of a mixed – metal spinel, NiMn<sub>2</sub>O<sub>4</sub>, through site selective substitution in a MOF, [(NiMn<sub>2</sub>)(C<sub>6</sub>H<sub>3</sub>(COO)<sub>3</sub>)<sub>2</sub>]: Synthesis, Structure and Magnetic Studies, D. Sarma, P. Mahata and **S. Natarajan**, *Cur. Sci.*, **2012**, *103*, 1185 – 1192.
33. Highly Luminescent and Thermally Stable Lanthanide Coordination Polymers Designed from 4-(Dipyridin-2-yl)aminobenzoate: Efficient Energy Transfer from Tb<sup>3+</sup> to Eu<sup>3+</sup> in a Mixed Lanthanide Coordination Compound, A.R. Ramya, D. Sarma, **S. Natarajan**, M.L.P. Reddy, *Inorg. Chem.*, **2012**, *51*, 8818 – 8826.
34. Metathesis in Metal-Organic Frameworks: An Alternate Synthetic Route for New Metal-Organic Frameworks, Y. Kim, S. Das, S. Bhattacharyya, S. Hong, M. G. Kim, M. Yoon, **S. Natarajan**, and K. Kim, *Chemistry – A Eur. J.*, **2012**, *18*, 16642 - 16648.

35. Stabilization of O – Mn – O clusters ( $Mn_5$ ) in three dimensionally extended MOF structures: Synthesis, structure and properties, S. Bhattacharya, K.V. Ramanuchary, S.E. Lofland, T. Magdaleno and **S. Natarajan**, *CrystEnggComm.*, **2012**, *14*, 4323 – 4334.
36. Synthesis, Structure and Magnetic Properties of a New Eight-connected Metal Organic Framework (MOF) based on  $Co_4$  Clusters, D. Sarma, P. Mahata, **S. Natarajan**, P. Panissod, G. Rogez and M. Drillon, *Inorg. Chem.*, **2012**, *51*, 4495 – 4501.
37. The aza-heterocyclic ligand assisted assembled of new cobalt OFs with *pcu* and graphite related structures, D. Sarma, V. Srivastava and **S. Natarajan**, *Dalton Trans.*, **2012**, *41*, 4135 – 4145.
38.  $Ba_3(P_{1-x}Mn_xO_4)_2$  : A New Blue Inorganic Pigment Based on Tetrahedral Mn(V), S. Laha, R. Sharma, S.V. Bhat, J. Gopalakrishnan and **S. Natarajan**, *Bull. Mater. Sci. (India)*, **2011**, *34*, 1257 – 1262.
39. Charge density analysis of a pentaborate ion in an ammonium borate: Toward the understanding of topological features in borate minerals, V.R. Hathwar, A.K. Paul, **S. Natarajan** and T.N. Guru Row, *J. Phys. Chem. A.*, **2011**, *115*, 12818 – 12825.
40. An eight-connected metal organic framework based on  $Cu_5$  cluster: Synthesis, structure, magnetic and catalytic properties, D. Sarma and **S. Natarajan**, *Indian J. Chem.*, **2011**, *50A*, 1281 – 1289.
41. The usefulness of *in-situ* single crystal to single crystal transformation (SCSC) studies in understanding the temperature dependent dimensionality crossover and structural reorganization in copper containing metal-organic frameworks (MOFs), D. Sarma and **S. Natarajan**, *Crystal Growth & Design*, **2011**, *11*, 5415 – 5423.
42. Synthesis, structure, photochemical [2+2] cycloaddition, transformation and photocatalytic studies in a family of inorganic-organic hybrid cadmium thiosulfate compounds, A.K. Paul, R. Karthik and **S. Natarajan**, *Crystal Growth & Design*, **2011**, *11*, 5741 – 5749.
43. Lanthanide Sulfate Frameworks: Synthesis, structure and optical properties, B. Yotnoi, A. Rujiwatra, M. L. P. Reddy, D. Sarma and **S. Natarajan**, *Crystal Growth & Design*, **2011**, *11(4)*, 1347 – 1356.
44. Lanthanide luminescent coordination polymer constructed from unsymmetrical dinuclear building blocks based on 4-((1H-Benzo[d]imidazol-1-yl)methyl)benzoic acid, M.V. Lucky, S. Sivakumar, M.L.P, Reddy, A.K. Paul and **S. Natarajan**, *Crystal Growth & Design*, **2011**, *11(3)*, 857 – 864.
45. High – throughput study of  $Cu(CH_3COO)_2 \cdot H_2O$  – 5-nitroisophthalic acid – heterocyclic ligand system: Synthesis, Structure, Magnetic and Heterogeneous catalytic Studies of three copper nitroisophthalates, D. Sarma, K.V. Ramanujachary, N. Stock and **S. Natarajan**, *Crystal Growth & Design*, **2011**, *11(4)*, 1357 – 1369.
46. Liquid-Liquid interphase (biphasic) as the reaction medium in the assembly of a hierarchy of structures of 4,4'-azodibenzoic acid with Zinc and Cadmium, S. Bhattacharya, U. Sanyal and **S. Natarajan**, *Crystal Growth & Design*, **2011**, *11(3)*, 735 – 747.

47. CoMn<sub>2</sub>O<sub>4</sub> Spinel from a MOF: Synthesis, structure and magnetic Studies, P. Mahata, D. Sarma, C. Madhu, A. Sundaresan and **S. Natarajan**, *Dalton Trans.*, **2011**, *40*, 1952 - 1960.
48. New Open–Framework Phosphate and Phosphite Compounds of Gallium, P. Ramaswamy, S. Mandal, and **S. Natarajan**, *Inorg. Chim. Acta*, **2011**, *373*, 136 – 144.
49. Hierarchy of structures in the family of amine templated open-framework gallium arsenates, V.K. Rao, R. Prabhu and **S. Natarajan**, *Inorg. Chim. Acta*, **2010**, *13*, 163 – 166
50. Effect of metal ion doping on the photocatalytic activity of aluminophosphates, A. K. Paul, M. Prabu, M. Giridhar and **S. Natarajan**, *J. Chem. Sci.*, **2010**, *122*, 771 – 785.
51. Synthesis, Structure and Solid-State Transformation Studies of Phosphonoacetate based Hybrid Compounds of Uranium and Thorium, P. Ramaswamy, M. Prabu and **S. Natarajan**, *Inorg. Chem.*, **2010**, *49*, 7927 – 7934.
52. Use of Polyazaheterocycles in the Assembly of New Cadmium Sulfate Frameworks: Synthesis, Structure and Properties, A. Paul, U. Sanyal and **S. Natarajan**, *Crystal Growth & Design*, **2010**, *10*, 4164 – 4175.
53. Synthesis, structure and optical studies of a family of three dimensional rare earth aminoisophthalates, [M( $\mu_2$ - OH)(C<sub>8</sub>H<sub>5</sub>NO<sub>4</sub>)], M = Y<sup>+3</sup>, La<sup>+3</sup>, Pr<sup>+3</sup>, Nd<sup>+3</sup>, Sm<sup>+3</sup>, Eu<sup>+3</sup>, Gd<sup>+3</sup>, Dy<sup>+3</sup> and Er<sup>+3</sup>, D. Sarma, M. Prabu, S. Biju, M. L. P. Reddy and **S. Natarajan**, *Eur. J. Inorg. Chem.*, **2010**, 3813 – 3822.
54. Synthesis, Structure and Magnetic Properties of Amine-Templated Transition Metal Phosphites, P. Ramaswamy, S. Mandal, N. N Hegde, R. Prabhu, D. Banerjee, S.V. Bhat and S. Natarajan, *Eur. J. Inorg. Chem.*, **2010**, 1829 - 1838.
55. Two- and Three-dimensional Open-Framework Uranium Arsenates: Synthesis, Structure and Characterization, V. K. Rao, K. Bharathi, R. Prabhu, M. Chandra and **S. Natarajan**, *Inorg. Chem.*, **2010**, *49*, 2931 – 2947.
56. Synthesis, Structure, Transformation Studies and Heterogeneous Catalytic Behavior of Inorganic-Organic Hybrid Cadmium Thiosulfate Compounds, A.K. Paul, M. Giridhar and **S. Natarajan**, *Dalton Trans.*, **2010**, 2263 – 2279.
57. Magnetic Behavior in Metal-Organic Frameworks – Some Recent Examples, P. Mahata, D. Sarma and **S. Natarajan**, *J. Chem. Sci.*, **2010**, *122*, 19 – 35.
58. Stabilization of Graphite and Diamond Nets in a Family of Aluminoborates, A.K. Paul and **S. Natarajan**, *Crystal Growth & Design*, **2010**, *10*, 765 – 774.
59. [B<sub>4</sub>O<sub>9</sub>H<sub>2</sub>] Cyclic Borate Units as the Building Unit in a Family of Zinc Borate Structures, A. K. Paul, K. Sachidananda and **S. Natarajan**, *Crystal Growth & Design*, **2010**, *10*, 456 – 464.
60. A New Interrupted Zeolitic Framework in a Zinc Arsenate, [C<sub>4</sub>N<sub>3</sub>H<sub>16</sub>]<sub>2</sub>[Zn<sub>5</sub>(AsO<sub>4</sub>)<sub>4</sub>(HASO<sub>4</sub>)<sub>2</sub>], V.K. Rao and **S. Natarajan**, *Inorg. Chem. Commun.*, **2010**, *13*, 163 – 166.
61. Synthesis, Structure and Transformation Studies in a Family of Inorganic-Organic Hybrid Framework Structures Based on Indium, P. Ramaswamy, N. N Hegde, R. Prabhu, V.M.Vidya, A. Datta and **S. Natarajan**, *Inorg. Chem.*, **2009**, *48*, 11697 - 11711.



62. Aminoacid based MOF's: Synthesis, structure, single crystal to single crystal transformation, magnetic and related studies in a family of cobalt and nickel aminoisophthales, D. Sarma, K. V. Ramanujachary, S. E. Lofland, T. Magdaleno and **S. Natarajan**, *Inorg. Chem.*, **2009**, *48*, 11660 - 11676.
63. Adsorption-Desorption and Photocatalytic Properties of Inorganic-Organic Hybrid Cadmium Thiosulfate Compounds, A.K. Paul, M. Giridhar and **S. Natarajan**, *Phys. Chem. Chem. Phys.*, **2009**, *11*, 11285 - 11296.
64. Synthesis, structure and magnetic behavior of a new three-dimensional Manganese phosphite-oxalate:  $[\text{C}_2\text{N}_2\text{H}_{10}][\text{Mn}_2^{\text{II}}(\text{OH}_2)_2(\text{HPO}_3)_2(\text{C}_2\text{O}_4)]$ , P. Ramaswamy, S. Mandal and **S. Natarajan**, *J. Solid State Chem.*, **2009**, *182*, 2491 – 2496.
65. Time and Temperature Dependent Study in the Three-Component Zinc-Triazolate-Oxybis(benzoate) system: Stabilization of New Topologies, P. Mahata, M. Prabhu and **S. Natarajan**, *Crystal Growth and Design*, **2009**, *9*, 3683 – 3691.
66. Quasi-2D XY Magnetic Properties and Slow Relaxation in a Body Centered Metal Organic Network of  $\text{Co}_4$  Clusters, P. Mahata, **S. Natarajan**, P. Panissod and M. Drillon, *J. Am. Chem. Soc.*, **2009**, *131*, 10140 – 10150.
67. Metal-Organic Framework Compounds with Fluorite and Kagome Related Topologies and their Magnetic Behavior, P. Mahata, R. Rajamani, D. Sen, S. Ramasesha and **S. Natarajan**, *Chem. Asian. J.*, **2009**, *4*, 936 – 947.
68. Reversible Water Intercalation accompanied by Coordination and Color changes in a Layered Metal-Organic Framework, P. Mahata, K.V. Ramya and **S. Natarajan**, *Inorg. Chem.*, **2009**, *49*, 4942 – 4951.
69. The first observation of  $\text{Na}_2\text{TiS}_2$  related structure in a two-dimensional anionic manganese trimesate intercalated by cationic imidazole, P. Mahata and **S. Natarajan**, *CrystEngCom.*, **2009**, *11*, 560 – 563.
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