### **CURRICULUM VITAE**

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http://sit.ac.in/department/chemistry/facultyprofile/gnagaraju.pdf6%2004%202017.pdf

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Research Interest: Synthesis of nanomaterials for energy applications

- 1. Synthesis and characterization of layered transition metal oxides/sulphides, alloys, lithiated transition metal oxides etc, via hydrothermal, solvothermal, ionothermal and combustion method
- 2. Lithium ion battery
- 3. Hydrogen production
- 4. Degradation of organic dye/industrial pollutants
- 5. Synthesis of exfoliated graphene oxide and reduced graphene oxide
- Synthesis of metal oxide/sulphide-reduced graphene oxide hybrid nanomaterials for enhancement of the performance of the lithium battery and photocatalytic properties (H<sub>2</sub> generation via water splitting reaction and degradation of organic dyes)

#### List of papers published

90. B. Archana, G. Nagaraju, K. V. Yatish, Udayabhanu, K. B. Chandra Sekhar, and Nagaraju Kottam 'Bio-derived ZnO nanoparticles as an efficient catalyst for photocatalytic activity and biodiesel production', AIP Conference Proceedings 1992 (**2018**) 030004 (2018); doi: 10.1063/1.5047955.

89. K.N. Manukumar, Brij Kishore, K.Manjunath, N.Munichandraih and **G. Nagaraju**, Mesoporous  $Ta_2O_5$  nanoparticles as an alternate anode material for lithium ion battery and an efficient catalyst for photocatalytic hydrogen generation, Int. Journal of Hydrogen Energy (Accepted, 2018) (IF:4.5)

88. S.B. Patil, H.S. Bhojya Naik, G. Nagaraju, B.E. Kumara Swamy. Enhanced Photocatalytic activity and biosensing in gadolinium substituted BiFeO<sub>3</sub> nanoparticles. *Chemistry Select* (*accepted*, *In Press*)

87. K. Navyashree, Hareesh, D.V. Sunitha, H. Nagabhushana, G. Nagaraju, Photocatalytic degradation performance of  $Nd^{3+}$  doped  $V_2O_5$  nanostructures, Materials Research Express (In press, **2018**)

86. J. Shivakumar, Chikkahanumantharayappa, Hari Krishna, S. Ashoka, G. Nagaraju, 'CdSiO<sub>3</sub>: Eu<sup>3+</sup> nanophosphor: One pot synthesis and enhancement of Orange-red emission through Li<sup>+</sup> co-doping, 'J. of Materials Science: Materials in Electronics (**Accepted, 2018**) (**ISSN 0957-4522**)

85. Shivaraj B. Patil, Brij Kishore, **G. Nagaraju** and V. Udaykumar, 'Mesoporous MnMoO4 nanorods for enhanced electrochemical performance', Chemistry Select, 3 (2018) 1-7 (<u>ISSN 2365-6549</u>)

84. Harish Phattepur, B. S. Gowrishankar, **G. Nagaraju**, 'Synthesis and characterisation of mesoporous  $TiO_2$  nanoparticles by novel surfactant assisted sol-gel method for the degradation of organic compounds' Periodica Polytechnica Chemical Engineering,(In press, **2017**) (<u>ISSN 1587-3765</u>)

83. Sunitha Patil, H.S. Bhojya Naik, **G. Nagaraju**, R. Viswanath, 'Sugarcane juice facilitated eco-friendly synthesis of solar light active  $CdFe_2O_4$  nanoparticles and its photocatalytic application, The European Physical Journal Plus (Accepted, **2018**) (ISSN 2190-5444)

82. Sunitha Patil, H.S. Bhojya Naik, **G. Nagaraju**, R. Viswanath, 'Sugarcane juice facilitated eco-friendly synthesis of visible light active zinc ferrite nano photocatalyst for the degradation of mixed dyes,' Materials Chemistry and Physics, 212 (2018) 351 (**ISSN: 0254-0584**)

81. L.S. Reddy Yadav, Udayabhanu, M. Raghavendra, K.Manjunath, C. Kavitha, G.K. Raghu, G. Nagaraju, 'Photocatalytic, Biodiesel, Electro catalytic properties and Formylation reactions of ZnO nanoparticles Synthesized via Eco-friendly Green route method', Journal of Materials Science: Materials in Electronics, (In press, 2018) (<u>ISSN</u> 0957-4522)

80. L.S. Reddy Yadav, K. Manjunath, C. Kavitha, G. Nagaraju, 'Investigation of Hydrogen generation and Antibacterial activity by Ionic liquid aided synthesis of  $TiO_2$  nanoparticles' Journal of Science: Advanced Materials and Devices, 3 (2018) 181 (ISSN 2468-2179)

79. L. S. Reddy Yadav, M. Raghavendra, K.H. Sudheerkumar, G.Nagaraju, N. Dhananjaya, Biosynthesised  $ZnO:Dy^{3+}$ nanoparticles: Biodiesel properties and reusable catalyst for *N*-Formylation of Aromatic amineswith Formic Acid, The European Physical Journal Plus, 133 (**2018**) **153** (**ISSN 2190-5444**)

78. N. Jawahar, S, Nagavishwakya, A. Justin De, Anindita; Karri, S. Veera Venkata Satyanarayana Reddy, jubie, G. Nagaraju, 'Donepezil loaded lipid coated nanoceria for management of alzeimer disease' Artificial Cells, Nanomedicine and Biotechnology (In Press, 2017). (ISSN 2169-1401)

**77.** K.R. Alamelu, Geetha R Balakrishna, J. Dupont, **G. Nagaraju**, 'Ionic liquid - assisted hydrothermal synthesis of silver vanadate nanorods' Iranian Journal of Science and Technology (in press, DOI: 10.22099/IJSTS.2016.3674) (ISSN 1028-6276)

76. K. Manjunath, L. S. Reddy Yadav, T. Jayalakshmi, H. Raja Naika, G. Nagaraju, Ionic liquid assisted hydrothermal synthesis of  $TiO_2$  nanoparticles: Photocatalytic and

Antibacterial activity, Journal of Materials Research and Technology, 7 (2018) 7-13 (<u>ISSN</u> 2238-7854)

75 K. N. Manukumar, **G. Nagaraju**, Brij Kishore, C. Madhu and N. Munichandraiah, Ionic liquid-assisted hydrothermal synthesis of SnS nanoparticles: Electrode materials for lithium batteries, photoluminescence and photocatalytic activities, Journal of Energy Chemistry, 27 (2018), 806 (ISSN 2095-4956)

74. S. Ashoka, L. Shreenivasa, K. Yogesh, G. Nagaraju, 'A new and effective approach for  $Fe_2V_4O_{13}$  nanoparticles synthesis: Evaluation of electrochemical performance as cathode for lithium secondary batteries', J. of Alloys and Compounds, 737 (2018) 665 (ISSN 0925-8388)

73. C. Anupama, Anubhav Kaphle, Udayabhanu, G. Nagaraju, 'Aegle marmelos juice assisted green synthesis of ZnO nanoparticles: photocatalytic and antibacterial activity', Journal of Materials Science: Materials in Electronics. 29 (2018) 4238 (<u>ISSN 0957-4522</u>)

72. **G. Nagaraju,** Udayabhanu, J. P. Shubha, K. Manjunath, J. Dupont, 'Ionothermal synthesis of TiO<sub>2</sub>nanoparticles for enhanced photocatalytic H<sub>2</sub> generation', Int. Journal of Hydrogen Energy, 43 (**2018**) 4028 (**ISSN 0360-3199**)

71. J. Shivakumar, Chikkahanumantharayappa, S. Ashoka, G. Vijayakumar, C. Manjunatha, B.M. Nagabhushana, **G. Nagaraju**, Elimination of quenching defects by facile anion doping in CdSiO<sub>3</sub> synthesized by green fuel assisted combustion method', Optik 154 (**2018**) 670. (**ISSN 0030-4026**)

70. T. Jayalakshmi, K. Nagaraju, G. Nagaraju,' Enhanced electrochemical performance of vanadium dioxide (B) nanorods by reduced graphene oxide support, J. Energy Chemistry, 27 (2018) 183 (<u>ISSN 2095-4956</u>)

69. Shivaraj B. Patil, T. N. Ravishankar, K. Lingaraju, G. K. Raghu, G. Nagaraju,
'Multiple applications of combustion derived Nickel oxide nanoparticles', Journal of Materials Science: Materials in Electronics. 29 (2018) 277 (<u>ISSN 0957-4522</u>)

68. Shivaraj B. Patil, K. Manjunath, Viswanath Reddy and G. Nagaraju, 'One pot hydrothermal synthesis of  $Cu_2S$ -MoO<sub>3</sub> nanocomposite as anode for lithium ion battery and its photocatalytic activity', Int. Journal of Hydrogen Energy 43 (2018) 4003 (<u>ISSN 0360-</u>3199)

67. B. Hemashekar, M. Govindappa, G. Nagaraju, 'Green alloy of silver nanoparticles from endophytic extracts of withana somnifera and studies of antibacterials and antimitotic activity, Asian Journal of Pharmaceutical and Clinical research, 10 (2017) 300 (ISSN 0974-2441)

66. Rajesha B.J., Alamelu. K. Ramasami, G. Nagaraju, Geetha. R. Balakrishna,
'Photochemical Elimination of EDC by ZnO Nanoparticles Synthesized by Gel Combustion, Water Environment Research 89 (2017) 396. (ISSN 1061-4303)

65. K. Manjunath, L. S. Reddy Yadav, G. Nagaraju, J. Dupont, T. Ramakrishnappa, Progressive addition of GO to  $TiO_2$  nanowires for remarkable changes in photochemical hydrogen production, Ionics, 23 (2017) 2887 (<u>ISSN: 0947-7047</u>)

64. K. Manjunath, S. D. Virginia, T. Ramakrishnappa,G. Nagaraju, D. S. Jackson, J. Dupont, Superior activity of CuS-TiO<sub>2</sub>/Pt hybrid nanostructure towards visible light induced hydrogen production, New Journal of Chemistry, 40 (2016) 10172. (<u>ISSN 1144-</u>0546)

63. Udayabanu, H. Nagabhushana, D. Suresh, H. Rajanaika. S C Sharma, **G. Nagaraju**, Hydrothermal synthesis of TiO<sub>2</sub>-rGO by green chemical method, Materials Today: Proceedings 4 (**2017**) 11888 (**ISSN: 2214-7853**)

62. G. C. Shivaraju, Dinesh Rangappa, G. Banuprakash and **G. Nagaraju**, Photocatalytic activity of ZnO nanoparticles: Synthesis via solution combustion method, Materials Today: Proceedings 4 (**2017**) 11700. (**ISSN: 2214-7853**)

61. Sunitha B. Patil, H. S. BhojyaNaik, R. Viswanath, S. K. Rashmi, **G. Nagaraju**, Synthesis of visible light active  $Gd^{3+}$  substituted  $ZnFe_2O_4$  nanoparticles for Photocatalytic and antibacterial activities, The European Physical Journal Plus, 137 (**2017**) 324 (ISSN

### <u>2190-5444)</u>

60. Udayabhanu, **G. Nagaraju**, Brij Kishor, S. Muralikrishna, H. Nagabhushana, D. Suresh, and S. C. Sharma, 'Facile Green, One pot synthesis of MnCO<sub>3</sub> & MnCO<sub>3</sub>-rGO Cubes, Dumbbells and Ovals: A Cheap and Environmentally benign anode material for Liion Battery and Biosensor for nanomolar Dopamine detection, New Journal of Chemistry, **41** (2017) 12854 – 12865 (**ISSN 1144-0546**)

59. Udayabhanu, G. Nagaraju, H. Nagabhushana, D. Suresh, C. Anupama, G. K. Raghu and S.C. Sharma, Vitis labruska skin extract assisted green synthesis of ZnO super structures for multifunctional applications, Ceramic International, 43 (2017) 11646. (ISSN: 0272-8842)

58. N. S. Pavithra, K. Lingaraju, G. K. Raghu, **G. Nagaraju**, Citrus maxima (Pomelo) juice mediated eco-friendly synthesis of ZnO nanoparticles: Applications to photocatalytic, electrochemical sensor and antibacterial activities, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, 185 (2017) 11-19 (ISSN 1386-1425)

L.S. Reddy Yadav, K. Lingaraju, Banuprakash, Daruka Prasad, C. Kavitha and
 G. Nagaraju, Synthesis of CeO<sub>2</sub> nanoparticles: Photocatalytic and antibacterial activities,
 The European Physical Journal Plus, 132 (2017) 239 (ISSN 2190-5444)

56. L.S. Reddy Yadav, K. Lingaraju, K. Manjunath, G.K. Raghu, K.H. Sudheer kumar, G. Nagaraju, Synergistic effect of MgO nanoparticles for electrochemical sensing, photocatalytic-dye degradation and antibacterial activity, Materials Research Express, 4 (2017) 25028 (ISSN: 2053-1591)

55. K. Manjunath, V.S. Souza, **G. Nagaraju**, J.D. Scholten, S.R. Teixeira, J.Dupont and T. Ramakrishnappa, 'Effect of the magnetic core of  $(MnFe)_2O_3@Ta_2O_5$  nanoparticles on photocatalytic hydrogen production, New Journal of Chemistry, 41 (2017) 326 (<u>ISSN</u> <u>1144-0546</u>)

54. **G. Nagaraju,** Udayabhanu, Shivaraju, S. A. Prashanth, Mahesh Shastri, K. V. Yathish, C. Anupama, Dinesh Rangappa, 'Electrochemical heavy metal detection, Photocatalytic, Photoluminescence, Biodiesel production and Antibacterial activities of Ag-ZnO nanomaterial' Materials Research Bulletin, 94 (2017) 54 (<u>ISSN: 0025-5408</u>)

53. B. Archana, K. Manjunath , G. Nagaraju , K.B. Chandra Sekhar , K. Nagaraju, Enhanced photocatalytic hydrogen generation and photostability of ZnO nanoparticles obtained via green synthesis, Int. Journal of Hydrogen Energy 42 (2017) 5125 (<u>ISSN</u> 0360-3199)

52. Udayabhanu, G. Nagaraju, H. Nagabhushana, R. B. Basavaraj, G. K. Raghu, D. Suresh, H. Rajanaika and S. C. Sharma, Green, non-chemical route for the synthesis of ZnO superstructures, Evaluation of its applications towards Photocatalysis, Photoluminescence and Bio-sensing, Crystal Growth and Design, 16, (**2016**) 6828 (**ISSN 1528-7483**)

51. K. Manjunath, S. D. Virginia, T. Ramakrishnappa, G. Nagaraju, D. S. Jackson, J. Dupont, 'Heterojunction CuO-TiO<sub>2</sub> nanocomposite synthesis for significant photo

catalytic hydrogen production', Materials Research Express, 3 (2016) 115904 (<u>ISSN:</u> 2053-1591)

50. T.N. Ravishankar, M.O. Vaz, S. Khan, T. Ramakrishnappa, S.R. Teixeira, Geetha. R. Balakrishna, G. Nagaraju and J. Dupont, 'Ionic Liquid Assisted Hydrothermal Syntheses of TiO<sub>2</sub>/CuO Nano-Composites for Enhanced Photocatalytic Hydrogen Production from Water', Chemistry Select, 1 (2016) 2199 (<u>ISSN:2365-6549</u>)

49. **G. Nagaraju,** S. Ashoka, R. Manjunatha, S. Srinivasan, J. Livage and G. T. Chandrappa, 'Vanadium oxide nanorings: facile synthesis, formation mechanism and electrochemical properties', Materials Research Bulletin, 83 (**2016**) 542. (<u>ISSN: 0025-</u>

### <u>5408</u>)

48. K.R. Alamelu, T. N. Ravishankar, **G. Nagaraju**, T. Ramakrishnappa, <u>S. R. Teixeira</u> Geetha. R. Balakrishna, 'Gel combustion synthesized ZnO nanoparticles for visible light assisted photocatalytic hydrogen generation', Bulletin of Materials Science, 40 (**2017**) 345-354 (**ISSN: 0250-4707**)

47. L.S. Reddy Yadav, K. Lingaraju, R.B. Basavaraja, Daruka Prasad, C. Kavitha and G. Nagaraju, 'Fruit juice extract mediated synthesis of  $CeO_2$  nanoparticles for antibacterial and photocatalytic activities', The European Physical Journal – Plus, 131 (2016) 154. (ISSN 2190-5444)

46 T.N. Ravishankar, **G. Nagaraju**, Jariton Dupont, 'Photocatalytic activity of Li-doped  $TiO_2$  nanoparticles: Synthesis via Ionic liquid-assisted hydrothermal route, Materials Research Bulletin, 78 (2016) 103. (ISSN: 0025-5408)

45. T. N. Ravishankar, M. de Oliveira Vaz, S. Khan, T. Ramakrishnappa, S. R. Teixeira, Geetha R. Balakrishna, **G. Nagaraju** and J. Dupont, Enhanced photocatalytic hydrogen production from  $Y_2O_3/TiO_2$  nano-composites: a comparative study on hydrothermal synthesis with and without an ionic liquid', New Journal of Chemistry,40 (**2016**) 3578. (**ISSN 1144-0546**)

44. L.S. Reddy Yadav, B. Archana, K. Lingaraju, C. Kavitha, D. Suresh, H. Nagabhushana and **G. Nagaraju**, 'Electrochemical Sensing, Photocatalytic and Biological Activities of ZnO Nanoparticles: Synthesis via Green Chemistry Route, Int. Journal of Nanoscience, 15 (2016) 1650013 (<u>ISSN 1793-5350</u>)

43. L.S. Reddy Yadav, Danith Kumar, C. Kavitha, H.Rajanaika, B. Daruka Prasad, H. Nagabhushana and G. Nagaraju, 'Antibacterial and Photocatalytic Activities of ZnO

Nanoparticles: Synthesized Using Water Melon Juice as Fuel', Int. Journal of Nanoscience, 15 (2016) 1650006 (ISSN 1793-5350)

42. K. Lingaraju, H. Raja Naika, K. Manjunath, R. B. Basavaraj, H. Nagabhushana,
G. Nagaraju, D. Suresh, 'Biogenic synthesis of zinc oxide nanoparticles using Ruta graveolens (L.) and their antibacterial and antioxidant activities', Appl Nanosci. 06 (2016) 703 (ISSN 2190-5509)

41. Danith Kumar, L. S. Reddy Yadav, K. Lingaraju, K. Manjunath, D. Suresh, Daruka Prasad, H. Nagabhushana, S. C. Sharma, H. Raja Naika, Chikkahanumantharayappa, and **G. Nagaraju**, 'Combustion synthesis of MgO nanoparticles using plant extract: Structural characterization and photoluminescence studies', Solid State Physics, AIP Conf. Proc. 1665 (**2015**) 050145 (DOI: 10.1063/1.4917786) (**ISSN 1551-7616**)

40. K. Lingaraju, H. Raja Naika, K. Manjunath, G. Nagaraju, D. Suresh, H. Nagabhushana, 'Rauvolfia serpentina-Mediated Green Synthesis of CuO Nanoparticles and Its Multidisciplinary Studies', Acta Metall. Sin. (Engl. Lett.) 28 (2015) 1134. (ISSN: 1006-7191)

39. T.N. Ravishankar, K. Sureshkumar, G. Nagaraju, T. Ramakrishnappa, Electrochemical detection and photochemical detoxification of hexavalent chromium ( $Cr^{+6}$ ) by Ag doped TiO<sub>2</sub> nanoparticles, Analytical Methods,7 (**2015**) 3493. (**ISSN 1759-9660**)

38. K. Manjunath, V. S. de Souza, G. Nagaraju, J.D. Scholten, S.R. Teixeira, J. Dupont, T. Ramakrishnappa, 'A novel mesoporous foam  $TiO_2$  nanomaterials for effective hydrogen production', Chemistry- A European Journal, 21 (2015) 17624 (Appeared in Cover Page). (ISSN 1521-3765)

37. G. Nagaraju, K. Manjunath, E. Gunter, Sergio R. Teixeira and J. Dupont, 'TiO<sub>2</sub>-RGO hybrid nanomaterials for enhanced water splitting reaction', Int. Journal of Hydrogen Energy, 40 (**2015**) 12209 (**ISSN 0360-3199**)

36. K Manjunatha, V, D'Souza, J. Dupont, T. Ramakrishnappa and G. Nagaraju, 'Ionic liquid intercalated  $V_2O_5$  nanorods: Synthesis and characterization' Bulletin of Materials Science, 38 (2015) 1 (ISSN: 0250-4707)

35. Danith kumar, L.S. Reddy Yadav, K. Manjunath, K. Lingaraju, G. Nagaraju, H. Nagabhushana, R.B. Basavaraj, 'Photocatalytic and anti-bacterial studies: Synthesis of

ZnO nanoparticles via green chemistry route', CSVTU Research Journal 7 (**2014**) 113 (ISBN 0974-8725) (**Special issue dedicated to Bharat Ratna Prof. CNR Rao**)

34. G. Nagaraju, 'Ionic liquids assisted hydrothermal synthesis of Palladium nanoparticles', CSVTU Research Journal 7 (2014) 105 (ISBN 0974-8725) (Special issue dedicated to Bharat Ratna Prof. CNR Rao)

33. T.N. Ravishankar, K. Sureshkumar, J. Dupont, T. Ramakrishnappa, G. Nagaraju, 'Ionic liquid assisted hydrothermal synthesis of  $TiO_2$  nanoparticles and its applications towards the photocatalytic activity and electrochemical sensor', J. Experimental Nanoscience,10 (2015) 1358 (ISSN 1745-8080)

32. K. Manjunath, T. N. Ravishankar, K. Lingaraju, Danith Kumar, H. Raja Naika, H. Nagabhushan, D. Samrat, T. Ramakrishnappa, Vishwanatha Reddy, J. Dupont, S.C. Sharma and **G. Nagaraju**, 'Electrochemical sensing of dopamine and antibacterial properties of ZnO nanoparticles synthesized from solution combustion method', Int. Journal of Nanoscience, 14 (2015)155 (ISSN 1745-8080)

31. T.N. Ravishankar, T. Ramakrishnappa, H. Nagabhushana, V. deSouza, J. Dupont and G. Nagaraju, 'Hydrogen generation and degradation of trypan blue by Fern-like structured Silver doped TiO<sub>2</sub> nanoparticles', New Journal of Chemistry, 40 (2016) 3578. (ISSN 1144-0546)

30. T.N. Ravishankar, H. Rajanaika, T. Ramakrishnappa and G. Nagaraju, 'Synthesis, characterization of  $CeO_2$  nanoparticles via solution combustion method for photocatalytic and antibacterial activity studies' Chemistry Open, 4 (2015) 77 (<u>ISSN 2191-1363</u>)

29. Alamelu K. Ramasami, H. Raja Naika, H. Nagabhushana, T. Ramakrishnappa, Geetha R. Balakrishna, **G. Nagaraju, 'Tapioca starch :** An Efficient fuel in Gel-Combustion Synthesis of Photocatalytically and Anti-microbially active ZnO Nanoparticles' Materials Characterization, 99 (**2015**) 266 (<u>ISSN: 1044-5803</u>)

H. Raja Naika, K. Lingaraju, K. Manjunath, Danith Kumar, G. Nagaraju, H. Nagabhushana, D. Suresh, 'Green synthesis of CuO nanoparticles using Gloriosa superba L. extract and their antibacterial activity', Journal of Taibah University for Science, 9 (2015) 7. (<u>ISSN: 1658-3655</u>)

27. Danith kumar, L.S. Reddy Yadav, K. Lingaraju, H. Raja Naika, K. Manjunath,D. Suresh, H. Nagabhushana, S.C. Sharma and G. Nagaraju, Antibacterial and

photocatalytic activites of ZnO nanoparticles: Synthesis via combustion method. Int. Journal of Latest Technology in Engg. Management & Applied Science 3 (2014) 155 (ISSN 2278-2540)

26. N. Suresh, S. Venkateswaran, **G. Nagaraju**, S. Seetharamu, Studies on the mechanical and wear properties of Al-Si alloy-copper coated ceramic microsphere composites, Journal of Science 4 (**2014**) 313

25. K. Manjunath, T. N. Ravishankar, Priyanka K.P, H. Raja Naika, H. Nagabhushana, Thomas Varghese, G. Nagaraju and T. Ramakrishnappa, 'Facile combustion synthesis of ZnO nanoparticles using Cajanus cajan (L.) and its multidisciplinary applications'. Materials Research Bulletin, 57 (2014) 325 (<u>ISSN: 0025-5408</u>)

This article has been written-up as a news item in Nature Publushing Group-Asia Materials, (Nature India)

http://www.natureasia.com/en/nindia/article/10.1038/nindia.2014.108

24. K. Manjunath, T.N. Ravishankar, G. Renato, J. Dupont, S.C. Sharma, T. Ramakrishnappa, **G. Nagaraju**, Ionothermal synthesis of anatase and rutile  $TiO_2$  nanoparticles for hydrogen evolution, Int. Journal of Latest Technology in Engineering, Management & Applied Science 3 (2014) 338 (ISSN 2278-2540)

23. T.N. Ravishankar, K. Manjunath, B.S. Ravikumar, S. Sarakar, H. Nagabhushana, G.T. Chandrappa and **G. Nagaraju**, Comparison study of photocatalytic degradation of trypan blue by ZnO and Ag Doped ZnO nanoparticles, Materials Science in Semiconductor Processing 26 (2014) 7 (ISSN: 1369-8001)

22. P. Chithaiah, G.P. Nagabhushana, **G.Nagaraju**, G.T. Chandrappa, Synthesis of single crystalline  $(NH_4)_2V_6O_{16}$  .1.5H<sub>2</sub>O nest-like Structures, Physica E 59 (**2014**) 218 (**ISSN: 1386-9477**)

21. **G. Nagaraju,** K. Manjunath, T.N. Ravishankar, B.S. Ravikumar, H. Nagabhushan, G. Ebeling, J. Dupont, Ionic liquid assisted hydrothermal synthesis of  $TiO_2$  nanoparticles and its application in photocatalysis J. Materials Science, 48 (**2013**) 8420 (**ISSN 0022-2461**)

20. **G. Nagaraju,** 'Ultra long single crystalline  $Na_{0.28}V_2O_5$  nanofibers/nanorings synthesized by facile one pot green approach and its lithium storage behavior', J. Brazilian Chemical Society, 24 (2013) 1662 (ISSN 0103-5053)

G. Nagaraju, T. N. Ravishankar, K. Manjunatha, S. Sarkar, H. Nagabhushana, R. Goncalves, J. Dupont, Ionothermal synthesis of TiO<sub>2</sub> nanoparticles: Photocatalytic hydrogen generation, Materials Letters, 109 (2013) 27 (<u>ISSN: 0167-577X</u>)

 G. Nagaraju, G. Ebeling, R.V. Goncalves, S.R. Teixeira, D.E. Weibel, J. Dupont, 'Controlled growth of TiO<sub>2</sub> nanomaterials in ionic liquids for photocatalytic H<sub>2</sub> generation, J. Molecular Catalysis A- Chemical, 378 (2013) 213 (<u>ISSN: 1381-1169</u>)

17. G.P. Nagabhushana, **G. Nagaraju**, G.T. Chandrappa, 'Synthesis of bismuth vanadate: Its application in  $H_2$  evolution and sunlight-driven photodegradation' J.Materials Chemistry 1 (2012) 388 (ISSN 0959-9428)

16. **G.** Nagaraju, 'Hydrothermal synthesis of  $Na_{0.28}V_2O_5$  nanobelts and its electrochemical behavior in lithium battery', ZAAC 638 (2012) 2286 (<u>ISSN 0044-2313)</u>

15. **G. Nagaraju,** S. Sarkar, J. Dupont and S. Srenivasan,  $V_2O_5$  nanorings/nanorods and  $V_2O_5/RGO$  composite fabricated by a facile one pot synthesis and its lithium storage Behavior', J. Solid State Ionics 227 (2012) 30 (ISSN: 0167-2738)

14. **G. Nagaraju** and G.T. Chandrappa, 'Solution phase synthesis of  $Na_{0.28}V_2O_5$  nanobelts into nanorings and the electrochemical performance in Li battery', Materials Research Bulletin 47 (**2012**) 32161 (**ISSN: 0025-5408**)

13. **G. Nagaraju,** P. Chithaiah, S. Ashoka and N. Mahadevaiah, 'Vanadium pentoxide nanobelts: One pot synthesis and its lithium storage behavior', Crystal Research and Technology, 47 (2012) 868 (ISSN 0232-1300)

12. **G. Nagaraju** and S. Ashoka, 'One step synthesis of monoclinic  $VO_2$  (B) bundles of nanorods: Cathode for Li ion battery', Materials Characterization, 68 (2012) 58 (ISSN: 1044-5803)

11. **G. Nagaraju** and G.T. Chandrappa, 'Hydrothermal synthesis of layered CdSe nanostructural materials', J. Materials Science and Technology, 28 (2012) 495 (ISSN: 1005-0302)

10. S. Ashoka, **G. Nagaraju** and G.T. Chandrappa, 'Reduction of KMnO4 to Mn3O4 via hydrothermal process' *Materials Letters* 64 (2010) 2538 (ISSN: 0167-577X)

9. B. Umesh, B. Eraiah, H. Nagabhushana, B.M Nagabhushana, G. Nagaraju, C. Shivakumara, R. P. S. Chakradhar, 'Synthesis and characterization of spherical

and rod like nanocrystalline  $Nd_2O_3$  phosphors', J. Alloys and Compounds 509 (2011) 1146 (ISSN: 0925-8388)

8. S. Ashoka, **G. Nagaraju** and G.T. Chandrappa, 'Single-crystal cadmium carbonate nanoribbons and nanorings synthesis via hydrothermal method'. Mater. Research Bull. 45 (2010) 1736. (Appeared in Cover Page). (ISSN: 0025-5408)

7. **G. Nagaraju,** S. Ashoka, C.N. Tharamani and G.T. Chandrappa, 'Surfactant free hydrothermal synthesis of ZnO nanowires, nanorods and microrods', Materials science in semiconducting processing 13 (2010) 21. (Appeared in 5<sup>th</sup> place of top 25 hottest articles)

http://top25.sciencedirect.com/subject/materials-science/15/journal/materials-science-in-semiconductor-processing/13698001/archive/30/

H. Nagabhushana, G. Nagaraju, B.M. nagabhushana, C. Shivakumara and R.P.S. Chakradhara, Hydrothermal synthesis and characterization of CaSO<sub>4</sub> pseudomicrorods, J. Phylosophical magazine, 90 (2010) 289 (<u>ISSN 1478-6435</u>)

5. S. Ashoka, G. Nagaraju, C.N. Tharamani and G.T. Chandrappa, 'Ethylene glycol assisted hydrothermal synthesis of flower like ZnO architecture', Mater. Lett. 63, (2009) 873 (ISSN: 0167-577X)

4. **G. Nagaraju,** S. Ashoka, C.N. Tharamani and G.T. Chandrappa, 'A facile low temperature hydrothermal route to CdSO<sub>4</sub> nanotubes/rods', Mater. Lett. 63 (**2009**) 492 (**ISSN: 0167-577X**)

3. **G. Nagaraju,** K.V. Thipperrudraiah, G.T. Chandrappa and J. Livage, 'Synthesis and characterization of silver molybdate nanowires, nanorods and multipods', Mater. Sci. Bull. 31 (2008) 1 (ISSN: 0250-4707)

2. **G. Nagaraju,** K.V. Thipperudraiah and G.T. Chandrappa, 'Organic assisted hydrothermal route to MoO<sub>2</sub>/HDA composite microspheres and their characterization', Mater. Research Bull. 43 (2008) 32971 (<u>ISSN: 0025-5408</u>)

1. **G. Nagaraju,** C.N. Tharamani, G.T. Chandrappa and J. Livage, 'Hydrothermal synthesis of amorphous  $MoS_2$  nanofiber bundles via acidification of ammonium heptamolybdate tetrahydrate', Nanoscale Research Lett. 2 (2007) 461 (ISSN: 1931-7573)

 G. Nagaraju, G. Ebeling, R.V. Goncalves, S.R. Teixeira, D.E. Weibel, J. Dupont, 'Controlled growth of TiO<sub>2</sub> nanomaterials in ionic liquids for photocatalytic H<sub>2</sub> generation, J. Molecular Catalysis A- Chemical, 378 (2013) 213

17. G.P. Nagabhushana, G. Nagaraju, G.T. Chandrappa, 'Synthesis of bismuth vanadate: Its application in  $H_2$  evolution and sunlight-driven photodegradation', J. Materials Chemistry 1 (2012) 388

16. **G.** Nagaraju, 'Hydrothermal synthesis of  $Na_{0.28}V_2O_5$  nanobelts and its electrochemical behavior in lithium battery', ZAAC 638 (2012) 2286

15. **G. Nagaraju,** S. Sarkar, J. Dupont and S. Srenivasan,  $V_2O_5$  nanorings/nanorods and  $V_2O_5/RGO$  composite fabricated by a facile one pot synthesis and its lithium storage Behavior', J. Solid State Ionics 227 (**2012**) 30

14. **G. Nagaraju** and G.T. Chandrappa, 'Low temperature hydrothermal synthesis of  $Na_{0.3}V_2O_5$  nanofibers and its electrochemical behavior as cathode material in rechargeable lithium battery', Materials Research Bulletin 47 (**2012**) 3216

13. **G. Nagaraju**, P. Chithaiah, S. Ashoka and N. Mahadevaiah, 'Vanadium pentoxide nanobelts: One pot synthesis and its lithium storage behavior', Crystal Research and Technology, 47 (**2012**) 868

12. **G. Nagaraju** and S. Ashoka, 'One step synthesis of monoclinic  $VO_2$  (B) bundles of nanorods: Cathode for Li ion battery', Materials Characterization, 68 (**2012**) 58

11. **G. Nagaraju** and G.T. Chandrappa, 'Hydrothermal synthesis of layered CdSe nanostructural materials', J. Materials Science and Technology, 28 (**2012**) 495

10. S. Ashoka, G. Nagaraju and G.T. Chandrappa, 'Low temperature synthesis of octahedral  $Mn_3O_4$  nanoparticles: Hydrothermal decomposition-reduction route' *Materials Letters* 64 (2010) 2538

9. B. Umesh, B. Eraiah, H. Nagabhushana, B.M Nagabhushana, G. Nagaraju, C. Shivakumara, R. P. S. Chakradhar, 'Synthesis and characterization of spherical and rod like nanocrystalline  $Nd_2O_3$  phosphors', J. Alloys and Compounds 509 (2011) 1146

8. S. Ashoka, G. Nagaraju and G.T. Chandrappa, 'Single-crystal cadmium carbonate nanoribbons and nanorings synthesis via hydrothermal method'. Mater. Research Bull. 45 (2010) 1736. (Appeared in Cover Page).

7. **G. Nagaraju,** S. Ashoka, C.N. Tharamani and G.T. Chandrappa, 'Surfactant free hydrothermal synthesis of ZnO nanowires, nanorods and microrods', Materials science in semiconducting processing 13 (2010) 21. (Appeared in 5<sup>th</sup> place of top 25 hottest articles)

http://top25.sciencedirect.com/subject/materials-science/15/journal/materials-science-in-semiconductor-processing/13698001/archive/30/

H. Nagabhushana, G. Nagaraju, B.M. nagabhushana, C. Shivakumara and R.P.S. Chakradhara, Hydrothermal synthesis and characterization of CaSO<sub>4</sub> pseudomicrorods, J. Phylosophical magazine, 90 (2010) 289

5. S. Ashoka, G. Nagaraju, C.N. Tharamani and G.T. Chandrappa, 'Ethylene glycol assisted hydrothermal synthesis of flower like ZnO architecture', Mater. Lett. 63, (2009) 873

4. **G. Nagaraju,** S. Ashoka, C.N. Tharamani and G.T. Chandrappa, 'A facile low temperature hydrothermal route to CdSO<sub>4</sub> nanotubes/rods', Mater. Lett. 63 (**2009**) 492

3. **G. Nagaraju,** K.V. Thipperrudraiah, G.T. Chandrappa and J. Livage, 'Synthesis and characterization of silver molybdate nanowires, nanorods and multipods', Mater. Sci. Bull. 31 (2008) 1

2. **G. Nagaraju,** K.V. Thipperudraiah and G.T. Chandrappa, 'Organic assisted hydrothermal route to MoO<sub>2</sub>/HDA composite microspheres and their characterization', Mater. Research Bull. 43 (**2008**) 3297

1. **G. Nagaraju,** C.N. Tharamani, G.T. Chandrappa and J. Livage, 'Hydrothermal synthesis of amorphous  $MoS_2$  nanofiber bundles via acidification of ammonium heptamolybdate tetrahydrate', Nanoscale Research Lett. 2 (**2007**) 461

## **Projects:**

No.	Title	Funding agency	Amount	Status
01	Vanadium oxide based nanostructured materials and its reduced graphene oxide composite: Electrochemical performance in Lithium battery.	DST- Fastrack (Young Scientist fellowship), New Delhi	18.58 lakh	Completed
02	Green Synthesis of pure and doped nano metal oxides, metal oxide-reduced graphene oxide hybrid nanomaterials: Applications to hydrogen generation, lithium battery, energy saving, photo degradation and biological effects.	DST Nanomission, New Delhi	154.49 lakhs	Ongoing
03	Synthesis of Ta <sub>2</sub> O <sub>5</sub> – Reduced Graphene Oxide Hybrid Nanomaterials: Cathode Material for Lithium Battery	ISRO- RESPOND, Trivendrum	14.86 lakh	Ongoing
04	Oxide/sulphides of Titanium and Molybdenum - Reduced graphene oxide nanostructural hybrid materials: Electro chemical performance in Lithium battery.	BRNS-DAE, BARC, Bombay	22.22 lakh	Ongoing
05	Green synthesis of BiVO <sub>4</sub> -RGO hybrid nanomaterials: Application to water splitting reaction, lithium battery and photodegradation.	VGST, Govt. of Karnataka	6 lakh	Completed
06	Synthesis of metal oxide/sulphide – graphene hybrid nanomaterials for lithium ion battery, hydrogen generation, photodegradation, LED applications, biological activities and sensor applications	COE, TEQIP SIT, Tumakuru	5.67 lakh	Completed

# Academic Qualifications

May 2011- May 2012	Postdoctoral Fellow
	Supervisor: Prof. Jairton Dupont
	Laboratory of Molecular Catalysis
	Institute of Chemistry-UFRGS
	Porto Alegre, Brazil
Oct 2008- April 2011	Postdoctoral Fellow
	Materials Electrochemistry-Lithium ion battery
	Supervisor: Prof. S. Sampath
	Department of Inorganic and Physical Chemistry
	Indian Institute of Science, Bangalore
Jun 2004 –Sept 2008	Doctor of Philosophy
	Chemistry-Materials Science
	Supervisor: Dr. G.T. Chandrappa
	Department of Chemistry, Central College Campus,
	Bangalore University, Bangalore
1998-2000	Master of Science (First Class, Physical Chemistry)
	Department of Chemistry
	Central College Campus
	Bangalore University, Bangalore
1995-1998	Bachelor of Science (First Class, Chemistry, Phys. & Maths.)
	Government First Grade College, Tumkur
	Bangalore University, Bangalore

## **Research/Academic Experience**

Oct 2014 – Till now	Assistant Professor
	Dept. of Chemistry
	Siddaganga Institute of Technology
	Tumkur 572 103
Oct 2013-Sept 2014	Assistant Professor
	Dept. of Chemistry
	BMS Institute of Technology
	Bangalore
July 2012-Sept. 2013	Assistant Professor
	Center for Nano and Material Sciences
	Jain University, Jain Global Campus,
	Jakkasandra, Kanakapura Talluk

### 1. Title of Postdoc at UFRGS, Porto Alegre, Brazil

### CNPq- TWAS FELLOWSHIP PROGRAMME

**Title:** Controlled growth and crystallization  $TiO_2$  nanomaterials in ionic liquids for enhanced Photocatalytic activity.

### 2. Title of Postdoc at Indian Institute of Science, (IISc), Bangalore, India

**Title:** Synthesis of ternary metal phospho chalcogenoides and layered metal oxides: cathode materials for Li battery.

### 3. Title of Doctoral research work

Title: Synthesis and characterization of hydrothermally derived nano/micromaterials.

4. Worked as a Project Assistant	:	Prof. E. Arunan
(2001 - 2002)		Dept. of Inorganic and Physical Chemistry,
		Indian Institute of Science, Bangalore.

**Title:** Abinitio calculation using Gaussian - 94 for unimolecular elimination from ethyl chloride, ethyl alcohol, dichloro ethane, etc.

### Inaugural talk:

1. Delivered a inaugural talk on 'Synthesis of metal oxide nanomaterials for diverse applications' at Kuppam Engineering College, Kuppam on 24-03-2017.

### **Invited talk**

11. Delivered a talk on 'Metal oxide nanomateials : Lithium ion battery and Photocatalytic water splitting reaction' at one week Faculty Development Program on "Functional Materials for Industrial Applications (FMIA-2018) from  $23 - 28^{\text{th}}$  July 2018 organized by Department of Chemistry, Physics, RIT & SRI, Bangalore.

10. Delivered a talk entitled 'Green synthesis and characterization of meal oxide nanoparticles' at, at Faculty Development Programme on 'Recent Advances in Nanotechnology for a Sustainability World-2018, from 19th -25th June 2018, conducted by Dept. of Biotechnology, Dayananda Sagar College of Engineering, Bengaluru on 21-06-2018.

9. Delivered a talk on 'Metal oxides nanoparticles for lithium ion battery and water splitting reaction' at International Conference on Innovations and Challenges in Science and Technology, (ICIST-2018) at Dept. of Science and Humanities, Donbosco Institute of Technology, Kumbalagodu, Bangalore during 24-26<sup>th</sup>, May 2018.

8. Delivered a talk on 'Chemistry of Nanomaterials: Application and Opportunities' at Dept. of the Chemistry, Govt. First Grade Women College, Tumakuru on 27-03-2018 under Internal Quality Assurance Cell.

7. Delivered a talk on 'Metal oxides nanoparticles for lithium ion battery and water splitting reaction' at 'Current Advances in Chemical Sciences'' (NCCACS –2018)' on 16-03-2018 organized by PG Department of Chemistry, University College of Science, Tumkur University, Tumakuru

6. Delivered a talk on 'Green Synthesis of Nanomaterials: Characterization and its diverse applications', at Quality Improvement Programme (QIP) on Advanced Trends in Pharmaceutics, at 12-03-2018 at Department of Pharmaceutics, JSS College of Pharmacy, Ooty, Tamilunadu.

5. Delivered a talk on 'Metal oxide hybrid nanomaterials for energy related applications' at AICTE sponsored Two weeks 'National Level Faculty Development Programme' on 'Advanced Materials & Manufacturing Technology' Organized by Dept. of Mechanical Engg. MSRIT, Bangalore 4<sup>th</sup> -16<sup>th</sup> Dec. 2017.

4. Delivered a talk on 'Basic concept of Nanoscience and Technology' at One day lecture workshop on 'Recent Advances in Interdisclipenary Research in Science' at Dept. of Chemistry and Physics, Sridevi Postgraduate Center, Tumakuru on 18-04-2017

 Delivered a talk on 'Synthesis of metal oxide nanomaterials for various applications' at Dept. of Chemistry, Donbosco Institute of Technology, Kumbalagodu, Bangalore 25<sup>th</sup> Oct. 2016.

2. Delivered a talk on 'Synthesis of metal oxide hybrid/composite nanomaterials for mechanical and energy related applications' at one week workshop on nanomaterials and nanocomposites, 20<sup>th</sup> to 25<sup>th</sup> June 2016 conducted by Dept. of Mechanical Engg. MSRIT, Bangalore,

 'Ionothermal synthesis of TiO<sub>2</sub> nanoparticles: Photocatalytic hydrogen generation', Int. Conference on Advanced Nanocomposites for Construction Materials (ICNC-2013) Mahatma Gandhi University, Kottayam, Kerala, 12-14<sup>th</sup> March, **2013.**

### Chair person

3. At National Conference on 'Materials Science and Application' during 9<sup>th</sup> May 2018 at Dept. of Chemistry, SJB Institute of Technology, Bangalore.

2. At 'International Conference on current trends in Engineering, Science and Technology, during 5-7<sup>th</sup> Jan. 2017 held at Don Bosco Institute of Technology conducted an

1. At Int. Conference on Advanced Nanocomposites for Construction Materials (ICNC-

2013) Mahatma Gandhi University, Kottayam, Kerala, 12-14<sup>th</sup> March, **2013.** 

### As a Organizing Committee Member

1. International Conference on Innovations and Challenges in Science and Technology, (ICIST-2018) at . of Dept. of Science and Humanities, Donbosco Institute of Technology, Kumbalagodu, Bangalore during 24-26<sup>th</sup>, May 2018.

Ι	Details of research scholars registered for Ph.D. programme under VTU, Belgaum.							
No.	Name	Year of Registration	Title	Position	Contact details			
01	Lakshmi	2014	Synthesis of metal oxide	Research				
	Sagar Reddy		nanomaterials for	Scholar	9731282954			
			photocatalytic and		lsr.yadav@gmail.c			
			antibacterial activities		om			
02	Udayabhanu	2015	Diverse application of	SRF -CSIR				
			pure/doped metal	DST -NM	8867492598			
			oxide/sulphides and its		udayabhanubc@g			
			reduced graphene oxide nano		mail.com			
			hybrid nanomaterials					
03	Manukumar	2015	Facile synthesis of metal	JRF				
	K N		oxides/sulphides	ISRO	9483984185			
			nanomaterials- reduced		manukumarkn88			
			graphene oxide hybrid		@gmail.com			
			nanomaterials: Applications					
			to lithium batteries and					
			hydrogen generation					

04	Pavithra N S	2015		Synthe	sis of metal oxide	Res	earch	
				nanoparticles: Photocatalytic		Sch	olar	9740919181
				and bio	ological applications			pavins.chem@
								gmail.com
05	Jayalakshmi	2016		Synthe	esis of pure/doped		7	
	Т			metal o	oxides or metal oxides-	(NE	ΕT	9945256884
				rGO h	ybrid nano materials:	qua	lified)	jayareddy521@
				Applic	ations to lithium	DS	Γ-	gmail.com
				battery	and photocatalytic	SEF	RB	
				activity	ý			
Π	Details of Re	search	Fellow	workii	ng under sponsored	proje	ects	
07	Shivaraj B. Pa	atil	JRF		BRNS-BARC sponse	ored	red 9611580191	
					project		<u>m</u>	<u>1195.sp@gman.co</u>
0.0			IDE			07/0500001		2204
08	Rohini B.S.		JRF		sponsored project		9745522384 rohinigowali@gmail.com	
					1 1 5			
09	Shivaraj G.C.		JRF		BRNS-BARC sponse	ored	shivugo	c@gmail.com
					project			
10	Details of fu	ll time	Ph D	studan	ts registered at diffe	ront	Univers	ities but working
10	under my guidance						attes but working	
11	Sunitha B. Pa	til		Kı	vempu University,			
	Dept. of Indus	strial C	hemistr	y Sh	Shivamogga		H.S. Bhojya Naik	
	Kuvempu Un	iversity	΄,		Γ		Department of Studies and	
	Shivamogga				R		Research in Industrial	
					Che	Chemistry School of		
	Madhukar					Che	emical S	ciences, Kuvempu
	Dept. of Indus	strial C	hemistr	y Ku	ıvempu University,	Uni	iversity,	Shivamogga
	Kuvempu Un	iversity	΄,	Sh	Shivamogga			
	Shivamogga							
				1		1		

	Harish Phattepur	VTU, Belagaum	Dr. Gourishankar
	Dept. of Chemical Engg.		Prof. and Head
	SIT, Tumakuru		Dept. of Chemical Engg. SIT,
			Tumakur
III	Details of par time Ph.D. st	udents registered at o	different universities and working in
	our laboratory		
	Archana		Dr. K. Nagaraju
			Dept. of Chemistry,
		JNTU,	MSRIT, Bangalore
		Ananthapura	and
			K.B. Chandra Sekhar
			Department of Chemistry, R & D
			Cell, JNTUA, Anantapuram, 515001
	J. Thanuja	Tumakuru	Dr. H. Raja Naika
	Dept. of studies and	University,	Asst. Professor,
	research in Environmental	Tumkur	Dept. of studies and research in
	Science,		Environmental Science,
	Tumakuru University,		Tumakuru University,
	Tumakuru.		Tumakuru.
	Mrs. Puneetha	VTU, Belagaum	Dr. K. Nagaraju
	Asst. Professor,		Dept. of Chemistry,
	Dept. of Chemistry,		MSRIT, Bangalore
	JSS College of Engg.		
	Bangalore.		
	Shreenivasa L	Dayananda Sagar	Dr. S. Ashoka
		University, Bangalore	Department of Chemistry, School of Engineering.
		Dunguiore	Dayananda Sagar University,
			Bangalore
	Varsha		Dr. T. Ramakrishnappa
		v IU, Belagaum	Assoc. Prof. and Head, Dept. of Chemistry
			BMSIT, Bangalore

Mrs. Nethra	Tumkur Univris Tumkur	sty, ,	Dr. Suresh, Asst. Professor Dept. of Chemistry, Tumakuru University, Tumakuru.						
Students working for rese	Students working for research experience and publication								
Babu V.S.	Research Asso	ociate	9886061921 babu8733@gmail.com						
Pavitra V	Research Assi	stant	6361084911 pavitrav1@gmail.com						
Details of faculties/researc	chers used the la	b facil	ities to upgrade their knowledge						
Dr. Shubha		Dr. M	anjunatha						
Professor,		Assoc. Professor,							
Dept. of Science and Huma	nities,	Dept. of Science and Humanities,							
Donbosco Institute of Tech	nology,	Donbosco Institute of Technology,							
Kumbalagodu, Bangalore		Kumbalagodu, Bangalore							
9535507171									
Dr. Mallikarjuna Swamy		Navee	en Kumar						
Asst. Professor		Asst. Professor & Research Scholar							
Dept. of PG Chemistry,		Dept. of Mechanical Engineering							
JSS College, Mysore		Kuppam Engineering College, Kuppam							
Dr. Vinuth									
Asst. Professor									
Department of Chemistry									
NIE Institute of Technology	/								
Mysuru, Karnataka									
Engg/M.Sc. students work	s for their resea	rch ex	perience.						
Mr. Hemanth		78996	76790						
5 <sup>th</sup> Semester, Chemical Eng	g.								
SIT, Tumkur	SIT, Tumkur								

### **Conference Proceedings:**

29. <u>K. Lingaraju</u>, H. Rajanaika, H. Nagabhushana, R.B. Basavaraj, M. Raghavendra and **G. Nagaraju**, ' Green synthesis of reduced graphene oxide using aqueous leaves extract of euphorbia heterophylla' at Second National Conference on ' Biotechnological Solutions for Sustainable Environmental Management' held at Dept. of studies and research in Environmental Science, Tumakuru University, Tumakuru on 15<sup>th</sup> Feb. **2018.(ISBN No. 978-93-82694-49-6)** 

28. <u>Harish Phattepur</u>, B.S. Gowrishankar and **G. Nagaraju**, 'Fabrication of TiO<sub>2</sub> thin films by sol-gel spin coating method for the degradation of phenol', at Second National Conference on 'Biotechnological Solutions for Sustainable Environmental Management' held at Dept. of studies and research in Environmental Science, Tumakuru University, Tumakuru on 15<sup>th</sup> Feb. **2018**.

27. <u>Sunitha B. Patil</u>, **G. Nagaraju** and H.S. Bhojya Naik, 'Synthesis of Cu substituted nickel ferrite nanoparticles for the degradation of organic dye', at Second National Conference on 'Biotechnological Solutions for Sustainable Environmental Management' held at Dept. of studies and research in Environmental Science, Tumakuru University, Tumakuru on 15<sup>th</sup> Feb. **2018**.

26. <u>Shivaraj B. Patil</u>, **G. Nagaraju** and V. Udayakumar, 'Synthesis and characterization of  $\gamma$ -MnS nanoparticles', at Second National Conference on 'Biotechnological Solutions for Sustainable Environmental Management' held at Dept. of studies and research in Environmental Science, Tumakuru University, Tumakuru on 15<sup>th</sup> Feb. **2018.** 

25. <u>J. Puneetha,</u> Sunitha B. Patil, K. Nagaraju, **G. Nagaraju** and A. Rathna, 'Synthesis of TiO2 by Co-precipitation method for te degradation of Tryphan blue and Metgyl orrange' at Second National Conference on 'Biotechnological Solutions for Sustainable Environmental Management' held at Dept. of studies and research in Environmental Science, Tumakuru University, Tumakuru on 15<sup>th</sup> Feb. **2018**.

24. Udayabhanu, N. Lakshmana Reddy, M. V. Shankar, H. Nagabhushana, D. Suresh, H. Rajanaika, S. C. Sharma, G. Nagaraju, 'Comparison of  $H_2$  generation by pure and Cu doped TiO<sub>2</sub> nanoparticles', at National conference on 'Trends in Advanced Materials and their Applications' (TAMA-2017) on 30<sup>th</sup> Nov. 2017, held at Dept. of Physics, Tumkur University, Tumkur (**Best oral presentation award**) (**ISBN: 978-93-82694-44-1**)

23. S. B. Patil, G. Nagaraju, H. S. Bhojya Naik, 'Photocatalytic activity of Gadolinium substituted Nickel ferrite nanoparticles', at National conference on 'Trends in Advanced Materials and their Applications' (TAMA-2017) on 30<sup>th</sup> Nov. 2017, held at Dept. of Physics, Tumkur University, Tumkur (**Best poster presentation award**)

22. T. Jayalakshmi and G. Nagaraju, 'Synthesis and Characterization of  $CeO_2$ Nanoparticles: Application to Photocatalytic Activity and Photoluminescence' at National conference on 'Trends in Advanced Materials and their Applications' (TAMA-2017) on  $30^{th}$  Nov. 2017, held at Dept. of Physics, Tumkur University, Tumkur.

21. N. S. Pavithra and G. Nagaraju, 'Photocatalytic activity of combustion derived CuO nanoparticles' at National conference on 'Trends in Advanced Materials and their Applications' (TAMA-2017) on 30<sup>th</sup> Nov. 2017, held at Dept. of Physics, Tumkur University, Tumkur.

20.Danith Kumar, Chikkahnumantharayappa, H. Raja Naik, H. Nagabhushan, S.C.Sharama and **G. Nagaraju**, 'Photoluminescence and antibacterial studies of ZnO nanoparticles via solution combustion synthesis', National Conference on Recent Advances in Applied Chemistry (RAAC-2015) held at Dayananda Sagar University, Bengaluru on December 17<sup>th</sup>, 2015. (**ISBN: 978-93-85682-07-0**)

19. B.S Rohini, S. C. Sharma, H. Nagabhushana and **G. Nagaraju** 'P.Dactylifera mediated green synthesis of CuO:Zn nanoparticles, their structural and optical properties', National Conference on 'Advanced Functional Materials'(AFM-2015) held at Dayananda Sagar College of Engineering, Bengaluru on December 4-5<sup>th</sup>, 2015. (**ISBN: 978-93-85682-04-9**) 18. Udayabhanu, **G. Nagaraju**, D. Suresh, R. B. Basavaraj, H. Nagabhushana, H. Rajanaika , S. C. Sharma 'Photocatalytic activity of CeO<sub>2</sub> nanoparticles: synthesis using Punica granatum peel extract', National Conference on 'Advaced Functional Materials'(AFM-2015) held at Dayananda Sagar College of Engineering, Bengaluru on December 4-5<sup>th</sup> , 2015.

17. K.N. Manukumar, Udayabhanu and G. Nagaraju, 'Combustion synthesis of NiO nanoparticles using arecanut extract as fuel and its application in Photocatalytic activity',

National Conference on 'Advanced Functional Materials' (AFM-2015) held at Dayananda Sagar College of Engineering, Bengaluru on December 4-5<sup>th</sup>, 2015.

16. G.C. Shivaraju, Udayabhanu and **G. Nagaraju**, 'Green Chemical Route for the Designing of ZnO Nanoparticles: Application in Photocatalysis' National Conference on 'Advaced Functional Materials' (AFM-2015) held at Dayananda Sagar College of Engineering, Bengaluru on December 4-5<sup>th</sup>, 2015.

15. H. Rajanaika, K. Lingaranju, R. B. Basavaraj, H. Nagabhushana, G. Nagaraju and D. Suresh, 'Leucas aspera assisted Green synthesis of CuO nanoparticles and their photo catalytic and antibacterial activity', National Conference on Applications of Nanotechnology in Environmental Remediation held at Tumkur university, Tumkur on Oct 7<sup>th</sup>, 2015. (**978-93-826894-23-6**)

14. H. Rajanaika, K. Lingaraju, R. B. Basavaraj, H. Nagabhushana, **G. Nagaraju** and D. Suresh, 'Green synthesis of CuO nanoparticles and its photo catalytic degradation of methylene blue dye in the presence of UV light', National conference on Applications of Nanotechnology in Environmental Remediation held at Tumkur university, Tumkur on Oct 7<sup>th</sup>, 2015.

13. B. S. Rohini, R. B. Basavaraj, H. Nagabhushana, G. Nagaraju and S. C. Sharma,

'P.dectylifera mediated green synthesis of ZnO nanoparticles and their photo catalytic activity', National conference on Applications of Nanotechnology in Environmental Remediation held at Tumkur university, Tumkur on Oct 7<sup>th</sup>, 2015.

12. Udayabhanu, C. Anupama, D. Suresh, H. Nagabhushana, R. B. Basavaraj, S. C. Sharma, K. Lingaranju, H. Rajanaika and **G. Nagaraju**, 'Grape juice supported synthesis of ZnO nanoparticles: Photocatalytic and antimicrobial activity', National conference on Applications of Nanotechnology in Environmental Remediation held at Tumkur university, Tumkur on Oct 7<sup>th</sup>, 2015.

11. Anubhav Kaphle C. Anupama **G. Nagaraju,** 'Aegle marmelos juice assisted green synthesis of ZnO nanoparticles: photocatalytic and antibacterial activity', National conference on Applications of Nanotechnology in Environmental Remediation held at Tumkur university, Tumkur on Oct 7<sup>th</sup>, 2015.

10. **G. Nagaraju,** D.L.Narasimhamurthy, L.S. Reddy Yadav and H. Nagabhushana, 'Growth of cerium oxide on ZnO nanoparticles via solution combustion synthesis', National conference on Applications of Nanotechnology in Environmental Remediation held at Tumkur university, Tumkur on Oct 7<sup>th</sup>, 2015.

9. L.S. Reddy Yadav, C.Kavitha, **G. Nagaraju**, Green synthesis of MgO nanoparticles via solution combustion method. 'National Conference on Emerging Trends in Nano Applications (NCETN-2015) during March 27-28, 2015, held at Dept. of Chemistry, BMS Institute of Technology, Bangalore'.

8. B. Archana, **G. Nagaraju**, L. S. Reddy Yadav, K. B. Chandra Sekhar, K. Nagaraju Green synthesis of ZnO nanoparticles via solution combustion method, 'National Conference on Emerging Trends in Nano Applications (NCETN-2015) during March 27-28, 2015, held at Dept. of Chemistry, BMS Institute of Technology, Bangalore'.

7. Lohitesh Jaga Kumar, R. Thara, **G. Nagaraju**, effect of Effect of ZnO nanoparticles on the Mechanical Properties of LM6, 'National Conference on Emerging Trends in Nano Applications (NCETN-2015) during March 27-28, 2015, held at Dept. of Chemistry, BMS Institute of Technology, Bangalore'.

6. R .Thara, Lohitesh Jaga Kumar, **G. Nagaraju**, G S Shivashankar, Effect of Magnesium Oxide Nanoparticles Enhancement on Mechanical Properties of Aluminum Alloy LM6, 'National Conference on Emerging Trends in Nano Applications (NCETN-2015) during March 27-28, 2015, held at Dept. of Chemistry, BMS Institute of Technology, Bangalore'.

5. K. Lingaraju, R.B. Basavaraj, H. Rajanaik, H. Nagabhushan, G. Nagaraju, D. Suresh, B. Daruka Prasad, Guizotia abyssinica cass assisted synthesis of NiO nanoparticles: Strucutral and its antibacterial activities, 'National Conference on Emerging Trends in Nano Applications (NCETN-2015) during March 27-28, 2015, held at Dept. of Chemistry, BMS Institute of Technology, Bangalore'.

4. H. Rajanaik, K. Lingaraju, R.B. Basavaraj, H. Nagabhushan, **G. Nagaraju**, D. Suresh, B. Daruka Prasad, Green synthesis of  $CeO_2$  nanoparticles uing Nigella sativa seed extract and their photodegradative and antibacterial properties, 'National Conference on Emerging Trends in Nano Applications (NCETN-2015) during March 27-28, 2015, held at Dept. of Chemistry, BMS Institute of Technology, Bangalore'.

3. Synthesis and photocatalytic activity of MgO nanoparticles. National conference on Nanoscience and Nanotechnology, BMS Institute of Technology, Bangalore, Oct 11<sup>th</sup>, 2013, (**2013**) 55 (ISBN No. 978-81-928203-2-3)

2. Photocatalytic activity of  $TiO_2$  nanoparticles: Synthesis using functionalized ionic liquids'. Proceedings of National conference on Nanoscience and nanotechnology, BMS

Institute of Technology, Bangalore, Oct 11<sup>th</sup>, 2013, (**2013**) 142 (ISBN No. 978-81-928203-2-3)

1. Organic assisted hydrothermal synthesis of molybdenum oxide microspheres Proceedings of the solid state physics symposium (2007) 371

# List of papers presented in Conferences/Symposia

### a) International Conferences/Symposia

52. <u>A.S. Manjunatha</u>, N. S. Pavithra, **G. Nagaraju** and Puttaswamy, 'Photocatalytic activity of SnWO4 nanoparticles using lemon juice a fuel', at International Conference on Innovations and Challenges in Science and Technology, (ICIST-2018) at . of Dept. of Science and Humanities, Donbosco Institute of Technology, Kumbalagodu, Bangalore during 24-26<sup>th</sup>, May 2018.

51. <u>M. Madhukara Naik</u>, H.S. Bhojya Naik, **G. Nagaraju**, M. Vinuth, 'Nickel doped Cobalt ferrite nanoparticles as a Photocatalyst: Synthesis and dye degradation', at International Conference on Innovations and Challenges in Science and Technology, (ICIST-2018) at . of Dept. of Science and Humanities, Donbosco Institute of Technology, Kumbalagodu, Bangalore during 24-26<sup>th</sup>, May 2018 (**Oral presentaion**).

50. <u>N. S. Pavithra</u>, A.S. Manjunatha and **G. Nagaraju**, 'Hydrothermal synthesis of ZnWO<sub>4</sub> –rGO nanocomposites for visible light induced photocatalytic activities', at International Conference on Innovations and Challenges in Science and Technology, (ICIST-2018) at . of Dept. of Science and Humanities, Donbosco Institute of Technology, Kumbalagodu, Bangalore during 24-26<sup>th</sup>, May 2018.

49. <u>Udayabhanu</u>, Brij Kishore, S. C. Sharma, and **G. Nagaraju**, 'Green surfactant assisted ultrasound synthesis of 2D sheet-like MoO<sub>3</sub> for Li-ion battery', at International Conference on Innovations and Challenges in Science and Technology, (ICIST-2018) at . of Dept. of Science and Humanities, Donbosco Institute of Technology, Kumbalagodu, Bangalore during 24-26<sup>th</sup>, May 2018 (**Oral presentaion**).

48. <u>Sunitha B.Patil</u>, H.S. BhojyaNaik, **G.Nagaraju**, 'Synthesi sof Cu substituted Zinc ferrites and its photocatalytic activities', at International Conference on Innovations and Challenges in Science and Technology, (ICIST-2018) at . of Dept. of Science and

Humanities, Donbosco Institute of Technology, Kumbalagodu, Bangalore during 24-26<sup>th</sup>, May 2018.

47. <u>Harish Phattepur</u>, B.S.Gowrishankar and **G. Nagaraju**, 'Immobilised nano  $TiO_2$  on glass beads for photocatalytic degradation of phenol in batch re-circulated photo reactor', at International Conference on Innovations and Challenges in Science and Technology, (ICIST-2018) at . of Dept. of Science and Humanities, Donbosco Institute of Technology, Kumbalagodu, Bangalore during 24-26<sup>th</sup>, May 2018 (**Oral presentaion**).

**46.** <u>Sunitha B.Patil</u>, H.S. BhojyaNaik, **G.Nagaraju**, 'Photocatalytic application of copper doped nickel ferrite nanoparticles, presented at 'Int. Conf. on Nanomateirals and their applications' on March 1-2, 2018, University of Mysore, Mysore.

45. <u>M. MadhukaraNaik</u>, **G. Nagaraju**, H.S. BhojyaNaik,Effect of Al<sup>3+</sup> doping on Nickel ferrite nanocomposites; Synthesis via sol-gel method 'presented at 'Int. Conf. on Nanomateirals and their applications' on March 1-2, 2018, University of Mysore, Mysore.

44. <u>J.P. Shubha</u>, Udayabhanu, and **G. Nagaraju**, Synthesis of silver doped ZnO nanoparticles for photocatalytic applications, presented at 'Int. Conf. on Nanomateirals and their applications' on March 1-2, 2018, University of Mysore, Mysore.

43. <u>A.S. Manjunath</u>, N.S. Pavitra, M. Shivanna, Udayabhanu and **G. Nagaraju**, 'Lemon juice assisted green Synthesis, Characterisation of BiVO<sub>4</sub> nanomaterials: Application to Photocatalytic activity, presented at 'Int. Conf. on Nanomateirals and their applications' on March 1-2, 2018, University of Mysore, Mysore.

42. <u>N. S. Pavithra</u> and **G. Nagaraju**, Photocatalytic activities of surfactant assisted sonochemical synthesis of CuWO<sub>4</sub> nanomaterials, presented at 'Int. Conf. on Nanomateirals and their applications' on March 1-2, 2018, University of Mysore, Mysore.

**41.** <u>K. N Manukumar</u>, N. S. Pavithra, **G. Nagaraju**, Combustion derived CuO nanoparticles: Electrode material for Li-ion batteries, presented at 'Int. Conf. on Nanomateirals and their applications' on March 1-2, 2018, University of Mysore, Mysore.

40. Shivaraj B. Patil, <u>G. Nagaraju</u> and V. Udayakumar, 'Electrochemical performance of hydrothermally synthesized MnMoO<sub>4</sub> nanorods' presented at 'Int. Conf. on Nanomateirals and their applications' on March 1-2, 2018, University of Mysore, Mysore.

39. <u>Udayabhanu</u>, **G. Nagaraju**, Brijkishore and S.C. Sharma, 'Thermal Conversion of MnCO<sub>3</sub> to  $Mn_3O_4$ : Electrochemical Applications to Lithium Ion Battery,' at 4<sup>th</sup> Int. Conference on Nanoscience and Nanotechnology (ICONN 2017) held at Aug. 9-11, 2017 SRM University, Kattankulathur, Tamilunadu.

38. <u>T. Jayalakshmi</u> and **G. Nagaraju**, 'Template free synthesis of BiVO<sub>4</sub> nanoparticles and its electrochemical properties', Second Int. Conference on Electrochemical Science and Technology (ICONEST – 2017) held at Indian Institute of Science, Bengaluru, India during 10-12<sup>th</sup> August 2017

37. <u>Shivaraj B. Patil</u> and **G. Nagaraju**, 'Facile solvent combustion synthesis of  $MoO_3$  nanoparticles: As an anode for lithium ion batteries', Second Int. Conference on Electrochemical Science and Technology (ICONEST – 2017) held at Indian Institute of Science, Bengaluru, India during 10-12<sup>th</sup> August 2017

36. <u>L. Srenivasa</u>, S, Ashok, K. Yogesh and **G. Nagaraju**, 'Fabrication and characterization of nanostractured  $Fe_2V_4O_{13}$  electrode for Li-ion battery', Second Int. Conference on Electrochemical Science and Technology (ICONEST – 2017) held at Indian Institute of Science, Bengaluru, India during 10-12<sup>th</sup> August 2017

35. <u>K. N. Manukumar</u> and **G. Nagaraju**, 'Ionic liquid-assisted hydrothermal synthesis of SnS nanoparticles: Electrode materials for lithium ion batteries', Second Int. Conference on Electrochemical Science and Technology (ICONEST – 2017) held at Indian Institute of Science, Bengaluru, India during 10-12<sup>th</sup> August 2017

34. <u>L.S. Reddy Yadav</u>, K. Manjunath, G.K. Raghu, K. Lingaraju, K.H. Sudheer kumar, **G. Nagaraju**, Studies on Photocatalytic, Antibacterial and Electrocatalytic Performance of MgO Nanoparticles Synthesized by Green route, Int. Conference on 'Science and Technology: Future Challenges and Solutions (STFCS-2016)' held at University of Mysore, Mysore during Aug. 8-9, 2016.

33. P. Harish, Udayabhanu, **G. Nagaraju**, B. S. Gowrishankar, Synthesis of  $TiO_2$  by Hydrothermal method for the degradation of Rhodamine-B, Int. Conference on 'Science and Technology: Future Challenges and Solutions (STFCS-2016)' held at University of Mysore during Aug. 8-9, 2016.

32. Udayabhanu, **G. Nagaraju**, H. Nagabhushana, D. Suresh, S.C. Sharma, Synthesis of MoO<sub>3</sub>by green route method for Photocatalytic and photoluminescence studies, Int. Conference on 'Science and Technology: Future Challenges and Solutions (STFCS-2016)' held at University of Mysore during Aug. 8-9, 2016.

31. Shivaraju G C, Udayabhanu and **Nagaraju G**, Sonochemical Synthesis of Sr Doped ZnOand Its Photoluminescence Studies, Int. Conference on 'Science and Technology: Future Challenges and Solutions (STFCS-2016)' held at University of Mysore during Aug. 8-9, 2016.

30. <u>B. S. Rohini,</u> S. C. Sharma, H. Nagabhushana and **G. Nagaraju**, Green synthesis of ZnO nanoparticles: Photoluminescence studies, Int. Conference on 'Science and Technology: Future Challenges and Solutions (STFCS-2016)' held at University of Mysore during Aug. 8-9, 2016.

29. <u>Manukumar</u> and **G. Nagaraju**, Hydrothermal synthesis of  $CeO_2$ -TiO<sub>2</sub> hybrid nanomaterial, Int. Conference on 'Science and Technology: Future Challenges and Solutions (STFCS-2016)' held at University of Mysore during Aug. 8-9, 2016.

28. <u>T Jayalakshmi</u>, K. Nagaraju and **G. Nagaraju**, Synthesis and Characterisation of  $VO_2$  nanostractural materials, Int. Conference on 'Science and Technology: Future Challenges and Solutions (STFCS-2016)' held at University of Mysore during Aug. 8-9, 2016.

27. <u>Danith kumar</u>, Udayabhanu, **G. Nagaraju**, Chikkahanumanthrayappa, Effect of Li on  $CaTiO_3:Eu^{3+}$  nano phosphor synthesized via solution combustion synthesis, Int. Conference on 'Science and Technology: Future Challenges and Solutions (STFCS-2016)' held at University of Mysore during Aug. 8-9, 2016.

26. N. S. Pavithra and **G. Nagaraju**, Photocatalytic activity of surfactant assisted ZnWO<sub>4</sub> nanoparticles by sonochemical method, Int. Conference on 'Science and Technology: Future Challenges and Solutions (STFCS-2016)' held at University of Mysore during Aug. 8-9, 2016.

25. K. S. Mamatha, **G. Nagaraju** and H. M. Suresh Kumar, Novel synthesis of ZnO nanoparticles enhances photoluminescence and Photocatalytic activity, Int. Conference on 'Science and Technology: Future Challenges and Solutions (STFCS-2016)' held at University of Mysore during Aug. 8-9, 2016.

24. K. Manjunath, H. Rajanaik, H. Nagabhushan, J. Dupont, T. Ramakrishnappa, <u>G. Nagaraju</u>, Electrochemical sensing and Biological activities of ZnO nanoparticles: Synthesis via solution combustion method, International Conference on Advanced Materials and Technology (ICMAT-16), Jayachamarajendra College of Engg. Mysore, to be held on 28-29<sup>th</sup>, May **2016**. (**Oral presentation**)

23. Udayabanu, H. Nagabhushana, D. Suresh, H. Rajanaika. S C Sharma, **G. Nagaraju**, Hydrothermal synthesis of  $TiO_2$ -rGO by green chemical method, International Conference on Nanotechnology (ICNANAO-2016), held on April 21-23, **2016** at Dept. of Nanotechnology, Visweswaraya Technological University, Bangalore region, Muddenahalli, Chikkaballapura.

22. T. Jayalakshmi, K. Manjunatha and **G. Nagaraju**, Surfactant Assisted Synthesis of Nano  $V_2O_5$  Foam, International Conference on Nanotechnology (ICNANAO-2016), held on April 21-23, **2016** at Dept. of Nanotechnology, Visweswaraya Technological University, Bangalore region, Muddenahalli, Chikkaballapura.

21. G. C. Shivaraju, Dinesh Rangappa and G. Nagaraju, Photocatalytic activity of ZnO nanoparticles: Synthesis via solution combustion method, International Conference on Nanotechnology (ICNANAO-2016), held on April 21-23, **2016** at Dept. of Nanotechnology, Visweswaraya Technological University, Bangalore region, Muddenahalli, Chikkaballapura.

20. Alamelu K. Ramasami, S. Sarkar, B.S. Ravikumar, Geetha Balakrishna, **G. Nagaraju**, 'Synthesis of rhodium(IV) oxide nanoparticles by ionic liquid- assisted hydrothermal method', Int. conf. on Green Technology held at Sastra University, Thanjavur, 26-27 July **2013.** 

19. T. N. Ravishankar, K. Manjunatha, B.S. Anandakumar, B.S. Ravikumar, **G. Nagaraju**, G.T. Chandrappa, 'Synthesis of ZnO nanoparticles by low temperature solution combustion method and its application towards photocatalytic degradation'. Int. conf. on Green Technology held at at Sastra University, Thanjavur, 26-27 July **2013**.

18. **G. Nagaraju,** K. Manjunatha, T.N. Ravishankar, B.S. Ravikumar, R. Goncalves, J. Dupont, 'Synthesis of rutile  $TiO_2$  nanoparticles using ionic liquid: Hydrogen evolution', Int. conf. on nanomaterials and nanocomposites, synthesis, properties, and application, held at Dept. of Physics, Mother Theresa Women's University, Kadaikanal, Tamilnadu, July 12-13, **2013**.

17. Alamelu K Ramasami, B.S. Ravikumar, H. Nagabhushan, D. Suresh, Geetha Balakrishna and **G. Nagaraju**, 'Ionic liquid - assisted hydrothermal synthesis of silver vanadate nanorods', International conference on emerging trends in chemical and pharmaceutical sciences and 1<sup>st</sup> convention of ICCP, Dept. of Chemistry, JNTU, Ananthapur, Andra Pradesh, held at 28-30<sup>th</sup>, June **2013**.

16. T.N. Ravishankar, K. Manjunatha, D. Suresh, J. Dupont and G. Nagaraju, 'TiO<sub>2</sub> Nanoparticles: Synthesis via Ionothermal Method and its Photocatalytic Hydrogen Generation', International conference on emerging trends in chemical and pharmaceutical sciences and  $1^{st}$  convention of ICCP, Dept. of Chemistry, JNTU, Ananthapur, Andra Pradesh, held at 28-30<sup>th</sup>, June 2013.

15. G. Nagaraju, T.N. Ravishankar, K. Manjunatha, Geetha Balakrishna, Renato Goncalves, J. Dupont, 'Ionothermal synthesis of TiO<sub>2</sub> nanoparticles: Photocatalytic hydrogen generation', Int. Conference on Advanced Nanocomposites for Construction Materials (ICNC-2013) Mahatma Gandhi University, Kottayam, Kerala, 12-14<sup>th</sup> March, **2013. (Invited talk and Chair person)** 

14. **G. Nagaraju** and K. Manjunath, 'Hydrothermal synthesis of  $Na_{0.28}V_2O_5$  nanobelts and its electrochemical behavior in lithium battery'. International conference on materials science and technology, NITK, Surathkal, Mangalore, 17-19<sup>th</sup> Jan, **2013.** 

13. **G. Nagaraju,** K.Manjunath, P. Chithaiah and S. Ashoka,  $V_2O_5$  nanobelts: One pot synthesis and its lithium storage behavior', 5<sup>th</sup> Bangalore Nano, The Lalith Ashok, Bangalore dated 5-7, Dec **2012**.

12. **G. Nagaraju,** K. Manjunath and Geetha Balakrishna, 'Ionic liquid assisted hydrothermal synthesis of  $TiO_2$  nanoparticles'. International conf on recent advances in materials science, Tumkur University, Atria Hotel, Bangalore, dated 06- 08<sup>th</sup> Nov. **2012** 

11. **G. Nagaraju,** K. Manjunath and S. Ashoka 'Hydrothermal synthesis of  $VO_2$  (B) bundles of nanorods: Electrochemical performance in lithium battery'  $2^{nd}$  International Indo German Symposium on Green Chemistry and Catalysis for Sustainable Development, Mumbai, India October 29- 31, **2012.** 

10. **G. Nagaraju,** P. Migowski, G. Ebeling and J. Dupont, Controlled growth and crystallization of  $TiO_2$  nanomaterials in ionic liquids for  $H_2$  generation, International conference on micro reaction technology (IMRET 12), Lyon, France, Feb 20-22, **2012**.

9. S. Ashoka, **G. Nagaraju** and G.T. Chandrappa, Synthesis and characterization of hydrothermally derived ZnO nanorods, International Conference on Current Trends in Chemistry and Biochemistry, Dec. 16-18, **2009**.

8. H. Nagabhushana, G. Nagaraju, and G. T. Chandrappa, Synthesis, characterization and thermoluminescence studies of  $CaSO_4$  phosphor via hydrothermal route,

International Conference on Nanoscience and Nanotechnology (ICONSAT 2008) Kalpakum, Tamilnadu, February 27–29, **2008.** 

7. **G. Nagaraju,** S. Ashoka, G.T. Chandrappa and J. Livage, 'Studies on solution phase synthesis of surfactant free  $V_2O_5$  nanofibers', International Conference on Advances in Nanotechnology (ICAT-2008): MATS University, Raipur, Nov. 6-8, **2008.** 

6. **G. Nagaraju,** S. Ashoka and G.T. Chandrappa, 'Hydrothermal synthesis of layered CdSe nanostructural materials', Indo-Brazil Workshop on Molecular Materials Including Nanomaterials: National Chemical Laboratory, Pune, Oct. 5-6, **2007.** 

5. **G. Nagaraju** and G.T. Chandrappa, 'Synthesis and photoluminescence studies on ZnO microrods', International Conference on Nanoscience and Nanotechnology (ICNSNT 2006): University of Madras, Guindy Campus, Chennai, Aug. 26-28, **2006.** 

4. **G. Nagaraju,** K.V. Thipperudraiah and G.T. Chandrappa, 'Hydrothermal synthesis and characterization of CdSO<sub>4</sub> nanowires', 8<sup>th</sup> International Conference on Nanostructured Materials (NANO-2006): Indian Institute of Science, Bangalore, Aug. 20-25, **2006.** 

3. **G. Nagaraju,** K.V. Thipperudraiah and G.T. Chandrappa, 'Hydrothermal synthesis of MoS<sub>2</sub> nanofibers bundles', International Conference on Nanoscience and Technology (ICONSAT-2006): Indian Institute of Technology, New Delhi, March 16-18, **2006**.

2. **G. Nagaraju** and G.T. Chandrappa, International Symposium on Recent Development in Metal Oxides and Related Materials', Indian Institute of Science, Bangalore, Jan. 9-11, **2006.** 

1. **G. Nagaraju** and G.T. Chandrappa, Indo-US workshop on 'Nanotechnology: Issues in interdisciplinary research and education', Indian Institute of Science, Bangalore, Aug. 11-13, **2004.** 

### b) National Conferences/symposium:

61. <u>Sunitha B. Patil</u>, H.S. Bhojya Naik and **G. Nagaraju** 'Sugarcane juice mediated ecofriendly synthesis of visible light active zinc ferrite nanoparticles: Application to degradation of mixed dyes' at National Conference on 'Materials Science and Application' during 9<sup>th</sup> May 2018 at Dept. of Chemistry, SJB Institute of Technology, Bangalore. (**Best oral presentation award**) 62. Golla Ramesh, Udaybhanu, G. Nagaraju and Raghavendra Kumar, on 'Synthesis and characterization of new Ru (II) complexes as sensitizers for applications in dye sensitized solar cells' at National Conference On "Current Advances in Chemical Sciences" (NCCACS –2018) held at Department of Chemistry, University College of Science, Tumkur University, Tumakuru on 13-03-2018 (Best poster presentation)

61. <u>Y.E. Satheesha</u>, G.N. Mahalaxmi, Fareeda Banu,H. Nagabhushana, **G. Nagaraju**, Nivedita R.Desai and D.B. Aruna Kumar, on 'Green synthesis and characterization of Nickel Oxide nanoparticles Using Eucalyptus Corymbia Leaves Extract at National Conference On "Current Advances in Chemical Sciences" (NCCACS –2018) held at Department of Chemistry, University College of Science, Tumkur University, Tumakuru on 13-03-2018 (Poster presentation)

60. <u>Udayabhanu</u>, M.V. Shankar, S.C. Sharma and **G. Nagaraju**, 'Fabrication of Visiblelight Active doped TiO<sub>2</sub>nanoparticles: Application to Photocatalysis for Enhanced H<sub>2</sub> generation, Dye degradation & Detoxification of Cr (VI)' at National Conference On "Current Advances in Chemical Sciences" (NCCACS –2018) held at Department of Chemistry, University College of Science, Tumkur University, Tumakuru on 13-03-2018 (Oral presentation)

59. Harsh Bengani, Sudhir H. Ranganath and **G. Nagaraju**, Chemical based portable oxygen generator, 'The annual Chemical Engg. Symposium at Dept. of Chemcial Engg, IIT Guwahati, Assam, on 16<sup>th</sup>-18<sup>th</sup> March 2018.

58. <u>T. Jayalakshmi</u>, Brij Kishore, and **G. Nagaraju**, High cycling stability of core shell structured  $Mo_4V_6O_{25}$  nanorods for rechargeable lithium ion batteries, at DAE BRNS sponsored conference on 'Electrochemistry in advanced materials, corrosion and radiopharmaceuticals' held at BARC, Feb. 15-17, 2018.

57. <u>K. Lingaraju</u>, H. Rajanaika, H. Nagabhushana, R.B. Basavaraj, M. Raghavendra and **G. Nagaraju**, 'Green synthesis of reduced graphene oxide using aqueous leaves extract of euphorbia heterophylla' at Second National Conference on' Biotechnological Solutions for Sustainable Environmental Management' held at Dept. of studies and

research in Environmental Science, Tumakuru University, Tumakuru on 15<sup>th</sup> Feb. 2018.

56. <u>J. Puneetha,</u> Sunitha B. Patil, K. Nagaraju, **G. Nagaraju** and A. Rathna, 'Synthesis of  $TiO_2$  by Co-precipitation method for the degradation of Tryphan blue and Methyl orange' at Second National Conference on 'Biotechnological Solutions for Sustainable Environmental Management' held at Dept. of studies and research in Environmental Science, Tumakuru University, Tumakuru on 15<sup>th</sup> Feb. **2018**.

55. <u>Harish Phattepur</u>, B.S. Gowrishankar and **G. Nagaraju**, 'Fabrication of TiO<sub>2</sub> thin films by sol-gel spin coating method for the degradation of phenol', at Second National Conference on 'Biotechnological Solutions for Sustainable Environmental Management' held at Dept. of studies and research in Environmental Science, Tumakuru University, Tumakuru on 15<sup>th</sup> Feb. **2018**.

54. <u>Sunitha B. Patil</u>, **G. Nagaraju** and H.S. Bhojya Naik, 'Synthesis of Cu substituted nickel ferrite nanoparticles for the degradation of organic dye', at Second National Conference on 'Biotechnological Solutions for Sustainable Environmental Management' held at Dept. of studies and research in Environmental Science, Tumakuru University, Tumakuru on 15<sup>th</sup> Feb. **2018**.

53. <u>Shivaraj B. Patil</u>, **G. Nagaraju** and V. Udayakumar, 'Synthesis and characterization of  $\gamma$ -MnS nanoparticles', at Second National Conference on 'Biotechnological Solutions for Sustainable Environmental Management' held at Dept. of studies and research in Environmental Science, Tumakuru University, Tumakuru on 15<sup>th</sup> Feb. **2018.** 

52. J. Thanuja, H. Rajanaika and G. Nagaraju, Biosynthesis of  $Cu_4O_3$  nanoparticles using kidney bean seeds: Applications to cytotaxicity and antibacterial activites', 'Biotechnological Solutions for Sustainable Environmental Management' held at Dept. of studies and research in Environmental Science, Tumakuru University, Tumakuru on  $15^{\text{th}}$  Feb. 2018.

51. <u>M. Madhukara Naik</u>, H.S. Bhojya Naik, **G. Nagaraju**, 'Nickel doped cobalt ferrite nanoparticles: Efficient catalysts fordegradation of toxic dyes', at 'Recent Advances in Chemical Biology and Material Science for Industry and Society (RACBMS -18)' held at Dept. of Industrial Chemistry, Kuvempu University, Shivamogga, on 9-10, Feb. **2018**.

50. <u>S. B. Patil</u>, H. S. Bhojya Naik, **G. Nagaraju**, 'Synthesis of Terbium ( $Tb^{3+}$ ) substituted NiFe<sub>2</sub>O<sub>4</sub> nanoparticles and its photocatalytic application', at 'Recent Advances in

Chemical Biology and Material Science for Industry and Society (RACBMS -18)' held at Dept. of Industrial Chemistry, Kuvempu University, Shivamogga, on 9-10, Feb. **2018.** 

49. <u>Udayabhanu</u>, Brij Kishor, **G. Nagaraju**, 'Green Surfactant Assisted Ultrasound Mediated Synthesis Of  $TiO_2$  Nanoparticles: Electrode For Lithium-ion Battery', at 'Recent Advances in Chemical Biology and Material Science for Industry and Society (RACBMS -18)' held at Dept. of Industrial Chemistry, Kuvempu University, Shivamogga, on 9-10, Feb. **2018.** 

48. <u>Shivaraj B. Patil</u>,G. Nagaraju and V. Udayakumar, 'Facile Controlled Synthesis of MoO<sub>2</sub> Nanoparticles: Anode for Lithium - Ion Battery', at 'Recent Advances in Chemical Biology and Material Science for Industry and Society (RACBMS -18)' held at Dept. of Industrial Chemistry, Kuvempu University, Shivamogga, on 9-10, Feb. **2018.** (Best poster presentation award)

47. <u>N.S. Pavitra</u> and **G. Nagaraju**, 'Ionic liquid assisted hydrothermal synthesis of ZnWO<sub>4</sub> nanoparticles: Photocatalytic activity', at 'Recent Advances in Chemical Biology and Material Science for Industry and Society (RACBMS -18)' held at Dept. of Industrial Chemistry, Kuvempu University, Shivamogga, on 9-10, Feb. **2018.** 

46. <u>Udayabhanu</u>, M. V. Shankar, G. Nagaraju, 'Green synthesis of pure and doped  $TiO_2$  for sunlight activated H<sub>2</sub> production' presented in "10<sup>th</sup> annual conference of KSTA 2018" held at REVA University, Bengaluru on 18-19<sup>th</sup> January 2018. (Best poster award-consolation with Rs. 5,000.00 cash prize)

45. <u>M. Madhukara Naika</u>, **G. Nagaraju**, H.S. BhojyaNaika,'Photocatalytic activity of Al<sup>3+</sup> doped Nickel ferrite nanoparticles: Synthesis via sol-gel method' presented a poster in "10<sup>th</sup> annual conference of KSTA 2018" held at REVA University, Bengaluru on 18-19<sup>th</sup> January **2018**.

44. *Sunitha B. Patil*, H.S. Bojanaik and G. Nagaraju, Sugarcane juice assisted eco-friendly synthesis of CdFe<sub>2</sub>O<sub>4</sub> nanoparticles: Application to Photocatalytic activity, Bangalore NANO, Hotel Ashok, Bangalore, Dec. 7-8, **2017**.

43. *Udayabhanu*, N. Lakshmana Reddy, M. V. Shankar, H. Nagabhushana, D. Suresh, H. Rajanaika, S. C. Sharma, G. Nagaraju, 'Comparison of  $H_2$  generation by pure and Cu doped TiO<sub>2</sub> nanoparticles', at National conference on 'Trends in Advanced Materials and their Applications' (TAMA-2017) on 30<sup>th</sup> Nov. **2017**, held at Dept. of Physics, Tumkur University, Tumkur (**Best oral presentation award**)

42. <u>Sunitha B. Patil</u>, G. Nagaraju, H. S. Bhojya Naik, 'Photocatalytic activity of Gadolinium substituted Nickel ferrite nanoparticles', at National conference on 'Trends in Advanced Materials and their Applications' (TAMA-2017) on 30<sup>th</sup> Nov. **2017**, held at Dept. of Physics, Tumkur University, Tumkur (**Best poster presentation award**)

41. <u>T. Jayalakshmi</u> and G. Nagaraju, 'Synthesis and Characterization of  $CeO_2$ Nanoparticles: Application to Photocatalytic Activity and Photoluminescence' at National conference on 'Trends in Advanced Materials and their Applications' (TAMA-2017) on  $30^{th}$  Nov. **2017**, held at Dept. of Physics, Tumkur University, Tumkur

40. N. S. Pavithra and G. Nagaraju, 'Photocatalytic activity of combustion derived CuO nanoparticles' at National conference on 'Trends in Advanced Materials and their Applications' (TAMA-2017) on 30<sup>th</sup> Nov. **2017**, held at Dept. of Physics, Tumkur University, Tumkur.

39. K.N. Manukumar and **G. Nagaraju**, 'Hydrothermal synthesis of  $CeO_2$ -TiO<sub>2</sub> hybrid nanoparticles for visible light active photocatalysis', at National Conference on 'Recent trends in materials science and Environmental issues' held at Dept. of Chemistry and Physics, SJBIT, Bangalore on 10-05-2017.

38. T. Jayalakshmi, **Dr. G. Nagaraju**, 'Template Free Synthesis of Doped(Ag, Pt) Bismuth Vanadate Nanoparticles and Their Photocatalytic Activity' at UGC sponsored two day National Conference on 'Recent Advancement in nano-Science and Technology (RANST-2017) held at Dept. of Chemistry, Govt. Science College, Chitradurga on 21-22, April **2017. (Best Oral Presentation award).** 

37. S.B. Patil, H.S. BhojyaNaik, **G. Nagaraju**, Green synthesis of  $ZnFe_2O_4$  nanoparticles: Photocatalytic activity, at UGC sponsored two day National Conference on 'Recent Advancement in nano-Science and Technology (RANST-2017) held at Dept. of Chemistry, Govt. Science College, Chitradurga on 21-22, April **2017**.

36. S.B. Patil, H.S. Bhojya Naik and **G. Nagaraju**, 'Photocatalytic degradation of dye using rare earth metal substituted ferrite nanoparticles and its characterization', at National Conference on Recent Advances in Industrial Engineering and Applied Chemistry held at Dept. of Chemistry and Dept. of IEM, Siddhartha Institute of Technology, Tumakuru on 21-22, Oct. **2016 (Best Oral Presentation award).** 

35. N. Srikanth, K.N. Manukumar, G. Nagaraju and C. Madhu, 'Solution combustion synthesis of  $ZnFe_2O_4$  for photocatalytic application' at National Conference on Recent

Advances in Industrial Engineering and Applied Chemistry held at Dept. of Chemistry and Dept. of IEM, Siddartha Institute of Technology, Tumakuru on 21-22, Oct. **2016.** 

34. N Sreedevi, N. Srikanth, C. Madhu, G. Nagaraju, 'Photocatalytic activity  $ZnFe_2O_4$  nanomaterials via self-assisted solution combustion method', at National Conference on Recent Advances in Industrial Engineering and Applied Chemistry held at Dept. of Chemistry and Dept. of IEM, Siddartha Institute of Technology, Tumakuru on 21-22, Oct. 2016.

**33 G. Nagaraju,** 'Vanadium oxide based nanorings for lithium battery applications' at National Conference on Recent Advances in Industrial Engineering and Applied Chemistry held at Dept. of Chemistry and Dept. of IEM, Siddhartha Institute of Technology, Tumakuru on 21-22, Oct. **2016**.

32. K.M. Bharathkumar, Udayabhanu, **G. Nagaraju**, K. Sunil kumar, 'Green synthesis of BiVO<sub>4</sub> nanoparticles for photocatalytic application', at National Conference on Recent Advances in Industrial Engineering and Applied Chemistry held at Dept. of Chemistry and Dept. of IEM, Siddartha Institute of Technology, Tumakuru on 21-22, Oct. **2016**.

31. Shivaraj B. Patil and **G. Nagaraju**, 'Effect of oxygen on the combustion of ammonium molybdate', at National Conference on 'Recent Advances in Materials Science & its Applications (RAMSA-16)' held at School of Engineering and Technology, Jain Global Campus, Jakkasandra, Kanakapura Tq. on 24<sup>th</sup> September **2016** 

30. R .Thara, Lohitesh Jaga Kumar, G. Nagaraju, G.S. Shivashankar, 'Synthesis and characterization of MgO nanoparticles: Effect of MgO nanoparticles on the mechanical properties of Aluminum alloy LM6', National Conference On Recent Trends in Mechanical Engineering NCRTME – 2016, held at Department of Mechanical Engineering, JNTUH, Hyderabad on 28 – 29 April 2016. (Oral presentation)

29. Danith kumar, Chikkahanumantharayappa, H. Raja Naika, H. Nagabhushan, S.C. Sharma and **G. Nagaraju**, 'Photoluminescence and antibacterial studies of ZnO nanoparticles via solution combustion synthesis', National conference on ' recent advances in applied chemistry (RAAC-2015) held at 17<sup>th</sup> Dec. **2015** at Dayananda Sagar University, Bangalore. (**Best oral presentation award**)

28. J.K. Lohitesh, R .Thara, G. Nagaraju, 'Effect of ZnO nanoparticles on the Mechanical Properties of LM6', at Nationl Conference on Emerging Trends in Nano applications, BMS Institute of Technology, Bangalore, March 27-28, 2015

27. K. Manjunath, E. Archana, K. Nagaraju, J. Dupont, Uday Kumar, G. Nagaraju, 'Ionic Liquid Intercalated  $V_2O_5$  Nanorods: Synthesis and Characterization', held at 7<sup>th</sup> Annual KSTA conference on Science, Technology and Productization Feb. 5-6, 2015. Oxford College of Science, Bangalore.

26. L.S. Reddy Yadav, K. Lingaraju, Basavaraju, Daruka Prasad, C. Kavitha, G.E. Rudreshappa and **G. Nagaraju**, 'Synthesis of  $CeO_2$  nanoparticles: Photocatalytic and antibacterial activities', held at 7<sup>th</sup> Annual KSTA conference on Science, Technology and Productization Feb. 5-6, **2015.** Oxford College of Science, Bangalore

25. **G. Nagaraju,** National Conference on 'Application of nanotechnology in environmental remediation, at Dept. of Studies and Research in environmental science, Tumakuru University, Tumakuru on 7-10-**2015** 

24. K. Manjunath, L. S. Reddy Yadav, J. Dupont and **G. Nagaraju**, 'Ionothermal synthesis of TiO<sub>2</sub> nanoparticles: Efficient hydrogen production and antibacterial activity' Electrochemical Concepts; Materials for Energy Storage and Sensing (ECMESS-2015) held at Dept. of Chemistry, St. Joseph College, Bangalore during Feb12-13, **2015**.

23. Danith Kumar, L.S. Reddy Yadav, K. Lingaraju, K. Manjunath, D. Suresh, Daruka Prasad, H. Nagabhushana, S.C. Sharma, H. Raja Naika, Chikkahanumantharayappa and **G. Nagaraju**, 'Combustion Synthesis of MgO Nanoparticles Using Plant Extract: Structural Characterization and Photoluminescence Studies', 59th DAE Solid State Physics Symposium, 16-20, Dec. 2014, AIP Conf. Proc. 1665, 010001 (2015); <u>http://dx.doi.org</u> /10.1063/1.4917570

22. Raja Naika H, Manjunatha N, Vijay K, Ravishankar T.N, Shilppa C.J, Suresh D, Nagabhushana H, **Nagaraju G**, Sharma S.C. (**2013**) Synthesis and Photocatalytic activity of MgO nanoparticles, Proceeding of National conference on *"Nano Science and Nano Technology"* on 11<sup>th</sup> October 2013. **ISBN: 978-81-928203-2-3**, Page No. 55-57.

21. Raja Naika H, Lingaraju K, Udaybanu, Suresh D, Krishna V, Nagabhushana H, **Nagaraju G (2014)** *Accacia concinna* fruit extract mediated synthesis of ZnO nanoparticles and its Biological importance, Proceeding of National Conference on

"Biotechnology for Human welfare" on 27<sup>th</sup> September **2014.** ISBN: 978-93-82694-16-8, Page No.31-39.

20. L. S. Reddy Yadav, K. Manjunath, K. Lingaraju, H. Raja Naik, C. Kavitha, G. Nagaraju, 'Ionic liquid assisted hydrothermal synthesis of TiO<sub>2</sub> nanoparticles: photocatalytic and antibacterial activity' UGC sponsored two days National conference on Advanced Nanotechnology and Its Applications"(NCOANA) on 22-23, January 2015 at Maharani's Science College for women, Palace Road, Bangalore. (Oral presentation)

19. N. Suresh, S. Venkateswaran, **G. Nagaraju**, S. Seetharamu, 'Influence of fly ash reinforcement on the mechanical properties of Al-Si alloy based composites', National Conference, Trends In Mechanical Engineering, Jan 16-17 2014 under TEQIP-II, P P64-71

18. Danith Kumar, C.J. Shilpa, Lingaraju, K.M. Manjunath, D. Suresh, Daruka Prasad, H. Nagabhushan, Raja Naika and **G. Nagaraju**, 'Green Synthesis and characterization of MgO nanoparticles', *International Conference on Nanobio, Biomimetic Materials and its applications' (ICNBM- 2014)*, Hindustan College of Arts & Science, Coimbatore, 27-28, February 2014 (**Oral Presentation**)

17. Nagabhushan, Danith Kumar, Lingaraju, Raja Naika, K.M. Manjunatha, Dhananjaya, H. Nagabhushana, B.E. Ramachndran, G. Nagaraju, 'Antibacterial properties of ZnO nanoparticles synthesized from self-propagating solution combustion method'. National Conference on frontier in applied spectroscopy, NCOFIAS-2014, 13-14, January 2014, Department of Chemistry, Maharani's Science College for Women, Bangalore

16. Lakshmi Sagar Reddy, Dhankith Kumar, Lingaraju, Alamelu K Ramasami, G.A. Swetha, B. Daruka Prasad, H. Nagabhushana, Raja Naika, **G. Nagaraju**, Combustion Synthesis of Characterization of ZnO Nanoparticles: Microbial activity, National Conference on frontier in applied spectroscopy, NCOFIAS-2014, 13-14, January 2014, Department of Chemistry, Maharani's Science College for Women, Bangalore

15. Dhankith Kumar, Lakshmi Sagar Reddy, Lingaraju, T.N. Ravishankar, Daruka Prasad, Sudheer Kumar, H. Nagabhushan, Raja Naika, **G. Nagaraju**, 'Green Synthesis of ZnO nanoparticles and its photocatalytic/microbial activity', National Conference on frontier in applied spectroscopy, NCOFIAS-2014, 13-14, January 2014, Department of Chemistry, Maharani's Science College for Women, Bangalore

14. D.L. Narasimha Murthy, Nagabhushan, Lingaraju, K. Manjunath, T. Ramakrishnappa, Dhankith Kumar , H. Nagabhushan, Bincy Rose, Raja Naika, Jairton Dupont and **G. Nagaraju**, Ionic liquids assisted hydrothermal synthesis of palladium nanoparticles' National Conference on frontier in applied spectroscopy, NCOFIAS-2014, 13-14, January 2014, Department of Chemistry, Maharani's Science College for Women, Bangalore. (**Best poster presentation award**)

13. T.N. Ravishankar, K. R. Alamelu, K. Manjunath, C.J. Shilpa, D. Suresh, Rajanaik, H. Nagabhushan, J. Dupont and **G. Nagaraju.** 'Ionothermal synthesis and photocatalytic activity of  $TiO_2$  nanoparticles'. National conference on nanoscience and nanotechnology, BMS Institute of Technology, Bangalore, Oct 11<sup>th</sup>, 2013.

12. K. Manjunath, T.N. Ravishankar, T.R. Ramakrishnappa, R. Geetha Balakrishna, H. Nagabhushan, J. Dupont and **G. Nagaraju.** 'Photocatalytic activity of  $TiO_2$  nanoparticles: Synthesis using functionalized ionic liquids'. National conference on nanoscience and nanotechnology, BMS Institute of Technology, Bangalore, Oct 11<sup>th</sup>, 2013.

11. T.N. Ravishankar, K.Manjunath, K.R.Alamelu, T.R. Ramakrishnappa, H.Nagabuhshana, D. Suresh, Raja Naik and **G. Nagaraju.** 'Synthesis of  $TiO_2$  nanoparticles using functionalized ionic liquids: Photocatalytic activity'. National conference on Frontiers and Challenges in Chemsitry (FCC-2013) to be held at Don Bosco Institute of Technology, Bangalore at 10-11<sup>th</sup>, 2013. (**Oral Presentation**).

10. K. Manjunath, N. Ravishankar, K.R. Alamelu, R. Geetha Balakrishna, H. Nagabhushana, D. Suresh, Raja Naik and **G. Nagaraju**, 'Low temperature synthesis and photocatalytic activity of  $TiO_2$  nanoparticles using functionalized ionic liquid'. National conference on Frontiers and Challenges in Chemsitry (FCC-2013) to be held at Don Bosco Institute of Technology, Bangalore at 10-11<sup>th</sup>, 2013. (**Oral Presentation**)

9. T.N. Ravishankar, K. Manjunath, Alamelu K. Ramasami, B.S. Ravikumar, H. Nagabhushana, D. Suresh, J.Dupont, **G. Nagaraju.** 'Enhancement of photocatalytic activity of lithium doped titanium dioxide (Li:TiO<sub>2</sub>) nanoparticles via ionic liquid assisted hydrothermal method. National conf. on 'Frontiers and Challenges in Biological Organometalli Compounds' MS Ramaiah Institute of Technology, Bangalore, June 20-21, **2013.** 

8. **G. Nagaraju,** K. Manjunath, S. Sujoy, J. Dupont and S. Sampath. ' $Na_{0.3}V_2O_5$ 1.5H<sub>2</sub>O/RGO composite via hydrothermal method: Lithium storage behavior'. 21<sup>st</sup> National Symposium on Catalysis, IICT, Hyderabad, (CATSYMP21) Feb 10-13, **2013.** (**Oral Presentation**)

7. B. Umesh, B. Eraiah, H. Nagabhushaa, B.M. Nahabhushana, Chikkahanumantha rayappa, **G. Nagaraju**, C. Shivakumar, R.P.S. Chakradhar. 'Preparation and characterization of rod like Nd<sub>2</sub>O<sub>3</sub> nanosphosphor through hydrothermal route, 'National Seminar on Display Phosphor and its Applications (NSDPA-2009)' Dept. of Physics, Vivekananda First grade College, Bangalore. Oct 22-23, **2009** 

6. **G. Nagaraju** and G.T. Chandrappa, 'Organic assisted hydrothermal synthesis of  $MoO_2$  microspheres',  $52^{nd}$  Solid State Physics Symposium, Dept. of Studies in Physics, University of Mysore, Dec. 27-31, **2007.** 

5. **G. Nagaraju,** B.M. Nagabhushana, B. Nagappa and G.T. Chandrappa, 'Synthesis, characterization and applications of hydrothermal and combustion derived nanomaterials', National Review and Coordination Meeting on 'Nanoscinece and Nanotechnology: International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), Hyderabad, Feb. 21-23, **2007.** 

4. **G. Nagaraju** and G.T. Chandrappa, 'Synthesis and characterization of silver molybdate nanorods/multipods', National Review and Coordination Meeting on 'Nanoscinece and Nanotechnology: International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), Hyderabad, Feb. 21-23, **2007. (Oral Presentation)** 

3. **G. Nagaraju** and G.T. Chandrappa, 'Hydrothermal synthesis of MoS<sub>2</sub> nanofiber bundles', National Symposium on the role of Analytical Instruments and Applications of Materials (AICQOM-2007), Bangalore, Jan. 27- 28, **2007**.

2. **G. Nagaraju** and G.T. Chandrappa, 'Organic free hydrothermal synthesis ZnO nanowires', National Conference on Chemistry (NCC-CCB 2006): Dept. of Chemistry, Bangalore University, Bangalore, Sept. 27-29, **2006**.

1. **G. Nagaraju** and G.T. Chandrappa, 'Photoluminescence properties of surfactant free hydrothermally derived ZnO nanorods', National Conference on Advanced Characterization Techniques on Nanomaterials (ACTON-2005): Indian Institute of Technology, Roorkee, Aug. 24-26, **2005**.

### Participation in workshop/symposium

8. Two days workshop on 'Basic Rietveld Refinement Analysis, during 24-24, March 2017 organized by Dept. of Physics, SIT, Tumakuru.

7. Workshop on 'Next generation energy materials: Challenges and opportunities' during 16-17, March 2017 at Dept. of Physics/Chemistry, Dayananda Sagar University, Bangalore
6. Workshop on 'Thin film XRD analysis' conducted by Rigaku Corporation, at IISC, Bangalore on 15-11-2016

5. Science Academic Lecture Workshop on 'Recent Advances in Electrochemistry' in association with Indian Academy of Sciences held at Dept. of Chemistry, NMKRV College, Bangalore on 28-29<sup>th</sup> Oct. 2015.

4. National Workshop on 'Nanomaterials and Microsystems (NWNM-2014' held at Nitte Meenakshi Institute of Technology, Bangalore, from July 14-18, 2014

3. RSC Road Show held at Solid State and Structural Chemistry Unit, Indian Institute of Science, Bangalore, dated 7<sup>th</sup> Feb 2013.

2. Chemistry of Nanomaterials at SJRC college of Sciecne, Arts and Commerce,

Bangalore dated 28<sup>th</sup> Feb, 2006

1. National Workshop on Catalysis, Bangalore Institute of Technology (BIT), Bangalore, Feb. 8-10, **2007**.

### **Conference/Workshop organizer**

2. Organized two day workshop on 'Characterization Techniques for Nanomaterials and Lithium-Ion Battery' as Convener at March 10-11, 2017, Dept. of Chemistry, SIT, Tumakuru.

 Actively involved as one of the member to conduct one day National Conference on Nanoscience and Nanotechnology at BMS Institute of Technology, Bangalore, Oct 11<sup>th</sup>, 2013.

### Short term training programme

**1.** As a co-ordinator, conducted Short term training programme on 'Concepts of Nano and its characterization methods' in collaboration with Dept. of Chemical Engineering from 06-15, Feb. 2018 at 5.30 pm to 7.00 pm

#### Academic oriented workshop/programme

7. In-house Faculty Development programme Workshop series -43 on 'Novel materials for Engineering and Environmental applications' from 21-26<sup>th</sup>, April 2018 at SIT, Tumkur.

6. In-house Faculty Development programme Workshop series -42 on "Characterization techniques for the study of Thermo- Electric and Optical properties of Materials" during 23 -28<sup>th</sup> July, 2017 at SIT, Tumkur.

5. In-house Faculty Development programme Workshop series -41 on 'Synthesis, Characterization of Nanomaterials and Their Engineering Applications' at SIT, Tumkur on 14-19<sup>th</sup> July 2016

4. In-house Faculty Development programme Workshop series - 40 on 'Synthesis, Characterization , Electrical, Magnetic properties and applications of nanomaterials Materials for Future Technology', at SIT, Tumkur on 23-28<sup>th</sup> Nov. 2015

3. Two days workshop on 'Outcome based Education' held at Aug. 2-3, 2015, BMSCE, Bangalore

2. Three days Engineering Faculty Workshop 'MISSION – 10X' on 28-30<sup>th</sup>, July 2015 at Siddaganga Institute of Technology, Tumakuru.

1. In-house Faculty Development programme Workshop series -39 on ' Materials for Future Technology', at SIT, Tumkur on 17-19<sup>th</sup> July 2015

#### Awards

(v) Awarded as Faculty Visiting Fellow (Ten in one across India) to work under the Supervision of Prof. Eswaramurthy, JNCASR, Bangalore during the year 2016-17

(iv) Awarded as 'Young Scientist Fellow' from the Vision Group of Science and Technology, Govt. of Karnataka (2016).

(iii) Awarded as 'Young Scientist Fellow' from the Dept. of Science and Technology, Govt. of India, New Delhi (2013).

(ii) Awarded as CNPq-TWAS International Postdoctoral Fellow to work under the supervision of Prof. Jairotn Dupont, Laboratory of Molecular Catalysis, UFRGS, Porto Alegre, Brazil, during 2011-12

(i) 1998 National merit scholarship awarded by UGC, Govt. of India

	As a sponsored project review committee member						
No	Project title		Faculty details	Funding agency and amount			
1	Magnetically recoverable a	and	Dr. Aatika Nizam	Center for Research Projects			
	reusable nanocatalysts	for	Asst. Professor,	Christ University,			
organic synthesis		Dept. of Chemistry,	Bangalore				
		Christ University,					
			Bangalore				

### As a Ph.D. thesis review member

	As a Ph.D. thesis review member							
No	Thesis title	Research scholar	Supervisor					
1	Synthesis and	Jijoy P. Mathew	Dr. George Varghese,					
	characterization of		Director, KSCSTE,					
	transparent conductive	MG University,	Thiruvanathapuram					
	doped ZnO thin films	Kottayam, Kerala	and					
			Dr. Jacob Mathewe					
			Dept. of Physics, St.					
			Berchmans College,					
			Changanassery					

Nominated as a Member of Board of Studies (BoS) for Ph.D. at Dept. of Chemistry, Reva University, Bangalore on 16-03-2018

### Achievements

(ix) One of our articles entitled 'A novel mesoporous foam  $TiO_2$  nanomaterials for effective hydrogen production', *Chemistry- A European Journal*, (21 (2015) 17624) appeared in cover page.

(iix) One of my Ph.D. students Mr. T.N. Ravishankar was selected for CNPq-TWAS sandwich fellowship under the guidance of Prof. Sergio Ribeiro Teixeira and Prof. Jairton Dupont, UFRGS, Porto Alegre, Brazil.

Title: Ionothermal synthesis of doped  ${\rm TiO}_2$  nanomaterials for enhanced photocatalytic  ${\rm H}_2$  evolution

(vii) One of our articles entitled 'Facile combustion synthesis of ZnO nanoparticles using Cajanus cajan (L.) and its multidisciplinary applications' has been written-up as a news item in Nature Publishing Group-Asia Materials, (Nature India)

Materials Research Bulletin 57 (2014) 325-334

http://www.natureasia.com/en/nindia/article/10.1038/nindia.2014.108

(vi) One of my Ph.D. students Mr. K. Manjunath was selected for CNPq-TWAS sandwich fellowship under the guidance of Prof. Jairton Dupont, Institute of Chemistry, UFRGS, Porto Alegre, Brazil.

Title: Ionothermal synthesis of doped metal oxides and its reduced graphene oxide composites for enhanced H<sub>2</sub> evolution

(v) One of our articles 'Synthesis of Rhodium Oxide nanoparticles by Ionic liquidassisted Hydrothermal method' was selected for Sixth Science Conclave - A Congregation of Nobel Laureates and Eminent Scientists, IIIT- Allahabad, Uttar Pradesh, India from 8<sup>th</sup> -14<sup>th</sup> December 2013.

(iv) S. Ashoka, G. Nagaraju and G.T. Chandrappa, 'Single-crystal cadmium carbonate nanoribbons and nanorings synthesis via hydrothermal method' (Mater. Research Bull. 45 (2010) 1736) appeared in Cover Page.

(iii) G. Nagaraju, S. Ashoka, C.N. Tharamani and G.T. Chandrappa, 'Surfactant free hydrothermal synthesis of ZnO nanowires, nanorods and microrods', Materials science in semiconducting processing 13 (2010) 21 (Appeared in 5th place of top 25 hottest articles).

(ii) 2006 Selected for SRF under DST

(i) 2004 Selected for JRF under DST

# List of equipments available for collaboration research work

No.	List of Equipments	Funding agency
1	X-Ray diffraction	DST-Nanomission
2	Spectroflorimeter	DST-Nanomission
3	UV-Visible Spectrophotometer	DST-Nanomission
4	HPLC	DST-Nanomission
5	Battery testing unit	DST-SERB
6	FTIR spectrometer	SIT, Tumakuru
7	Electrochemical work station (CH instruments)	SIT, Tumakuru
8	Atomic Absorption Spectrometer	TEQIP grant, SIT, Tumakuru
9	Rotavapour	ISRO-RESPOND
10	Muffle furnace	BRNS, BARC
11	Tubular furnace	BRNS, BARC
12	Hot air oven-03 Nos.	BRNS- BARC, ISRO-RESPOND
13	Hydrothermal bombs-Autoclaves	BRNS-BARC, ISRO-RESPOND
14	Gas Cylinder (N <sub>2</sub> , Ar, NH <sub>3</sub> )	BRNS, BARC
15	Centrifugation Unit	ISRO-RESPOND
16	Water Distillation unit	DST-Nanomission
17	Sonicator	DST-Nanomission
18	Refrigerator	ISRO-RESPOND
19	Fume hood	SIT, Tumakuru
20	UV hood/chamber for photo catalysis	SIT, Tumakuru
21	Vacuum pump	BRNS- BARC, ISRO-RESPOND
22	UV and Visible source Photoreactor,	VGST-SMYSR
23	Electronic balance	VGST-SMYSR
24	Vacuum Oven	VGST-SMYSR
25	Computer – 4 Nos. (Printer-2 nos)	ISRO, BRNS, DST, VGST
26	Microwave oven	VGST-SMYSR
27	pH meter	VGST-SMYSR

**Vertical News:** Vertical news is highlighted our research work carried out at Bangalore University.

1. New materials science study findings have been reported by researchers at Bangalore University

http://www.verticalnews.com/article.php?articleID=969727

2. Study findings on materials science are outlined in reports from Bangalore University <u>http://www.verticalnews.com/article.php?articleID=1382762</u>

3. Findings from Bangalore University Provide New Insights into Nanobelts <u>http://www.verticalnews.com/article.php?articleID=8491252</u>

### Recognized as a Reviewer to reputed International Journals

- 1. New Journal of Chemistry
- 2. RSC Advance
- 3. Applied Catalysis B: Environmental
- 4 J. Materials Science and Semiconductor Processing
- 5. J. Molecular Catalysis
- 6. J. Current Nanoscience Science of Advanced Materials
- 7. J. Alloys and Compounds
- 8. British Journal of Applied Science & Technology
- 9. Materials Science and Engineering B
- 10. International Research Journal of Pure and Applied Chemistry
- 11. BioMed Research International
- 12. Nanotechnology
- 13. Chemistry Central Journal
- 14. Bulletin of Materials Science
- 15. Journal of Inorganic Materials
- 16. International Journal of Hydrogen Energy
- 17. Materials Research Express

Collaboration						
	Intern	ational				
Prof. Jairton Dupont, FRSC.	ESPSRC/GSK Professor in Sustainable Chemistry School of Chemistry University of Nottingham, UK.	Prof. Sergio R. Teixeira	Laboratory of Thin Films and Nanostructure Fabrication (L3Fnano), Institute of Physics, UFRGS, Porto Alegre, Brazil			
Dr. Ulf-Peter	Inorganic/Bioinorganic Chemistry, Ruhr- University, Bochum, Germany	Dr. Jackson Damiani Scholten	Institute of Chemistry, UFRGS, Porto Alegre, RS, Brazil			
Dr. Asad Syed	Assistant Professor Department of Botany and Microbiology College of Science, King Saud University Riyadh, Saudi Arabia	Prof. Chun Cheng.	Department of Materials Science and Technology, Southern University of Science and Technology, China			

National					
Prof. Sampath	Department of Inorganic and Physical Chemistry Indian Institute of Science Bangalore	Prof. Munichandraiah	Department of Inorganic and Physical Chemistry IISC, Bangalore		
Prof. M. Eswaramoorthy	Chemistry and Physics of Materials Unit, Jawaharlal Nehru Center for Advanced Scientific Research, Bangalore	Dr. C.M. Nagaraju	Assistant professor, Department of Chemistry, IIT-Ropar, Punjab, India		
Prof. Dinesh Rangappa	Center for Nanotechnology, Center for Post Graduate studies, VTU, Muddenhalli, Bangalore Regional Centre	Dr. M.V. Shankar	Associate Professor Dept. of Materials Science & Nanotechnology Yogi Vemana University, Kadapa, AP		
Prof. H.S. Bhojya Naik	Department of Studies and Research in Industrial Chemistry, Kuvempu University, Shivamogga	D. H. Nagabhushan	Assoc. Professor Dept. of Physics, Tumkur University, Tumkur		
Dr. K. Nagaraju	Assoc. Professor Dept. of Chemistry, MSRIT, Bangalore.	Dr. D. Suresh	Asst. Professor Dept. of Chemistry, Tumkur University, Tumkur		
Dr. H. Rajanaik	Asst. Professor Dept. of Env. Science. Tumkur University, Tumkur	Dr. S. Ashok	Asst. Professor Dept. of Chemistry, Dayananda Sagara University, Bangalore		
Dr. Govindappa	Assoc. Professor, Dept. of Biotechnology, Dayananda Sagar College of Engg. Bangalore.	Dr. Chandrappa	Professor, Dept. of Biotechnology Sridevei Institute of Engineering and Technology Tumakuru		
Dr. Nirmala	Asst. Professor Dept. of Chemistry, Tumkur University, Tumkur	Dr. Ananda Kumari	Professor Dept. of Physics, Siddaganga College of Womens, Tumakuru.		

As a Committee member for the evaluation of progress of Ph.D student		
No	Research Scholar	Research Supervisor
1	Yogesh Kumar	Dr. H.B. Muralidhar Asst. Professor Center for Emerging Technologies, Jain University, Jakkasandra, Kanakapura Ta
2	Mohan Reddy	Dr. Praveen Professor, Srinivasa School of Engineering, Mangalore - 575 001
3	Soniya Somasundaram	Dr. P. Murali krishna Asst. Professor in Chemistry M. S. R.I.T. Bangalore 560 054
4	Ms. Tejaswini L	Dr. S. Ashok Asst. Professor Dept. of Chemistry, Dayananda Sagara University, Bangalore
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# Academic Experience

5	Worked as Ad. hoc lecturer (M.Sc. – Physical Chemistry) (2006-2009)	Ganga Kaveri Institute of Science and Management, Rajaji Nagar, Bangalore.
4	Worked as Ad.hoc lecturer (Master of Science-Chemistry) (2006-2008)	Distance Education (MK University, TN) Fulinfaws College, Hulimavu, Bhannerugatta road, Bangalore.
3	Worked as Ad. hoc lecturer (Eng. Chemistry) (2005-2007)	Department of Chemistry, University of Vishweswaraiah College of Engineering, (UVCE), Bangalore.
2	Worked as Ad.hoc lecturer (2002-2003)	M.S. Ramaiah First Grade College, Mattikere, Bangalore.
1	Worked as Ad. hoc lecturer(2000-2001& 2003-2004)	Sheshadripuram Pre University College Sheshadripuram, Bangalore.

I hereby declare that the above-mentioned information's are true to the best of my knowledge.

Place:	
Date:	

Signature

(Nagaraju. G)