

## BIO - DATA



**Dr. M. SUNDRARAJAN**  
**Assistant Professor**

## PERSONAL INFORMATION

<b>Name</b>	<b>Dr. M. SUNDRARAJAN</b>		
<b>Address (Present)</b>	1/259, Padmagiri Illam Thiruvalluvar Nagar, Illuppakudi Panchayat, Near Ponnagar, Karaikudi – 630 202. Sivaganga (Dt), Tamil Nadu, India		
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<b>Date of Birth</b>	10.04.1970	<b>Place of Birth</b>	South Samudram
<b>Nationality</b>	Indian	<b>Gender</b>	Male

## WORK INFORMATION

<b>Affiliation</b>	Alagappa University		
<b>Faculty and Major</b>	Assistant Professor in Chemistry		
<b>Address</b>	Advanced Green Chemistry Lab Department of Industrial Chemistry School of Chemical Sciences Alagappa University Karaikudi – 630 003 Tamilnadu, India		
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## ACADEMIC QUALIFICATIONS

<b>Degree</b>	<b>Institution</b>	<b>Field</b>	<b>Year</b>
B.Sc	R.D.Govt.Arts College, Sivaganga	Chemistry	1991- 1994
M.Sc	Alagappa University, Karaikudi	Industrial Chemistry	1994- 1996
PGDCA	Alagappa University, Karaikudi	Computer Application	1998- 1999
Ph.D	Alagappa University, Karaikudi	Industrial Chemistry	1998- 2002
DNCC	APTECH Computer Education, Karaikudi	Network and computer	Jan.2002-Dec. 2002

## WORK EXPERIENCE

Particulars of work done	Institution	Duration
Technical Assistant	Dept. of Industrial Chemistry, Alagappa University, Karaikudi	01.08.1999- 29.11.2000
Research Associate	Anna University, CES, Chennai	28.01.2004- 03.06.2005
Assistant Professor	E.G.S. Pillai Engineering College, Nagapattinam	18.06.2005- 22.12.2007
Assistant Professor	M.R.Government College, Mannarkudi (Training)	26.12.2007- 22.01.2008
Assistant Professor	Department of Industrial Chemistry, Alagappa University, Karaikudi	23.01.2008 to till date

## DISTINCTIVE ACHIEVEMENTS / AWARDS

1. DST – FAST Track **Young Scientist Award** in year 2009.
2. The research paper entitled “Studies on the effect of Ionic liquid in synthesis of ZnO nanostructure using plant extract and their performance in antibacterial activity” has won the **Best Paper Award** in New opportunities and challenges in chemical research (NOCCR – 2014), A.V.V.M. Sri Pushpam College, Poondi, Thanjavur District.
3. The research paper entitled “Structural synthesis of fluorapatite nanocrystals using different imidazolium based ionic liquid: A green process” has won the **Best Paper Award** in National conference on Biomaterials in Medicinal Chemistry (2015), Madurai Kamaraj University, Madurai
4. **Alagappa Excellence Research Award** – 2016 given by AURF, Alagappa University, Karaikudi.

5. **Best Article Award** (2016) from Chinese Society of Metals for article entitled “Ionic Liquids Assisted Synthesis of ZnO Nanostructures: Controlled Size, Morphology and Antibacterial Properties”, Journal of Materials Science and Technology.
6. **Bharat Gaurav Award** (2017) from India International Friendship Society- New Delhi.
7. **Best Citizens of India Award** (2017) from Best Citizens of India- New Delhi.
8. **Appreciation Award for Patent published (2018)** from Alagappa University- Karaikudi.
9. **Appreciation Award for NAAC A+ Grade (2018)** from Alagappa University- Karaikudi
10. **Vallal Alagappan Research Recognition Award** (2020) from Alagappa University- Karaikudi.
11. **Quality Enhancement in Teaching and Research Award for RUSA 2.0 (2020)** from Alagappa University- Karaikudi.
12. **“International Research Award on New Science”** Under the category of Best Researcher Award from Science father (2021), Chennai.

## **PATENTS**

### **1. Granted: Korean Patent**

Inventors: Hong Sun Lg, J. Suresh, R. Yuvakumar, J. Nathanael, **M. Sundrarajan**

Patent Number: 10-1617994

Publication Date: 21/04/2016

### **2. Published: Indian Patent**

Inventors: **M. Sundrarajan**, Hong Sun Lg, J. Suresh, R. Yuvakumar, R. Rajiv Gandhi

Application Number: 3557/CHE/2014

Publication Date: 01/07/2016.

## **MY RESEARCH PROGRESS**

My research group focused on environmental conservation and protection by eco-friendly way and green approach to application of preventing pollution load, toxicity and hazardous from our living things. My Ph.D thesis is theme based on minimizing the risk and maximizing the efficiency of textile dyeing and processing. After completion of my Ph.D degree, I have worked in Centre for Environmental Studies (CES), Anna University, Chennai campus as a Research Associate for two years. I sustained my research based on ozonation processes used for purification and recycling of waste water from dye industries. I got many useful remedies for water pollution from dye industries founded on ozonation process. Now I am working as an assistant professor of chemistry in the Department of industrial chemistry, Alagappa University, Karaikudi. My research group is working on advanced green chemical processes. Designing conventional synthesis into green synthesis for circumvents pollution and hazardous to human health is doing. Hence, we have to working certain chemical processes with newer methods and also increasing the yields. We have to choose precursors from waste materials like fruits peel, plants and seed waste, etc., and also we have focused research about ionic liquids as a greener solvent, capping agent, etc., from the beginning of my research, I have focused only about environmental safety from dangerous chemical processes. Recently, our group research has focusing on synthesis of nanomaterials for the biomedical applications like tissue engineering, Antibacterial activity and wound healing.

## **LIST OF PAPER PUBLICATIONS IN JOURNALS**

1. A. Mayakrishnan, M. Balaji, P. Nithya, C. Dhilip kumar, R Gowri and **M. Sundrarajan**, (2021), Electrospinning cellulose acetate/ silk fibroin/ Au-Ag hybrid for enhanced biocidal activity against MCF-7 breast cancer cell, Material Science and Engineering C,- 123, 112019-112030. (*IF* – 5.88).
2. V. Muthulakshmi, P. Kumar, **M. Sundrarajan**, (2021), Green synthesis of Ionic liquid mediated Ytterbium oxide nanoparticles by *Andrographis Paniculata* leaves extract for structural, morphological and biomedical applications, Journal of Environmental Chemical Engineering – **Vo. 9**, 105270 – 105281. (*IF* – 4.3).
3. **M. Sundrarajan**, V. Muthulakshmi, (2021), Green synthesis of Ionic liquid mediated Neodymium oxide nanoparticles by *Andrographis paniculata* leaves extract for effective bio-medical applications, Journal of Environmental Chemical Engineering, Vol. 9[1], 104716 . (*IF* – 4.3).
4. P. Nithya, M. Balaji, A. Mayakrishnan, S. Jegatheeswaran, S. Selvam, and **M. Sundrarajan**, (2020), Biogenic approach for the synthesis of Ag-Au doped RuO<sub>2</sub> nanoparticles in BMIM-PF6 ionic liquid medium: Structural characterization and its biocidal activity against pathogenic bacteria and HeLa cancerous cells, Journal of Molecular Liquids, Vol. 310, 113245-113258. (*IF* – 5.06).
5. V. Muthulakshmi, **M. Sundrarajan**, (2020), Green synthesis of Ionic liquid assisted ytterbium oxide nanoparticles by *Couroupita guianensis abul* leaves extract for biological applications, Journal of Environmental Chemical Engineering, Vol. 8, 103992-104004. (*IF* – 4.3).
6. K. Kasinathan, M. Balaji, P. Nithya, **M. Sundrarajan**, S. Balamurugan and M. Karunakaran, (2020), Synthesis of biogenic chitosan-functionalized 2D layered MoS<sub>2</sub> hybrid nanocomposite and its performance in pharmaceutical applications: In-vitro antibacterial and

- anticancer activity, International Journal of Biological Macromolecules, Vol. 149, 1019-1033. (IF – 5.16).
7. M. Balaji, P. Nithya, A. Mayakrishnan, S. Jegatheeswaran, S. Selvam, Yurong Cai, Juming Yao and **M. Sundrarajan**, (2020), Fabrication of palladium nanoparticles anchored polypyrrole functionalized reduced graphene oxide nanocomposite for antibiofilm associated orthopedic tissue engineering, Applied Surface Science, Vol 510, 145403 – 145418. (IF – 5.1).
  8. V. Muthulakshmi, M. Balaji and **M. Sundrarajan**, (2020), Biomedical applications of ionic liquid mediated Samarium oxide nanoparticles by *Andrographis paniculata* leaves extract, Materials Chemistry and Physics, Vol 242, 122483 – 122491. (IF – 2.781).
  9. P. Nithya and **M. Sundrarajan**, (2020), Ionic liquid functionalized biogenic synthesis of Ag-Au bimetal doped CeO<sub>2</sub> nanoparticles from *Justicia adhatoda* for pharmaceutical applications: Antibacterial and anti-cancer activities, Journal of Photochemistry & Photobiology, B: Biology, Vol 202, 111706 – 111712. (IF - 4.067).
  10. V. Muthulakshmi, M. Balaji and **M. Sundrarajan** (2020), Ionic Liquid Mediated Morphologically Improved Lanthanum Oxide Nanoparticles by *Andrographis paniculata* Leaves Extract and Its Biomedical Applications, Journal of Rare Earths, Vol 38, 281-291 (IF - 2.846).
  11. P. Nithya, M. Balaji, A. Mayakrishnan, S. Jegatheeswaran, S. Selvam and **M. Sundrarajan**, (2019), Ionic liquid - A greener templating agent with *Justicia adhatoda* plant extract assisted green synthesis of morphologically improved Ag-Au/ZnO nanostructure and its antibacterial and anticancer activities, Journal of Photochemistry & Photobiology, B: Biology, Vol 198, 111559 – 111563. (IF - 4.067).
  12. M. Balaji, P. Nithya, A. Mayakrishnan, V. Muthulakshmi, S. Jegatheeswaran, J. Anandha Raj, S. Selvam, and **M. Sundrarajan**, (2019), Two dimensional graphene oxides converted

to three dimensional P, N, F and B, N, F tri-doped graphene by ionic liquid for efficient catalytic performance, Carbon, 151 (2019): 53-67. (IF - 7.46).

13. P. Nithya, M. Balaji, S. Jegatheeswaran, S. Selvam and **M. Sundrarajan**, (2019), [BMIM] PF<sub>6</sub> ionic liquid mediated green synthesis of ceramic SrO/CeO<sub>2</sub> nanostructure using Pedalium murex leaf extract and their antioxidant and antibacterial activities. Ceramics International, 1, 45(9), 12138-12148. (IF - 7.46).
14. M. Balaji, P. Nithya, S. Jegatheeswaran, S. Selvam, and **M. Sundrarajan**, (2019) “Ornamental Morphology of Ionic liquid Functionalized Ternary Doped N, P, F and N, B, F-Reduced Graphene oxide and Their Prevention Activities of Bacterial Biofilm-Associated with Orthopedic Implantation, Journal: Materials Science & Engineering C, Vol. 98, 1122-1132. (Impact Factor: 5.08).
15. **M. Sundrarajan**, M. Balaji, S. Jegatheeswaran and S. Selvam, (2018), Nano - Metal Particles PEGylated fluor - Hydroxyapatite Nanocomposites in the Ionic Liquid Medium: Detailed Investigation of Orthopedic Performances), Bodhi International journal of Research in Humanities, Arts and Science, Vol. 3, 363-369. (IF – 2.135)
16. J. Suresh<sup>1</sup>, G.Pradheesh<sup>2</sup>, V.Alexramani<sup>3</sup>, **M. Sundrarajan**<sup>4</sup> and Sun Ig Hong, (2018), Green synthesis and characterization of zinc oxide nanoparticle using insulin plant (*Costus pictus D. Don*) and investigation of its antimicrobial as well as anticancer activities, Advances in Natural Sciences: Nanoscience and Nanotechnology, Vol. 9, 015008 – 015016. (Impact Factor: 0.94).
17. A. Sangili, M. Annalakshmi, S-M. Chen, P. Balasubramanian, and **M. Sundrarajan**, (2019), Synthesis of silver nanoparticles decorated on core-shell structured tannic acid coated iron oxide nanospheres for excellent electrochemical detection and efficient catalytic reduction of hazardous 4-nitrophenol, Composites Part B, Vol. 162, 33-42. (Impact Factor: 4.902).
18. M. Balaji , P. Nithya , S. Jegatheeswaran , S. Selvam, and **M. Sundrarajan**, (2018) “Ternary nanocomposite designed by MWCNT backbone PPy/Pd for efficient catalytic

approach toward reduction and oxidation reactions, *Journal of Advanced Powder Technology*, Vol. 29, 3173-3182. (Impact Factor: 2.943).

19. J. Kalaiselvi mary, **M. Sundrarajan**, and M. Ramesh Prabhu, (2018) “Preparation and Characterization of chitosan- based nanocomposite hybrid polymer electrolyte membranes for fuel cell application”, *Journal of Ionics*, Vol.24 [11], 3555–3571. (Impact Factor: 2.347).
20. J. Suresh, G. Pradheesh, V. Alexramani, **M. Sundrarajan**, and S. Ig Hong, (2018) “Green synthesis and characterization of hexagonal shaped MgO nanoparticles using insulin plant (*Costus pictus* D. Don) leave extract and its antimicrobial as well as anticancer activity”, *Journal of Advanced Powder Technology*, Vol.29 [7], 1685-1694. (Impact Factor: 2.943).
21. P. Nithya, M. Balaji, S. Jegatheeswaran, S. Selvam, and **M. Sundrarajan**, (2018) Facile biological synthetic strategy to morphologically aligned CeO<sub>2</sub>/ZrO<sub>2</sub> core nanoparticles using *Justicia adhatoda* extract and ionic liquid: Enhancement of its bio-medical properties, *Journal of Photochemistry & Photobiology, B: Biology*, Vol. 178, 481-488. (Impact Factor: 3.158).
22. S. Jegatheeswaran, S. Selvam, J. Anandha Raj, M. Balaji, K. Bama, and **M. Sundrarajan**, (2017) “ Influences of ionic liquid and temperature on the tailorable surface morphology of F-apatite nanocomposites for enhancing abilities for orthopedic implantation”, *Journal of Materials Science & Engineering C*”, Vol. 84, 99-107. (Impact Factor: 5.080).
23. M. Balaji, S. Jegatheeswaran, P. Nithya, P. Boomi, S. Selvam, and **M. Sundrarajan**, (2018) “ Photoluminescent reduced graphene oxide quantum dots from latex of *Calotropis gigantea*, for metal sensing, radical scavenging, cytotoxicity, and bioimaging in *Artemia salina*: A greener route”, *Journal of Photochemistry & Photobiology, B: Biology*, Vol. 178, 371-379. (Impact Factor: 3.158).
24. **M. Sundrarajan**, K. Bama, G. Selvanathan, and M. Ramesh Prabhu, (2018) “Ionic liquid-mediated: Enhanced surface morphology of silver/manganese oxide/bentonite for improved

- biological activities”, *Journal of Molecular Liquids*, Vol. 249, 1020 – 1032. (Impact Factor: 4.513).
25. M. Balaji, S. Jegatheeswaran, S. Selvam, A. Sangili and **M. Sundrarajan**, (2017) “Highly Biological Active Antibiofilm, Anticancer and Osteoblast Adhesion Efficacy from MWCNT/PPy/Pd nanocomposite”, *Journal of Applied Surface Science*, Vol. 434, 400 - 411. (Impact Factor: 3.387).
  26. Bama Krishnan and **M. Sundrarajan**, (2017) “Ag/TiO<sub>2</sub>/bentonite nanocomposite for biological applications: synthesis, characterization, antibacterial & cytotoxic investigation”, *Journal of Advanced Powder Technology*, Vol. 28, 2265-2280. (Impact Factor: 2.943).
  27. K. Bama and **M. Sundrarajan**, (2017), “Improved surface morphology of silver/copper oxide/bentonite nanocomposite using aliphatic ammonium based ionic liquid for enhanced biological activities” *Journal of Molecular Liquids*, Vol. 241, 1044 - 1058 (Impact Factor: 4.513).
  28. **M. Sundrarajan**, K. Bama, M. Bhavani, S. Jegatheeswaran, S. Ambika, A. Sangili, P. Nithya, and R. Sumathi, (2017) “Obtaining titanium dioxide nanoparticles with spherical shape and antimicrobial properties using *M. citrifolia* leaves extract by hydrothermal method”, *Journal of Photochemistry & Photobiology, B: Biology*, Vol.171, 117 – 124 (Impact Factor: 3.158).
  29. **M. Sundrarajan**, S. Jegatheeswaran, S. Selvam, R. Gowri, M. Balaji, and K. Bharathi, (2017) “Green approach: Ionic liquid assisted synthesis of nanocrystalline ZnO in phyto medium and their antibacterial investigation”, *Journal of Materials Letters*, Vol. 201, 31-34. (Impact Factor: 2.687).
  30. S. Selvam, B. Balamuralitharan, S. Jegatheeswaran, Mi-Young Kim, S.N. Karthicka, J. Anandha Raj, P. Boomi, **M. Sundrarajan**, K. Prabakar, and Hee-Je Kim, (2017) “Electrolyte imprinted graphene oxide-Chitosan chelate with copper crosslinked composite electrodes for intense cyclic stable flexible super capacitors”, *Journal of Materials Chemistry A*, Vol.5, 1380-1386. (Impact Factor: 9.931).

31. K. Bama and **M. Sundrarajan**, (2017), “Synthesis and characterization of Mn<sub>3</sub>O<sub>4</sub>/BC nanocomposite and its antimicrobial activity” Journal of inorganic and organometallic polymers and materials, Vol. 27, 275-284. (Impact Factor: 1.74).
32. K. Bama and **M. Sundrarajan**, (2017), “Facile Synthesis and antimicrobial activity of manganese oxide/bentonite nanocomposite”, Journal of Research on chemical intermediates, Vol. 43, 2351-2365. (Impact Factor: 1.674).
33. S. Ambika and **M. Sundrarajan**, (2016), “[EMIM] BF<sub>4</sub> ionic liquid-mediated synthesis of TiO<sub>2</sub> nanoparticles using Vitex negundo Linn extract and its antibacterial activity”, Journal of Molecular liquids, Vol. 221, 986-992. (Impact Factor: 4.513).
34. S. Jegatheeswaran, S. Selvam, V. Sri Ramkumar, and **M. Sundrarajan**, (2016), “Novel strategy for f-HAp/PVP/Ag nanocomposite synthesis from fluoro based ionic liquid assistance: Systematic investigations on its antibacterial and cytotoxicity behaviors”, Journal of Materials science and engineering C, Vol. 67, 8-19. (Impact factor: 5.080).
35. S. Jegatheeswaran, S. Selvam, V. Sri Ramkumar and **M. Sundrarajan**, (2016), “Facile green synthesis of silver doped fluor-hydroxyapatite/ $\beta$ -cyclodextrin nanocomposite in the dual acting fluorine-containing ionic liquid medium for bone substitute applications”, Journal of Applied surface science, Vol. 371, 468-478. (Impact Factor: 4.439).
36. **M. Sundrarajan**, S. Jegatheeswaran, S. Selvam, N. Sanjeevi, and M. Balaji, (2015) “The ionic liquid assisted green synthesis of hydroxyapatite nanoplates by Moringa oleifera flower extract: A biomimetic approach”, Journal of Materials and Design, Vol. 88, 1183–1190. (Impact Factor: 4.525).
37. S.K. Kannan, and **M. Sundrarajan**, (2015) “Green synthesis of ruthenium oxide nanoparticles: Characterization and its antibacterial activity”, Journal of Advanced powder technology, Vol.26, 1505-1511. (Impact Factor: 2.943).

38. S. Ambika and **M. Sundrarajan**, (2015) “Plant-extract mediated synthesis of ZnO nanoparticles using Pongamia pinnata and their activity against pathogenic bacteria”, Journal of Advanced Powder Technology, Vol. 26, 1294-1299 (Impact Factor: 2.943)
39. S. Ambika and **M. Sundrarajan**, (2015) “Green biosynthesis of ZnO nanoparticles using vitex negundo L.extract: Spectroscopic investigation of interaction between ZnO nanoparticles and human serum albumin”, Journal of Photochemistry and Photobiology B: Biology, Vol. 149, 143-148. (Impact Factor: 3.165).
40. S.K. Kannan and **M. Sundrarajan**, (2015) “Biosynthesis of Yttrium oxide nanoparticles using Acalypha indica leaf extract”, Journal of Bulletin of Materials Science, Vol. 38, 945-950. (Impact Factor: 1.08).
41. S. Ambika and **M. Sundrarajan**, (2015) “Antibacterial behavior of Vitex negundo extract assisted ZnO nanoparticles against pathogenic bacteria”, Journal of Photochemistry and PhotobiologyB: Biology, Vol.146, 52-57. (Impact Factor: 3.165).
42. S. Jegatheeswaran and **M. Sundrarajan**, (2015) “PEGylation of novel hydroxyapatite/PEG/Ag nanocomposite particles to improve its antibacterial efficacy”, Materials Science and engineering C, Vol.51, 174-181. (Impact Factor: 5.080).
43. R. Rajiv Gandhi, S. Senthil, R. Rajappan, K. Ramesh, S. Gowri, J. Suresh and **M. Sundrarajan**, (2015) “Ionic liquids: A Green solvent for the Biosynthesis of MgO Nanoparticles Using Banana Stem Plant Extract”, Journal of Nanoengineering and Nanomanufacturing, Vol.5, 1-7. (Impact Factor:-)
44. K. Ramanujam and **M. Sundrarajan**, (2014) Biocidal activities of monochloro triazine – $\beta$ -cyclodextrin with MgO modified cellulosic fabric, The Journal of the Textile Institute; In press. (Impact Factor: 0.725)
45. K. Ramanujam and **M. Sundrarajan**, (2014) “Antibacterial effects of biosynthesized MgO nanoparticles using ethanolic fruit extract of Emblica Officinalis”, Journal of Photochemistry and Photobiology B: Biology, Vol.141, 296-300. (Impact Factor: 3.165).

46. R.Rajiv Gandhi, S. Senthil, R. Rajappan, K. Ramesh and **M. Sundrarajan**, (2014) “[BMIM] BF<sub>4</sub>, [EMIM] BF<sub>4</sub> and [BMIM] PF<sub>6</sub> Ionic liquids assisted synthesis of MgO nanoparticles: Controlled size, much morphology and antibacterial properties”, Journal of Bionanoscience, Vol. 8, 1-7. (Impact Factor: 1.17).
47. S. K. Kannan and **M. Sundrarajan**, (2014) “A Green approach for the synthesis of a cerium oxide nanoparticle: Characterization and antibacterial activity”, International Journal of Nanoscience, Vol. 13 [3], 1-7. (Impact Factor: 0.56).
48. M. Ramalakshmi, P. Shakthivel and **M. Sundrarajan**, (2014) “Novel method of room temperature ionic liquid assisted Fe<sub>3</sub>O<sub>4</sub> nanocubes and nanoflakes synthesis”, Journal of Materials Research Bulletin, Vol. 48 [8], 2758-2765. (Impact Factor: 2.873).
49. R. Yuvakumar, J. Suresh, A. Joseph Naathanael, S.I. Hong and **M. Sundrarajan**, “Novel green synthesis strategy to prepare ZnO nanocrystals using rambutan (*Nephelium lappaceum* L.) peel extract and its antibacterial applications”, Journal of Material Science and Engineering C, Vol. 41, 17-27. (Impact Factor: 5.080).
50. R. Yuvakumar, J. Suresh, A. Joseph Naathanael, S.I. Hong and **M. Sundrarajan**, (2014) “Rambutan (*Nephelium lappaceum* L.) peel extract as synthesis of nickel oxide nanocrystals”, Journal of Materials letters, Vol. 128, 170-174. (Impact Factor: 2.687).
51. S.Ambika and **M. Sundrarajan**, (2014) “Synthesis of b-cyclodextrin /ZnO nanocomposites and its improve antibacterial activity on cotton fabric”, World journal of pharmacy and pharmaceutical sciences, Vol. 3 [4], 751-761. (Impact Factor: 0.19).
52. K. Ramanujam and **M. Sundrarajan**, (2014) “Grafting of cellulosic fabric using PVP with MgO nanoparticles for improve performance of bacterial and fungal pathogens”, World journal of pharmacy and pharmaceutical sciences, Vol. 3 [3], 1989-2004. (Impact Factor: 0.19).
53. J. Suresh, R. Yuvakumar, A. Joseph Naathanael, S. I. Hong and **M. Sundrarajan**, (2014) “Antibacterial and wash durability properties of untreated and treated cotton fabric using

MgO and NiO nanoparticles”, Journal of Applied mechanics and materials, Vol. 508, 48-51. (Impact Factor: 0.16).

54. R. Yuvakumar, J. Suresh, A. Joseph Naathanael, S. I. Hong and **M. Sundrarajan**, (2014) “A comparative study on antibacterial and wash durability behavior of ZnO and CuO nanoparticles treated cotton fabric using sodium alginate as cross linker”, Journal of Applied mechanics and materials, Vol. 508, 44-47. (Impact Factor: 0.16).
55. S. Gowri, R. Rajiv Gandhi and **M. Sundrarajan**, (2014) “Structural, optical, antibacterial and antifungal properties of zirconia nanoparticles by biobased protocol”, Journal of material science and technology, Vol. 30 [8], 782-790. (Impact Factor: 3.609).
56. S. Gowri, R. Rajiv Gandhi and **M. Sundrarajan**, (2013) “Green synthesis of tin oxide nanoparticles by aloe vera: Structural, optical and antibacterial properties”, Journal of nanoelectronics and optoelectronics, Vol.8, 1-10. (Impact Factor: 0.59).
57. M. Ramalakshmi and **M. Sundrarajan**, (2013) “[BMIM] [TfO] Ionic liquid-assisted oriented growth of  $\text{Co}_3\text{O}_4$  nanoworms materials”, Journal of Materials Research Bulletin, Vol. 48 [2], 618-623. (Impact Factor: 2.873).
58. **M. Sundrarajan** and A. Rukmani, (2013) “Inclusion of Thymol into bio-polished cyclodextrin grafted fabric for durable enhanced microbial resistance”, Journal of green science and technology, Vol. 1 [1], 6-13. (Impact Factor :-)
59. R. Rajiv Gandhi, S. Gowri, J. Suresh and **M. Sundrarajan**, (2013) “Ionic liquid assisted synthesis of ZnO nanostructures: controlled size, morphology and antibacterial properties”, Journal of material science and technology, Vol. 29 [6], 533-538. (Impact Factor: 3.609).
60. **M. Sundrarajan** and A. Rukmani, (2013) “Durable antibacterial finishing on cotton by impregnation of limonene microcapsules”, Journal of Advanced chemistry letters, Vol.1, 40- (Impact Factor: 1.20).
61. R. Rajiv Gandhi, J. Suresh, S.Gowri and **M. Sundrarajan**, (2012) Facile and green synthesis of ZnO nanostructures using Ionic liquid assisted banana stem extract route, Advanced science letters; Vol.18, 234-240. (Impact Factor: 1.2).

62. R. Rajiv Gandhi, J. Suresh, S. Gowri, S. Selvam and **M. Sundrarajan**, (2013) “Ultrasonic dyeing of enzyme treated organic cotton using nyctanthes arbor- triatis, Journal of Chemical science transactions, Vol. 2 [2] 642-648 (Impact Factor:-)
63. R. Rajiv Gandhi, S. Gowri, J. Suresh and **M. Sundrarajan**, (2012) “Ionic liquid assisted synthesis of ZnO nanoparticles: Growth mechanism under different calcination temperature”, Journal of nanoelectronics and optoelectronics, Vol.8, 1- 4. (Impact Factor: 0.59).
64. M. Ramalakshmi and **M. Sundrarajan**, (2013) “Ionic liquid- assisted synthesis of nickel oxide magnetic nanoparticles”, Asian journal of chemistry; Vol. 25 [6], 3081-3083. (Impact Factor: 0.14).
65. J. Suresh, R. Rajiv Gandhi, S. Selvam and **M. Sundrarajan**, (2013) “Synthesis of magnesium oxide nanoparticles by wet chemical method and it’s antibacterial activity”, Journal of Advanced materials research, Vol. 678, 297-300. (Impact Factor: 0.23).
66. J. Suresh, R. Rajiv Gandhi, S. Gowri, S. Selvam and **M. Sundrarajan**, (2012) “Antibacterial activity of magnesium (II) ions loated cyclodextrin- grafted- cotton fabric”, Asian journal of chemistry, Vol. 24 [12], 5629-5631. (Impact Factor: 0.14).
67. **M. Sundrarajan**, J. Suresh and R. Rajiv Gandhi, (2012) “A comparative study on antibacterial properties of MgO nanoparticles prepared under different calcination temperature”, Digest journal of nanomaterials and biostructures, Vol. 7 [3], 983-989. (Impact Factor: 0.61).
68. **M. Sundrarajan**, R. Rajiv Gandhi, A. Rukmani, S. Selvam, J. Suresh and S. Gowri, (2012) “Chitosan and cyclodextrin modification on cellulosic fabric for enhanced natural dyeing”, Journal of Chemical science transactions, Vol. 1 [2], 440-446. (Impact Factor: 0.30).
69. **M. Sundrarajan** and A. Rukmani, (2012) “Biopolishing and cyclodextrin derivative grafting on cellulosic fabric for incorporation of antibacterial agent thymol”, Journal of the textile institute, Vol. 104 [2], 188-196. (Impact Factor: 0.94).

70. **M. Sundrarajan**, S. Selvam and K. Ramanujam, (2012) “Synthesis of sulfated  $\beta$ -cyclodextrin/cotton/ZnO nano composite for improve the antibacterial activity and dyeability with azadirachta indica”, Journal of applied polymer science, Vol. 128 [1], 108-114. (Impact Factor: 1.67).
71. R. Rajiv Gandhi, S. Gowri, J. Suresh, S. Selvam and **M. Sundrarajan**, (2012) “Biosynthesis of tin oxide nanoparticles using corolla tube of nycatanthes arbor-tristis flower extract”, Journal of bio based materials and Bioenergy, Vol. 6, 1-5. (Impact Factor: 0.74).
72. J. Suresh, R. Rajiv Gandhi, S. Gowri, S. Selvam and **M. Sundrarajan**, (2012) “Surface modification and antibacterial behavior of bio-synthesized MgO nanoparticles coated cotton fabric”, Journal of biobased materials and Bioenergy, Vol. 6, 1-7. (Impact Factor: 0.74).
73. R. Rajiv Gandhi, J. Suresh and **M. Sundrarajan**, (2012) “Effect of calcination temperature on surface morphology of ionic liquid assisted MgO nanoparticles by sol-gel method”, Journal of Advanced science letters, Vol. 5, 1-5. (Impact Factor: 0.42).
74. S. Selvam, R. Rajiv Gandhi, J. Suresh, S. Gowri, S. Ravikumar and **M. Sundrarajan**, (2012) “Antibacterial effect of novel synthesized sulfated  $\beta$ -cyclodextrin crosslinked cotton fabric and its improved antibacterial activities with ZnO, TiO<sub>2</sub> and Ag nanoparticles coating, International journal of pharmaceutics”, Vol. 434, 366-374. (Impact Factor: 3.862).
75. **M. Sundrarajan** and A. Rukmani, (2012) “Durable antibacterial finishing on organic cotton by inclusion of thymol into cyclodextrin derivative”, E-Journal of chemistry; Vol. 9 [3], 1511-1517. (Impact Factor: 0.85).
76. J. Suresh, R. Rajiv Gandhi, S.Gowri, S. Selvam and **M. Sundrarajan**, (2012) “Preparation and characterization of nano-size poly reactive blue MXR”, E-Journal of chemistry, Vol. 9 [3], 1336-1341. (Impact Factor: 0.85).
77. **M. Sundrarajan**, A. Rukmani, R. Rajiv Gandhi and S. Vigneshwaran (2012) “Eco friendly modification of cotton using enzyme and chitosan for enhanced dyeability of curcuma

- longa”, Journal of chemical and pharmaceutical research, Vol. 4 [3], 1654-1660. (Impact Factor: 0.20).
78. **M. Sundrarajan** and M. Ramalakshmi (2012) “Novel cubic magnetite nanoparticle synthesis using room temperature ionic liquid”, E-Journal of chemistry, Vol. 9 [3], 1070-1076. (Impact Factor: 2.882).
79. **M. Sundrarajan**, R. Rajiv Gandhi, J. Suresh and S. Gowri, (2012) “Natural dyeing of silk fabric using eco-friendly mordents”, Asian Journal of Chemistry, Vol. 24 [7], 3109-3112. (Impact Factor: 0.14).
80. **M. Sundrarajan**, R. Rajiv Gandhi, J. Suresh, S. Selvam and S. Gowri (2012) “Sol-gel synthesis of MgO nanoparticles using ionic liquid – [BMIM] BF<sub>4</sub> as capping agent, Journal of Nanoscience and Nanotechnology letters, Vol. 4, 100-104. (Impact Factor: 1.354).
81. J. Suresh, R. Rajiv Gandhi and **M. Sundrarajan**, (2012) “Enhanced dyeability on modified organic cotton using nanochitosan derived from crab shells”, Journal of Advanced science, engineering and medicine, Vol. 4, 256-260. (Impact Factor: 1.354).
82. S. Gowri, **M. Sundrarajan**, S. Selvam, R. Rajiv Gandhi and J. Suresh, (2012) “Antibacterial effect of nyctanthes arbor-tristis extract and biosynthesized TiO<sub>2</sub> nanoparticles coated cotton fabric”, Journal of Advanced science, engineering and medicine, Vol. 4, 55-61. (Impact Factor: 1.354).
83. **M. Sundrarajan** and A. Rukmani, (2011) “Inclusion of antibacterial agent thymol on  $\beta$ -cyclodextrin-grafted organic cotton”, Journal of industrial textiles, Vol. 42 [2], 132-144. (Impact Factor: 1.283).
84. S. Selvam, **M. Sundrarajan**, (2012) “Functionalization of cotton fabric with PVP/ZnO for improved reactive dyeability and antibacterial activity”, Journal of Carbohydrate Polymer, Vol. 87, 1419-1424. (Impact Factor: 5.15).

85. **M. Sundrarajan**, S. Selvam, R. Rajiv Gandhi and J. Suresh, (2011) “Effectively utilize the natural resources as mordant and dyes for dyeing of cotton”, International Journal of current research, Vol. 3, 363-367. (Impact Factor :- )
86. **M. Sundrarajan** and S. Gowri, (2011) “Green synthesis of titanium dioxide nanoparticles by *Nyctanthes arbor-tristis* leaves extract”, Journal of Chalcogenide Letters, Vol.8 [8], 447-451 (Impact Factor: 0.624).
87. **M. Sundrarajan**, S. Selvam and S. Raji, (2009) “Improve the wash fastness of natural dyes on silk fabric”, Journal of Natural Dyes, Vol.56 [8], 67-74. (Impact Factor: 3.767).
88. **M. Sundrarajan**, H. Gurumallesh Prabu, S. Selvam and R. Balaji, (2009) “Dyeing of sulfonation and crosslinked cotton fabric”, Autex Research Journal, Vol.9 [2], 71-77. (Impact Factor: 0.66).
89. **M. Sundrarajan**, H. Gurumallesh Prabu, S. Selvam and S. Kiruthiga, (2008) “Eco-friendly modification and dyeing of cotton fabric”, Journal of Basic & Applied Biology, Vol. 2 [3-4], 38. (Impact Factor: -).
90. **M. Sundrarajan**, G. Vishnu and Kurian Joseph, (2007) “Ozonation of light shaded exhausted reactive dye bath for reuse”, Journal of Dyes and Pigments, Vol.75, 273-278. (Impact Factor: 3.767).
91. **M. Sundrarajan**, G. Vishnu and Kurian Joseph, (2007) “Decolourisation of exhausted reactive dye bath by ozonation for reuse”, International Journal of Environmental Science and Technology, Vol.4 [2], 263- 270. (Impact Factor: 1.76).
92. **M. Sundrarajan**, G. Vishnu and Kurian Joseph, (2006) “Characterization of dye bath exhausted reactive dye bath”, Journal IAEM, Vol. 33 [3], 156-162. (Impact Factor: 2.453).
93. **M. Sundrarajan**, G. Vishnu and Kurian Joseph, (2006) “Ozonation of dark shaded exhausted reactive dye bath for reuse”, Journal of Environmental Science & Engineering; Vol.48 [4], 285-292. (Impact Factor: 2.037).

94. H. Gurumallesh Prabu and **M. Sundrarajan**, (2002) “Effect of bio-salt (TSC) in dyeing of cotton”, Journal of Coloration Technology, Vol. 118, 131-134. (Impact Factor: 1.20).

### **PAPERS PRESENTED IN INTERNATIONAL CONFERENCES**

1. V. Muthulakshmi, A. Mayakrishnan and M. Sundrarajan, Biomedical applications of Ionic Liquid Mediated Neodymium Oxide Nanoparticles by Couroupita Guianensis Abul leaves Extract, 5<sup>th</sup> International Conference on Chemical Research (ICCER-2020), Organised by Post Graduate and Research Department of Chemistry, Jamal Mohamed College, Trichy on 8<sup>th</sup> January 2020.
2. M. Balaji, P. Nithya, V. Muthulakshmi, A. Mayakrishnan, S. Jegatheeshwaran, S. Selvam, G. Selvanathan and **M. Sundrarajan**, Ionic liquid functionalized heteroatom doped PNF-MWCNT and BNF-MWCNT and its enhanced catalytic ability in clean energy and pollution control applications, Frontier Areas in Chemical Technologies- 2019 (FACTs-2019) Organised by Department of Industrial Chemistry, Alagappa University, Karaikudi on .
3. P. Nithya, M. Balaji, V. Muthulakshmi, A. Mayakrishnan, S. Jegatheeshwaran, S. Selvam, K. Bharathi and **M. Sundrarajan**, Facile green synthesis of CeO<sub>2</sub> and Ag doped CeO<sub>2</sub> Nanoparticles using Ionic Liquid medium and their Antibacterial activity, Frontier Areas in Chemical Technologies- 2019 (FACTs-2019) Organised by Department of Industrial Chemistry, Alagappa University, Karaikudi on
4. V. Muthulakshmi, M. Balaji, P. Nithya, A. Mayakrishnan, H. Gurumallesh prabhu, A. Rukmani and **M. Sundrarajan**, Green approach for the synthesis of Yb<sub>2</sub>O<sub>3</sub> Nanoparticles by Couroupita Guianensis abul leaves extract and biomedical applications, Frontier Areas in Chemical Technologies- 2019 (FACTs-2019) Organised by Department of Industrial Chemistry, Alagappa University, Karaikudi on

5. A. Mayakrishnan, M. Balaji, P. Nithya, V. Muthulakshmi, K. Ramanujam, V. Maheshkumar and **M. Sundrarajan**, Teritary composite material used for Nanofiberous formation in biomedical application, Frontier Areas in Chemical Technologies- 2019 (FACTs-2019) Organised by Department of Industrial Chemistry, Alagappa University, Karaikudi on
6. V. Aiswarya, M. Balaji, P. Nithya, S. Gowri, K. Kottaisamy and **M. Sundrarajan**, Plant mediated synthesis of TiO<sub>2</sub> and MgO nanoparticles using *Abutilon Indicum flowers* extract and their Antibacterial Activity, Frontier Areas in Chemical Technologies- 2019 (FACTs-2019) Organised by Department of Industrial Chemistry, Alagappa University, Karaikudi on
7. G. Bhuvaneshwari, N. Uthayakumar, M. Balaji, P. Nithya, S. Jagatheeswaran, S. Selvam and **M. Sundrarajan**, Ionic liquid assisted synthesis of Tri-Doped N,P,F and B,N,F- MWCNT and their prevention activities of bacterial bioflim- associated with orthopedic implantation, Frontier Areas in Chemical Technologies- 2019 (FACTs-2019) Organised by Department of Industrial Chemistry, Alagappa University, Karaikudi on
8. V. Gayathri, B. Pavithra, P. Nithya, M. Balaji, K. Bama, S. Jagatheeswaran, S. Selvam, K. Kottaisamy, M. Ramalakshmi and **M. Sundrarajan**, Solanum Procumben leaves extract mediated green synthesis of Ag-Pd/ Mn<sub>3</sub>O<sub>4</sub> nanoparticles and its antibacterial activity, Frontier Areas in Chemical Technologies- 2019 (FACTs-2019) Organised by Department of Industrial Chemistry, Alagappa University, Karaikudi on
9. J. Maheshwari, J. Saranya, M. Balaji, P. Nithya, V. Muthulakshmi, C. Subbu, M. Karunakaran and **M. Sundrarajan**, Ionic liquid medium synthesis and characterization of ZnO NPs by Leucas Aspera leaves extract with enhanced Photocatalytic and Biomedical applications, Frontier Areas in Chemical Technologies- 2019 (FACTs-2019) Organised by Department of Industrial Chemistry, Alagappa University, Karaikudi on

10. S. Revathi, V. Bhuvenshwari, S. Ambika, V. Muthulakshmi, M. Rajan and **M. Sundrarajan**, Ionic liquid medium synthesis and characterization of Titanium di Oxide nanoparticles by *Tabernamentana Divaricata* leaves extract with enhanced Biomedical applications, Frontier Areas in Chemical Technologies- 2019 (FACTs-2019) Organised by Department of Industrial Chemistry, Alagappa University, Karaikudi on
11. C. Subbu, **M. Sundrarajan** and M. Karunakaran, The effect of ZrO<sub>2</sub> filler particle concentration on the ionic conductivity variation of PVC/PEO based gel polymer electrolyte, Frontier Areas in Chemical Technologies- 2019 (FACTs-2019) Organised by Department of Industrial Chemistry, Alagappa University, Karaikudi on
12. R. Subhulakshmi, G. Banupriya, M. Balaji, P. Nithya, V. Muthulakshmi, A. Mayakrishnan, J. Suresh and **M. Sundrarajan**, Synthesis and characterization of SrO/  $\beta$ -CD nanocomplex for biological application, Frontier Areas in Chemical Technologies- 2019 (FACTs-2019) Organised by Department of Industrial Chemistry, Alagappa University, Karaikudi on
13. **M. Sundrarajan**, M. Balaji, S. Jegatheeswaran, S. Selvam, Nano-metal particles Decorated PEGylated fluor-hydroxyapatite Nanocomposites in the Ionic Liquid Medium: Detailed Investigation of Orthopedic Performances, International conference on Humanities, Arts and Science organized by University of Putra Malaysia (UPM), Malaysia on 23 – 28<sup>th</sup> August 2018.
14. M. Balaji, P. Nithya, V. Muthulakshmi, A. Mayakrishnan, S. Jegatheeswaran, S. Selvam and **M. Sundrarajan**, Ionic Liquid Functionalization of Ternary Doping Of N, B, F-Reduced Graphene Oxide With Ornate Morphology As Efficient Metal Free Electrocatalysts For The Oxygen Reduction Reaction: A Synergetic Effect By Doping With N, B and F. International conference on Sustainable Energy Technologies, Bharathidasan University, Tiruchirappalli on 27-28<sup>th</sup> June 2018.

15. P. Nithya, M. Balaji, V. Muthulakshmi, S. Jegatheeswaran, S. Selvam and **M. Sundrarajan**, [BMIM] PF<sub>6</sub> Ionic Liquid Mediated Green Synthesis Of Ag-Au/ZnO Nanoparticles Using *Justicia adhatoda* Leaves Extract And It's Antibacterial Activity. International conference on Sustainable Energy Technologies, Bharathidasan University, Tiruchirappalli on 27-28<sup>th</sup> June 2018.
16. . S. Jegatheewaran, M. Balaji, J. Anandha Raj, P. Boomi, J. Jeyakanthan, J. Joseph Sahayarayan, **M. Sundrarajan** and S. Selvam, Ionic Liquid-Assisted One-Step Synthesis of rGo/MnCO<sub>3</sub> Composite for High-Performance Supercapacitor Electrodes, International conference on Frontier Areas in Chemical Technologies (FACTs-2017), Department of Industrial Chemistry, Alagappa University, Karaikudi 6-8<sup>th</sup> July 2017.
17. K. Bama and **M. Sundrarajan**, A Green Approach: Silver/manganese oxide nanocomposite supported on bentonite by thermal decomposition method and their biological activities, International conference on Frontier Areas in Chemical Technologies (FACTs-2017), Department of Industrial Chemistry, Alagappa University - Karaikudi on 6-8<sup>th</sup> July 2017.
18. M. Balaji, S. Jegatheeswaran, P. Nithya and **M. Sundrarajan**, Bifunctional Biological Active Antibiofilm and Osteoblast Adhesion Efficacy from MWCNT/PPy/Pd nanocomposite, International conference on Frontier Areas in Chemical Technologies (FACTs-2017), Department of Industrial Chemistry, Alagappa University - Karaikudi on 6-8<sup>th</sup> July 2017.
19. A. Sangili, S. Jegatheeswaran, S. Ambika, K. Bama, M. Balaji, P. Nithya, R. Sumathi, M. Abdul Kadir and **M. Sundrarajan**, Silica-coated Magnetic Nanoparticles Supported Heteropoly Acid composites catalyzed efficient conversion of nitrile from aldehyde, International conference on Frontier Areas in Chemical Technologies (FACTs-2017),

Department of Industrial Chemistry, Alagappa University – Karaikudi on 6-8<sup>th</sup> July 2017.

20. P. Nithya, M. Balaji, S. Jegatheeswaran, S. Selvam and **M. Sundrarajan**, Ionic liquid mediated green synthesis of CeO<sub>2</sub>-ZrO<sub>2</sub> core metal oxide nanoparticles and its Antioxidant activity, International conference on Frontier Areas in Chemical Technologies (FACTs-2017), Department of Industrial Chemistry, Alagappa University – Karaikudi on 6-8<sup>th</sup> July 2017.
21. R. Sumathi, S. Jegatheeswaran, S. Selvam and **M. Sundrarajan**, Morphology Improved Synthesis of Yttrium doped Hydroxyapatite Nanocrystals in Ionic Liquid medium, International conference on Frontier Areas in Chemical Technologies (FACTs-2017), Department of Industrial Chemistry, Alagappa University – Karaikudi on 6-8<sup>th</sup> July 2017.
22. **M. Sundrarajan**, Synthesis of nanomaterials by greener approach and their biological application, International conference on Frontier Areas of Nanomaterials (FAN-2017), Shri sakthikailassh Women's College, Selam on 14<sup>th</sup> July 2017.
23. M. Balaji, S. Jegatheeswaran, S. Selvam and **M. Sundrarajan**, Polypyrrole – Multiwall carbon nanotubes hybrid with anchoring palladium nanoparticles as bifunctional nanocomposite for highly active and stable electrocatalysis in International conference on Renewable Energy Science and Technology (ICREST – 17) in Department of Energy Science, Alagappa University, Karaikudi on 10<sup>th</sup> and 11<sup>th</sup> March 2107.
24. P. Nithya, M. Balaji, S. Jegatheeswaran, S. Selvam and **M. Sundrarajan**, Ionic liquid mediated green synthesis of CeO<sub>2</sub> – ZrO<sub>2</sub> core metal oxide nanoparticles and its antibacterial activity in in International conference on Renewable Energy Science and Technology (ICREST – 17) in Department of Energy Science, Alagappa University, Karaikudi on 10<sup>th</sup> and 11<sup>th</sup> March 2107.

25. K. Bama, S.Jegatheeswaran, S. Ambika, M. Balaji, A. Sangili, P. Nithya, and **M. Sundrarajan**, CuO-Bentonite based nanostructure for enhanced biological application in International Conference on Chemical and Environmental Research in Jamal Mohamed College, Tiruchirappalli on 7<sup>th</sup> January 2017
26. A. Sangili and **M. Sundrarajan**, Synthesis of Magnetically Recoverable, Reusable Magnetic Fe<sub>3</sub>O<sub>4</sub>@C/Ag nanoparticles for catalytic activity of nitro aromatic compound by using NaBH<sub>4</sub> in International Conference on Chemical and Environmental Research in Jamal Mohamed College, Tiruchirappalli on 7<sup>th</sup> January 2017.
27. S. Jegatheeswaran, S. Selvam, S.N. Karthick and **M. Sundrarajan**, Synthesis of nanocrystalline Au substituted hydroxyapatite: Investigation on cytocompatibility and antibacterial efficacy in the International Conference in Frontier Areas in Chemical Technologies organized by Department of Industrial Chemistry, Alagappa University, Karaikudi on 21-23<sup>rd</sup> March 2016.
28. S. Ambika, **M. Sundrarajan** and V. Magesh Kumar, CuO nanostructure: Optical and antibacterial activity against pathogenic bacteria in the International Conference in Frontier Areas in Chemical Technologies organized by Department of Industrial Chemistry, Alagappa University, Karaikudi on 21-23<sup>rd</sup> March 2016.
29. K. Bama, **M. Sundrarajan** and K. Bharathi, Enhanced antibacterial activity and low bandgap energy of ZnO/BC nanocomposite material in the International Conference in Frontier Areas in Chemical Technologies organized by Department of Industrial Chemistry, Alagappa University, Karaikudi on 21-23<sup>rd</sup> March 2016.
30. M. Balaji, **M. Sundrarajan**, S. Selvam and G. Selvanathan, Facile synthesis of Multiwall carbon nanotube supported Palladium doped polypyrrole catalyst in the International Conference in Frontier Areas in Chemical Technologies organized by Department of Industrial Chemistry, Alagappa University, Karaikudi on 21-23<sup>rd</sup> March 2016.
31. A. Sangili, **M. Sundrarajan** and M. Abdul kathir, Synthesis of Pd doped magnetic Fe<sub>3</sub>O<sub>4</sub> nanoparticles in the International Conference in Frontier Areas in Chemical Technologies

organized by Department of Industrial Chemistry, Alagappa University, Karaikudi on 21-23<sup>rd</sup> March 2016.

32. P. Nithya, S. Rajamohamed and **M. Sundrarajan**, Ionic liquid mediated green synthesis of palladium doped nickel oxide to design efficient catalyst in the International Conference in Frontier Areas in Chemical Technologies organized by Department of Industrial Chemistry, Alagappa University, Karaikudi on 21-23<sup>rd</sup> March 2016.
33. A. Sarathkumar Muthuraj, **M. Sundrarajan**, M. Balaji, S. Jegatheeswaran, A. Sangili, S. Selvam and G. Selvanathan, Design to conductive sulfonated incorporated with hybrid SPVdF- ZnO composite for high energy conversion counter electrode in DSSC in the International Conference in Frontier Areas in Chemical Technologies organized by Department of Industrial Chemistry, Alagappa University, Karaikudi on 21-23<sup>rd</sup> March 2016.
34. S. Nagapriya, S. Jegatheeswaran, M. Balamurali and **M. Sundrarajan**, [BMIM]BF<sub>4</sub> assisted morphological improved synthesis of magnetic Fe<sub>2</sub>O<sub>3</sub> nanoparticles in the International Conference in Frontier Areas in Chemical Technologies organized by Department of Industrial Chemistry, Alagappa University, Karaikudi on 21-23<sup>rd</sup> March 2016.
35. K. Ishwarya, K. Bama, J. Anandha Raj and **M. Sundrarajan**, Ag nanoparticles from *Nyctanthes arbor-tristis*: synthesis, characterization and application in the International Conference in Frontier Areas in Chemical Technologies organized by Department of Industrial Chemistry, Alagappa University, Karaikudi on 21-23<sup>rd</sup> March 2016.
36. S. Tamilselvi, S. Ambika, S. Angappan and **M. Sundrarajan**, Facile synthesis of palladium nanoparticles using *Punica granatum* peel extract: Green chemistry approach in the International Conference in Frontier Areas in Chemical Technologies organized by Department of Industrial Chemistry, Alagappa University, Karaikudi on 21-23<sup>rd</sup> March 2016.

37. K. Bama, S. Jegatheeswaran, S. Ambika, M. Balaji, S. Sangili and **M. Sundrarajan**, Antifungal activity of ferric oxide intercalated in/onto bentonite clay nanocomposite, International conference on Chemical and Environmental Research, Jamal Mohamed College, Tiruchirappalli on 17<sup>th</sup> December 2015.
38. S. Ambika, S. Jegatheeswaran, K. Bama, M. Balaji, S. Sangili and **M. Sundrarajan**, Ionic liquid: A Designer solvent for the biosynthesis of anatase TiO<sub>2</sub> nanostructure, International conference on Chemical and Environmental Research, Jamal Mohamed College, Tiruchirappalli on 17<sup>th</sup> December 2015.
39. S. Jegatheeswaran, S. Selvam, K. Bama and **M. Sundrarajan**, Tailoring the surface of nano hydroxyapatite/ Polymer/ Ag composite in the ionic liquid medium and to study on its antibacterial activity in Advancements in polymeric materials in Indian institute of science, Bangalore on 20 – 22<sup>th</sup> February 2015.
40. S.Gowri, K.Subramaniyan, S.Maruthamuthu and **M. Sundrarajan**, Bio mediated synthesis of ZnO nanoparticles and their performance of photocatalytic degradation of dye in International conference on chemistry in synergy with materials and biology (ICMB-2014), PG & Research Department of Chemistry, Bishop Heber College, Tiruchirappalli on 10-11<sup>th</sup> January 2014.
41. S.Ambika, K.Ramanujam, S.Jegatheeswaran and **M. Sundrarajan**, Synthesis of  $\beta$ -Cyclodextrin/ZnO nanocomposite and its antibacterial activity on cotton fabric in International conference on chemistry in synergy with materials and biology (ICMB-2014), PG & Research Department of Chemistry, Bishop Heber College, Tiruchirappalli on 10-11<sup>th</sup> January 2014.
42. S.Jegatheeswaran, S.Selvam, K.Ramanujam, S.Ambika and **M.Sundrarajan**, Synthesis of hydroxyapatite/ polyethylene glycol nanocomposite doped with MgO for its antibacterial activity in International conference on chemistry in synergy with materials and biology (ICMB-2014), PG & Research Department of Chemistry, Bishop Heber College, Tiruchirappalli on 10-11<sup>th</sup> January 2014.

43. K.Ramanujam, S.Ambika, S.Jegatheeswaran and **M. Sundrarajan**, Preparation, characterization and antimicrobial properties of MgO nanoparticles in International conference on chemistry in synergy with materials and biology (ICMB-2014), PG & Research Department of Chemistry, Bishop Heber College, Tiruchirappalli on 10-11<sup>th</sup> January 2014.
44. **M. Sundrarajan**, Participated in the International Workshop on Frontier Areas in Chemical Technologies – 2014 (FACT' s- 2014) organized by Department of Industrial Chemistry, Alagappa University, Karaikudi on 21 – 22<sup>nd</sup> February 2014.
45. K.Ramanujam, S.Selvam, S.Jegatheeswaran, S.Ambika and **M. Sundrarajan**, Eco-friendly synthesis of MgO nanoparticles using Emblica Officinalis fruit juice and their antibacterial properties in International conference on advanced materials, processing and devices (AMPD-2013), Department of Materials Science, School of Chemistry, Madurai Kamaraj University, Madurai on 15-16<sup>th</sup> July 2013.
46. S. Ambika, K. Ramanujam, S. Jegatheeswaran, S. Selvam and **M.Sundrarajan**, Green synthesis of ZnO nanoparticles using vitex negundo leaf extract and their biological application in International conference on advanced materials, processing and devices (AMPD-2013), Department of Materials Science, School of Chemistry, Madurai Kamaraj University, Madurai on 15-16<sup>th</sup> July 2013.
47. S. Jegatheeswaran, K. Ramanujam, S.Ambika, S.Selvam and **M.Sundrarajan**, Bio-synthesis of alumina nanopowder using Punica granatum linn and their antibacterial activity in International conference on advanced materials, processing and devices (AMPD-2013), Department of Materials Science, School of Chemistry, Madurai Kamaraj University, Madurai on 15-16<sup>th</sup> July 2013.
48. S. Gowri and **M. Sundrarajan**, Antibacterial activity of Nelumbo nucifera Leaves extract mediated TiO<sub>2</sub> nanoparticles on cotton in International conference in Recent advances in Textile and Electrochemical Sciences in Dept. of Industrial Chemistry, Alagappa University, Karaikudi on 21-23<sup>rd</sup> March 2013.

49. A. Rukmani and **M. Sundrarajan**, Fabrication of antibacterial cotton by microcapsules of syzygium aromatic Essential oil in International conference in Recent advances in Textile and Electrochemical Sciences in Dept. of Industrial Chemistry, Alagappa University, Karaikudi on 21-23<sup>rd</sup> March 2013.
50. M. Ramalakshmi and **M. Sundrarajan**, Cobalt Oxide nanoparticles synthesis using greener solvent in International conference in Recent advances in Textile and Electrochemical Sciences in Dept. of Industrial Chemistry, Alagappa University, Karaikudi on 21-23<sup>rd</sup> March 2013.
51. S. Ambika, S. Selvam and **M. Sundrarajan**, Green synthesis of ZnO nanoparticles using pongamia pinnata leaf extract and their antibacterial activity advances in International conference in Recent advances in Textile and Electrochemical Sciences in Dept. of Industrial Chemistry, Alagappa University, Karaikudi 21-23<sup>rd</sup> on March 2013.
52. **M. Sundrarajan**, S. Jegatheeswaran and S. Selvam, Green biogenic approach for synthesis of alumina ceramic nanoparticles using punica granatum linn extract in International conference in Recent advances in Textile and Electrochemical Sciences in Dept. of Industrial Chemistry, Alagappa University, Karaikudi on 21-23<sup>rd</sup> March 2013.
53. Vishnu V Gopal, S. Selvam and **M. Sundrarajan**, Dyeing of silk fabric using nyctanthes arbor-tristis extracts and their antibacterial activity in International conference in Recent advances in Textile and Electrochemical Sciences in Dept. of Industrial Chemistry, Alagappa University, Karaikudi on 21-23<sup>rd</sup> March 2013.
54. S. Santhiya, S. Selvam and **M. Sundrarajan**, Dyeing and antibacterial properties of nyctanthes arbor-tristis extracts treated jute yarn in International conference in Recent advances in Textile and Electrochemical Sciences in Dept. of Industrial Chemistry, Alagappa University, Karaikudi on 21-23<sup>rd</sup> March 2013.

55. K. Ramanujam, S. Selvam and **M. Sundrarajan**, Biosynthesis of magnesium oxide nanoparticles using *Phyllanthus Emblica* juice and their biological applications in International conference in Recent advances in Textile and Electrochemical Sciences in Dept. of Industrial Chemistry, Alagappa University, Karaikudi on 21-23<sup>rd</sup> March 2013.
56. R. Rajiv Gandhi, J. Suresh, S. Gowri and **M. Sundrarajan**, Biosynthesis of MgO nanoparticles using banana stem plant extract in International conference in Recent advances in Textile and Electrochemical Sciences in Dept. of Industrial Chemistry, Alagappa University, Karaikudi on 21-23<sup>rd</sup> March 2013.
57. S. Selvam, **M. Sundrarajan** and S. Ravikumar, Preparation of ZnO/Cotton composite fabric and treatment with *nyctanthes arbor-tristis* and *ocimum tenuiflorum* extracts for improved antibacterial activity in International conference in Recent advances in Textile and Electrochemical Sciences in Dept. of Industrial Chemistry, Alagappa University, Karaikudi on 21-23<sup>rd</sup> March 2013.
58. J. Suresh, R. Rajiv Gandhi and **M. Sundrarajan**, Surface modification and antibacterial behaviour of biosynthesized ZnO nanoparticles coated cotton fabric in International conference in Recent advances in Textile and Electrochemical Sciences in Dept. of Industrial Chemistry, Alagappa University, Karaikudi on 21-23<sup>rd</sup> March 2013.
59. S. Gowri, R. Rajiv Gandhi and **M. Sundrarajan**, Biological plant mediated synthesis of TiO<sub>2</sub> nanoparticles using *azadirachta indica* leaves extract in International conference on Biological Inorganic chemistry in Periyar University, Salem on 20-22<sup>nd</sup> February 2013.
60. J. Suresh, R. Rajiv Gandhi and **M. Sundrarajan**, Antibacterial activity of magnesium (II) ions incorporated cyclodextrin crafted cotton fabric in International conference on global trends in pure and applied chemical sciences in Asian journal of chemistry, Udaipur, Rajasthan on 3-4<sup>th</sup> March 2012.
61. R. Rajiv Gandhi, J. Suresh and **M. Sundrarajan**, Effect of Calcination temperature on Ionic liquid assisted sol-gel prepared ZnO nanoparticles in International conference on

global trends in pure and applied chemical sciences in Asian journal of chemistry, Udaipur, Rajasthan on 3-4<sup>th</sup> March 2012.

62. S. Selvam and **M. Sundrarajan**, Novel synthesis of sulfated  $\beta$ -cyclodextrin/cotton/TiO<sub>2</sub> nanocomposite and biological applications in International conference on Vistas in Chemistry in Indira Gandhi Centre for Atomic Research, Kalpakkam on 11 – 13<sup>th</sup> October 2011.
63. J. Suresh, R. Rajiv Gandhi and **M. Sundrarajan**, Wet chemical synthesis of aluminium hydroxide nanoparticles and its antibacterial activity in International conference on Vistas in Chemistry in Indira Gandhi Centre for Atomic Research, Kalpakkam on 11 – 13<sup>th</sup> October 2011.
64. **M. Sundrarajan**, Depolarization and COD, TOC removal of textile dye effluents by Ozonation for reuse in Indo-UK workshop on current development of wastewater treatment-advanced separation processes in National Institute of Technology, Tiruchirappalli on 29 -31<sup>st</sup> August 2011.
65. S. Selvam, **M. Sundrarajan** and S. Ravikumar, Synthesis of sulfated  $\beta$ -cyclodextrin/cellulose/ZnO metal nanocomposites and biological applications in International conference on advancements in polymeric materials in CIPET, Chennai on 25-27<sup>th</sup> March 2011.
66. J. Suresh, R. Rajiv Gandhi and **M. Sundrarajan**, Synthesis of magnesium oxide nanoparticles by wet chemical method and its antibacterial activity in International conference on Nanoscience and nanotechnology (ICNN 2011) in Coimbatore Institute of Technology on July 6-8<sup>th</sup> 2011.
67. S. K. Kannan, K. Radhakrishnan and **M. Sundrarajan**, Substituent effects on the UV, IR and <sup>1</sup>H NMR chemical shifts of p-substituted 2-Benzylidene -1,3-Indandiones in International conference on Advanced materials and applications in Kalasalingam University, Krishnan Kovil on 4-5<sup>th</sup> March 2011.

68. A. Rukmani, S. Gowri and **M. Sundrarajan**, Microbial resistance in organic cotton by micro encapsulation of limonene in International conference on Advanced materials and applications in Kalasalingam University, Krishnan Kovil on 4-5<sup>th</sup> March 2011.
69. M. Ramalakshmi and **M. Sundrarajan**, Magnetic nanoparticles synthesis and its characterization using Ionic liquid in International conference on Advanced materials and applications in Kalasalingam University, Krishnan Kovil on 4-5<sup>th</sup> March 2011.
70. J. Suresh, R.Rajiv Gandhi and **M. Sundrarajan**, Modification of organic cotton using chitosan nanoparticles to improve the dyeability in International conference on Advanced materials and applications in Kalasalingam University, Krishnan Kovil on 4-5<sup>th</sup> March 2011.
71. S. Selvam, **M. Sundrarajan** and S. Ravikumar, Antibacterial activity of sulfated  $\beta$ -cyclodextrin modified cellulose with ocimum tenuiflorum in International conference on Advanced materials and applications in Kalasalingam University, Krishnan Kovil on 4-5<sup>th</sup> March 2011.
72. J. Suresh and **M. Sundrarajan**, Synthesis and Characterization of nano size reactive blue MXR in International conference on advancement of nanoscience and nanotechnology in Department of Nanoscience and Technology, Alagappa University on 1-3<sup>rd</sup> March 2010.
73. S. Selvam, **M. Sundrarajan** and S. Ravikumar, Supramolecular assembly of sulfated  $\beta$ -cyclodextrin with cellulose and its biological activity in International conference on supramolecular chemistry and nanomaterials in Department of chemistry, University of Mumbai on 14-16<sup>th</sup> February 2011.
74. **M. Sundrarajan**, Participated in the One day International Workshop attended at Tirupur- Weathering & Light Fastness Testing of Textiles By Q Lab, USA on 7<sup>th</sup> December 2011.

75. **M. Sundrarajan**, Participated in the International Conference on Quality Improvement in Educational Systems organized by Bharathidasan University, Tiruchirappalli on 22<sup>nd</sup> February 2003.

#### **PAPER PRESENTED IN NATIONAL CONFERENCES**

1. **M. Sundrarajan**, participated in the **Swachhta Hi Seva, swachhta Pakhwada, Rashtriya Poshan Maah & Jal Shakti Abhiyan** programmes organized by Alagappa University, Karaikudi during 1<sup>st</sup> July- 30<sup>th</sup> November 2019.
2. **M. Sundrarajan**, participated in the International Conference on Cutting Edge Research in Chemical Science and workshop on Radioactivity in association with IANCAS entitled Morinda citrifolia leaves extract using synthesis of silver doped Copper for Antibacterial Activity held at Poompuhar College, Melaiyur, Nagappattinam on 19<sup>th</sup> September 2019.
3. **M. Sundrarajan**, participated in the **Three day International workshop on E-content Development for MOOCs** among the Faculty Members at Alagappa University, Karaikudi on 10<sup>th</sup>, 12<sup>th</sup>, 13<sup>th</sup> of September 2019.
4. **M. Sundrarajan**, participated in the One Day Workshop on **“Practicing Nai Talim, Experimental Learning, Community and Vocational Education”** Alagappa University, Karaikudi on 3<sup>rd</sup> September 2019.
5. **M. Sundrarajan**, Attended in the One-Day Workshop on **“Technical and Scholarly Writing”** Alagappa University, Karaikudi on 14<sup>th</sup> February 2019.
6. K. Bama and **M. Sundrarajan**, An ionic liquid mediated synthesis of silver/zinc oxide nanoparticles intercalated into bentonite and their biological activities. National Seminar

- on Frontier Areas in Chemical Technologies, Alagappa University, Karaikudi on 22-23<sup>rd</sup> March 2018.
7. M. Balaji, S. Jegatheeswaran, S. Selvam and **M. Sundrarajan**, Biomimetic and cell-mediated mineralization of graphene by ionic liquid assisted nitrogen, phosphate, fluorine tri doped ternary nanocomposite, National Seminar on Frontier Areas in Chemical Technologies, Alagappa University, Karaikudi on 22-23<sup>rd</sup> March 2018.
  8. A. Surya, M. Balaji, M. Rajan and **M. Sundrarajan**, Imidazolium based ionic liquid template for structurally upgraded cerium oxide nanorods. National Seminar on Frontier Areas in Chemical Technologies, Alagappa University, Karaikudi on 22-23<sup>rd</sup> March 2018.
  9. P. Nithya, M. Balaji, S. Jegatheeswaran, A. Surya, V. Muthulakshmi, A. Keerthana, A. Herculin Arun Baby, A. Mayakrishnan, S. Selvam and **M. Sundrarajan**. National Seminar on Frontier Areas in Chemical Technologies, Alagappa University, Karaikudi on 22-23<sup>rd</sup> March 2018.
  10. V. Muthulakshmi, M. Balaji, P. Nithya, A. Surya and **M. Sundrarajan**, Ionic liquid assisted green synthesis of rare lanthanum oxide nanoparticles: Antibacterial and Morphology properties. National Seminar on Frontier Areas in Chemical Technologies, Alagappa University, Karaikudi on 22-23<sup>rd</sup> March 2018.
  11. A. Keerthana, M. Balaji, S. Jegatheeswaran, A. Rukmani, V. Makesh Kumar and **M. Sundrarajan**, Characterization and invitro bioactivity of strontium substituted hydroxyapatite/Graphene oxide/Polyacrylic acid nanocomposite. National Seminar on Frontier Areas in Chemical Technologies, Alagappa University, Karaikudi on 22-23<sup>rd</sup> March 2018.

12. A. Herculin Arun Baby, P. Nithya, V. Muthulakshmi, V. Keerthana, C. Pragathiswaran, H. Gurumallesh Prabhu and **M. Sundrarajan**, Diplocyclos palmatus source for red luminescent carbon quantum dots to intercellular bioimaging in Artemia Salina: A green approach. National Seminar on Frontier Areas in Chemical Technologies, Alagappa University, Karaikudi on 22-23<sup>rd</sup> March 2018.
13. A. Mayakrishnan, M. Balaji, S. Jegatheeswaran, P. Nithya, V. Muthulakshmi, S. Selvam, M. Rajan and **M. Sundrarajan**, Ionic liquid assisted tri doping of nitrogen phosphorous and fluorine into graphene instantaneously enhanced the morphology of ternary composite. National Seminar on Frontier Areas in Chemical Technologies, Alagappa University, Karaikudi on 22-23<sup>rd</sup> March 2018.
14. L.R. Sangavi, K. Bama and **M. Sundrarajan**, A novel synthesis of zinc oxide incorporated into  $\beta$ - cyclodextrin nanocomposite by using hydrothermal method: Biological activities. National Seminar on Frontier Areas in Chemical Technologies, Alagappa University, Karaikudi on 22-23<sup>rd</sup> March 2018.
15. M. Alagumeenal, P. Nithya, M. Balaji, S. Jegatheeswaran, A. Surya, S. Selvam, K. Bharrathi and **M. Sundrarajan**, Green synthesis of yttrium oxide nanoparticles and its antibacterial activity. National Seminar on Frontier Areas in Chemical Technologies, Alagappa University, Karaikudi on 22-23<sup>rd</sup> March 2018.
16. R. Jegatheeswari, P. Nithya, M. Balaji, S. Jegatheeswaran, K. Ramanujam, S. Selvam, S. Ambika, M. Abdul Kadir, S. Gowri, G. Selvanathan and **M. Sundrarajan**, Green synthesis of RuO<sub>2</sub> nanoparticles using *Gloriosa superba* leaves extract and its antibacterial activity. National Seminar on Frontier Areas in Chemical Technologies, Alagappa University, Karaikudi on 22-23<sup>rd</sup> March 2018.

17. P. Suganya, K. Bama, M. Bhavani, K. Bharathi and **M. Sundrarajan**, Green synthesis of silver nanoparticles using *Morinda citrifolia* leaves extract and their antifungal activity, National Seminar on Frontier Areas in Chemical Technologies, Alagappa University, Karaikudi on 22-23<sup>rd</sup> March 2018.
18. S. Sathya, P. Nithya, M. Balaji, K. Bama, K. Ramanujam, K. Elangovan and **M. Sundrarajan**, Ionic liquid assisted green synthesis of magnesium oxide nanoparticles and its antibacterial activity, National Seminar on Frontier Areas in Chemical Technologies, Alagappa University, Karaikudi on 22-23<sup>rd</sup> March 2018.
19. R. Jayamani and M. Sundrarajan, Synthesis of Pd nanoparticles by bio-reduction process using natural plant of aerva lanata extract, National Seminar on Frontier Areas in Chemical Technologies, Alagappa University, Karaikudi on 22-23<sup>rd</sup> March 2018.
20. R. Sumathi, S. Jegatheeswaran, S. Selvam and **M. Sundrarajan**, Ionothermal Synthesis of Hydroxyapatite Nanocrystals in Ionic Liquid ([BMIM<sup>+</sup>] I). National Conference on Biomaterials in medicinal chemistry (BMC) - 2017, Madurai Kamaraj University, Madurai on 12-13<sup>th</sup> April 2017.
21. M. Bhavani, K. Bama, A. Sangili and **M. Sundrarajan**, Green Synthesis of quasi-spherical shape of titanium dioxide nanoparticles using hydrothermal method. National Conference on Biomaterials in medicinal chemistry (BMC) - 2017, Madurai Kamaraj University, Madurai on 12-13<sup>th</sup> April 2017.
22. A. Sangili and **M. Sundrarajan**, Synthesis and characterization of silica-coated magnetic nanoparticles supported Heteropoly acid in National seminar on New trends in chemistry (NTC – 2016), Department of Chemistry, Annamalai University, Chithamabram on 21<sup>st</sup> – 22<sup>nd</sup> October 2016.

23. **M. Sundrarajan**, Participated in the National Workshop on Digitization of Information Sources in Libraries using Open Source Software in Academic Institutions organized by Central Library, Alagappa University, Karaikudi on 15 – 16<sup>th</sup> December 2016.
24. S. Ambika, M. Thiruselvi, S. Jegatheeswaran, K. Bama, M. Balaji, S. Sangili and **M. Sundrarajan**, Synthesis of nanocrystalline ZnO by greener method and their antibacterial activity, National seminar on Recent trends in Organic Synthesis and Chemical Biology, Annamalai University, Chithamabram on 9-10<sup>th</sup> October 2015.
25. K. Bama, S. Jegatheeswaran, S. Ambika, M. Balaji, S. Sangili and M. Sundrarajan, Intercalation of ferric oxide treated bentonite clay: Evaluation of its antibiotic application, National seminar on Recent trends in Organic Synthesis and Chemical Biology, Annamalai University, Chidambaram on 9-10<sup>th</sup> October 2015.
26. S. Jegatheeswaran, S. Selvam and M. Sundrarajan, Structural synthesis of fluorapatite nanocrystals using different imidazolium based ionic liquid: A green process, National conference on Biomaterials in Medicinal Chemistry, Madurai Kamaraj University, Madurai on 21-22<sup>nd</sup> December 2015.
27. S. Jegatheeswaran, **M. Sundrarajan**, S.Selvam, K.Ramanujam, S.Ambika, K.Bama, M. Balaji and V. Maheshkumar, Ionic liquid network as a tool to graft silver nanoparticles on hydroxyapatite nanosticks and its bactericidal effect in Frontier areas in chemical technologies (FACTS – 2015), Department of Industrial Chemistry, Alagappa university, Karaikudi on 6-7<sup>th</sup> March 2015.

28. S.Ambika, **M. Sundrarajan**, K.Ramanujam, S. Jegatheeswaran, K.Bama and M. Balaji, Green synthesis of TiO<sub>2</sub> nanoparticles using tritax procumbens leaf extract and their antibacterial activity in Frontier areas in chemical technologies (FACTS – 2015), Department of Industrial Chemistry, Alagappa university, Karaikudi on 6-7<sup>th</sup> March 2015.
29. K.Bama, K.Ramanujam, S.Jegatheeswaran, S.Ambika, M.Balaji and **M. Sundrarajan**, Synthesis: Intercalation of normal spinal Mn<sub>3</sub>O<sub>4</sub> into sodium bentonite material and their biological application in Frontier areas in chemical technologies (FACTS – 2015), Department of Industrial Chemistry, Alagappa university, Karaikudi on 6-7<sup>th</sup> March 2015.
30. K. Ramanujam, S.Jegatheeswaran, S.Ambika, K.Bama, M.Balaji and **M. Sundrarajan**, Synthesis of pomegranate peel extract mediated SnO<sub>2</sub> nanoparticles for enhanced bactericidal activity in Frontier areas in chemical technologies (FACTS – 2015), Department of Industrial Chemistry, Alagappa university, Karaikudi on 6-7<sup>th</sup> March 2015.
31. M. Balaji, **M.Sundrarajan**, K.Ramanujam, S. Jegatheeswaran, S. Ambika, K. Bama, R. Jeyamani and S. Arockiya Gowri, Synthesis and characterization of coumarin using nano tin metal as a catalyst in Frontier areas in chemical technologies (FACTS – 2015), Department of Industrial Chemistry, Alagappa university, Karaikudi on 6-7<sup>th</sup> March 2015.

32. A. Rukmani and **M. Sundrarajan**, Eco-friendly fabrication of antibacterial cotton by limonene microcapsules in Frontier areas in chemical technologies (FACTS – 2015), Department of Industrial Chemistry, Alagappa university, Karaikudi on 6-7<sup>th</sup> March 2015.
33. R. Jeyamani and **M. Sundrarajan**, Biosynthesis and characterization of palladium nanoparticles using natural sources in Frontier areas in chemical technologies (FACTS – 2015), Department of Industrial Chemistry, Alagappa university, Karaikudi on 6-7<sup>th</sup> March 2015.
34. C. Sangeetha and **M. Sundrarajan**, Green synthesis of copper oxide nanoparticles using punica granatum peel extracts and their antibacterial activity in Frontier areas in chemical technologies (FACTS – 2015), Department of Industrial Chemistry, Alagappa university, Karaikudi on 6-7<sup>th</sup> March 2015.
35. N. Jeyaramachandran and **M. Sundrarajan**, A new approach for crystallization of hydroxyapatite nanostructure in the presence of Ionic liquid in Frontier areas in chemical technologies (FACTS – 2015), Department of Industrial Chemistry, Alagappa university, Karaikudi on 6-7<sup>th</sup> March 2015.
36. S. Suvetha and **M. Sundrarajan**, Ionic liquid mediated synthesis of MgO nanostructures using different reducing agents and evaluate their antibacterial efficacy in Frontier areas in chemical technologies (FACTS – 2015), Department of Industrial Chemistry, Alagappa university, Karaikudi on 6-7<sup>th</sup> March 2015.

37. S. Arockiya Gowri, M.Balaji, **M. Sundrarajan**, K.Ramanujam, S.Jegatheeswaran, S. Ambika, K. Bama and R. Jeyamani, Development of low cast Pt free palladium sulfide/multiwall carbon nanotubes hybrid nanocomposites counter electrode for high efficiency dye sensitized solar cells in Frontier areas in chemical technologies (FACTS – 2015), Department of Industrial Chemistry, Alagappa university, Karaikudi on 6-7<sup>th</sup> March 2015.
38. S. Jegatheeswaran, **M. Sundrarajan**, S. Selvam and M. Balaji, A sol-gel synthesis of nanocrystalline hydroxyapatite using different surfactants like ionic liquid and polymer in Frontier areas in chemical technologies, Department of Chemistry, Thiyagarajar College, Madurai on 26-27<sup>th</sup> February 2015.
39. **M. Sundrarajan**, Participated in the “One day orientation programme on Preparation for Competitive Examinations and Capacity Building” organized by Alagappa University Study Circle, Alagappa University, Karaikudi on 28<sup>th</sup> September 2015.
40. S. Ambika, K. Ramanujam, S. Jegatheeswaran, K. Bama and **M. Sundrarajan**, Biosynthesis and characterization of ZnO nanoparticles using *Solanum trilobatum* and their protein binding study in New opportunities and challenges in chemical research (NOCCR – 2014), PG and Research Department of Chemistry, A.V.V.M. Sri pushpam college, Poondi, Thanjavur on 29-30<sup>th</sup> December 2014.
41. K. Ramanujam, S. Jegatheeswaran, S. Ambika, K. Bama, M. Balaji and **M. Sundrarajan**, Biosynthesis, characterization and antibacterial effect of fruits mediated TiO<sub>2</sub> nanoparticles using *Emblca Officinalis* in New opportunities and challenges in

chemical research (NOCCR – 2014), PG and Research Department of Chemistry, A.V.V.M. Sri pushpam college, Poondi, Thanjavur on 29-30<sup>th</sup> December 2014.

42. R. Gowri, **M. Sundrarajan** and S. Jegatheeswaran, Studies on the effect of ionic liquid in synthesis of ZnO nanostructures using plant extract and their performance in antibacterial activity in New opportunities and challenges in chemical research (NOCCR – 2014), PG and Research Department of Chemistry, A.V.V.M. Sri pushpam college, Poondi, Thanjavur on 29 -30<sup>th</sup> December 2014.
43. S. Jegatheeswaran, S. Selvam, K. Bama, M. Balaji and **M. Sundrarajan**, A simple sol gel technique for synthesis of hydroxyapatite/ silver nanocomposites in the ionic liquid media and its antibacterial efficacy in New opportunities and challenges in chemical research (NOCCR – 2014), PG and Research Department of Chemistry, A.V.V.M. Sri pushpam college, Poondi, Thanjavur on 29 -30<sup>th</sup> December 2014.
44. K. Ramanujam, S. Jegatheeswaran, S. Ambika, K. Bama, M. Balaji and **M. Sundrarajan**, Cassia auriculate aqueous flower extract assisted green synthesis of Magnesium oxide nanoparticles and its antibacterial activity in Current Trends in Electrochemical Sciences, Department of Chemistry, Ananda College, Devakottai on 15-16<sup>th</sup> October 2014.
45. K. Ramanujam and **M. Sundrarajan**, Modification of cellulosic fabric using  $\beta$ - cd with MgO nanoparticles coating for improved natural extracts dye ability in Recent Trends in Smart Materials (NSSM- 2014), Department of Chemistry, Kings College of Engineering, Punalkulam, Thanjavur on 17<sup>th</sup> April 2014.

46. K. Ramanujam, S. Ambika, S. Jegatheeswaran and **M. Sundrarajan**, Advanced oxidation process using decolorization of reactive dye waste in Recent advances in water and wastewater treatment (RAWWT – 2014), Department of chemistry, The Gandhigram Rural University, Gandhigram on 21-22<sup>th</sup> March 2014.
47. S. Jegatheeswaran, K. Ramanujam, S. Ambika, S. Selvam and **M. Sundrarajan**, Biomediated synthesis and characterization of MgO doped hydroxyapatite nanoparticles for biomedical applications in National conference on green processes and nanomaterials (NCGPNM-14), Department of Chemistry, Hindustan University, Padur, Chennai on 8-9<sup>th</sup> January 2014.
48. K. Ramanujam, S. Ambika, S. Jegatheeswaran and **M. Sundrarajan**, Evaluation of antimicrobial properties exhibited by magnesium oxide nanoparticles prepared by sol-gel method coated on cotton fabric in National conference on green processes and nanomaterials (NCGPNM-14), Department of Chemistry, Hindustan University, Padur, Chennai on 8-9<sup>th</sup> January 2014.
49. S. Ambika, K. Ramanujam, S. Jegatheeswaran and **M. Sundrarajan**, Synthesis and evaluation of  $\beta$ -cyclodextrin/ZnO composite for imparting antibacterial activity on cotton fabric in National conference on green processes and nanomaterials (NCGPNM-14), Department of Chemistry, Hindustan University, Padur, Chennai on 8-9<sup>th</sup> January 2014.
50. M. Ramalakshmi and **M. Sundrarajan**, Synthesis and study of physical and magnetic properties of Cobalt oxide Nanowarms, National conference on Recent applications of

nanomaterials in chemistry and environmental research in Department of Chemistry, Kongu Engineering College, Erode on 20-21<sup>st</sup> July 2012.

51. M. Ramalakshmi and **M. Sundrarajan**, Single-phase  $\text{Mn}_3\text{O}_4$  nanoparticles synthesis via ionic liquid – assisted route in Recent Textile and electrochemical science (RATES-2012), Department of industrial chemistry, Alagappa University, Karaikudi on 22<sup>nd</sup>- 23<sup>rd</sup> March 2012.
52. R. Rajiv Gandhi, J Suresh and **M. Sundrarajan**, Ionic liquid (1-n-butyl-3-methylimidazolium hexafluorophosphate) assisted synthesis of MgO nanoparticles by sol-gel method in Recent Textile and electrochemical science (RATES-2012), Department of Industrial Chemistry, Alagappa University, Karaikudi on 22<sup>nd</sup>- 23<sup>rd</sup> March 2012.
53. S.Selvam and **M. Sundrarajan**, Treatment and recycle of automobile waste water treatment by ozonation in Recent Textile and electrochemical science-2012 (RATES-2012), Department of Industrial Chemistry, Alagappa University, Karaikudi on 22<sup>nd</sup>- 23<sup>rd</sup> March 2012.
54. S.Gowri, R. Rajiv Gandhi, J Suresh and **M. Sundrarajan**, Green synthesis of  $\text{TiO}_2$  nanoparticle using natural plant extract in Recent Textile and electrochemical science (RATES-2012), Department of industrial chemistry, Alagappa University, Karaikudi on 22<sup>nd</sup>- 23<sup>rd</sup> March 2012.
55. D.Vincy saranya, S.Selvam and **M. Sundrarajan**, Decolouration of reactive dye waste water and reuse by advance oxidation process in Recent Textile and electrochemical

science (RATES-2012), Department of industrial chemistry, Alagappa University, Karaikudi on 22<sup>nd</sup>- 23<sup>rd</sup> March 2012.

56. A. Rukmani, and **M. Sundrarajan**, Eco-friendly finishing of cotton with microcapsules of neem oil in Recent Textile and electrochemical science (RATES-2012), Department of industrial chemistry, Alagappa University, Karaikudi on 22<sup>nd</sup>- 23<sup>rd</sup> March 2012.

57. K. Ramanujam, S.Selvam and **M. Sundrarajan**, effective decolorization and reuse of monocoloro reactive dye waste water using ozonation in Recent Textile and electrochemical science (RATES-2012), Department of industrial chemistry, Alagappa University, Karaikudi on 22<sup>nd</sup>- 23<sup>rd</sup> March 2012.

58. P. Venkatasen, S.Selvam and **M. Sundrarajan**, Ultrasonicater treatment of domestic waste water and reuse in Recent Textile and electrochemical science (RATES-2012), Department of industrial chemistry, Alagappa University, Karaikudi on 22<sup>nd</sup>- 23<sup>rd</sup> March 2012

59. S. Meenal, S. Selvam and **M. Sundrarajan**, Domestic wastewater and reuse by ozonation in Recent Application of Nanomaterials in Chemistry and Environment research (RANCER 2012), Department of chemistry in Kongu engineering college, Erode on 20-21<sup>st</sup> July 2012.

60. **M. Sundrarajan**, Participated in the National Workshop on Expansion and and Enrichment of Distance Learning organized by Directorate of Distance Education, Alagappa University, Karaikudi on 27 – 28<sup>th</sup> March 2012.

61. **M. Sundrarajan**, participated in One day National Seminar attended at Tirupur- Textile Testing Methods By SDL ATLAS & Premier Color Scan Ltd., Mumbai on 7<sup>th</sup> September 2011.
62. **M. Sundrarajan**, Participated in the National workshop on “Chemistry – Our Environment, Our life and our future” organized by Department of Industrial Chemistry, Alagappa University, Karaikudi on 22 – 23<sup>rd</sup> December 2011.
63. **M. Sundrarajan**, Participated in the Seminar on Weathering & Light Fastness Testing of Textiles by Q lab & Premier Colorscan, Tirupur on 7<sup>th</sup> December 2011.
64. M. Ramalakshmi and **M. Sundrarajan**, Synthesis and characterization of magnetic Nickel oxide nanoparticles in National conference on Recent Trends in Green Synthesis (RTGS-2011), Department of Industrial Chemistry, Alagappa University, Karaikudi on 5-6<sup>th</sup> August 2011.
65. A. Rukmani and **M. Sundrarajan**, Antibacterial finishing of organic cotton with thymol microcapsules, National conference on Recent Trends in Green Synthesis (RTGS-2011) in Department of Industrial Chemistry, Alagappa University, Karaikudi on 5-6<sup>th</sup> August 2011.
66. S. Gowri and **M. Sundrarajan**, Green synthesis and characterization of titanium dioxide nanoparticles using aloe vera extract in National conference on Recent Trends in Green Synthesis (RTGS-2011) in Department of Industrial Chemistry, Alagappa University, Karaikudi on 5-6<sup>th</sup> August 2011.

67. R. Rajiv Gandhi, J Suresh and **M. Sundrarajan**, Bio-synthesis of Tin Oxide nanoparticles using *Nyctanthes arbor tristis* flower extract in National conference on Recent Trends in Green Synthesis (RTGS-2011) in Department of Industrial Chemistry, Alagappa University, Karaikudi on 5-6<sup>th</sup> August 2011.
68. S. Selvam, and **M. Sundrarajan**, Antibacterial activity of ZnO nanoparticles coated cotton fabric with *Artemisia pallens* extract treatment in National conference on Recent Trends in Green Synthesis (RTGS-2011) in Department of Industrial Chemistry, Alagappa University, Karaikudi on 5-6<sup>th</sup> August 2011.
69. **M. Sundrarajan**, Participated in the State level workshop on Structure solving by Powder X-Ray Diffraction (SLWSSP – XRD 2011) organized by School of Physics, Alagappa University, Karaikudi on 26 – 27<sup>th</sup> July 2011.
70. K. Ramanujam, S.Selvam and **M. Sundrarajan**, Antibacterial activity of ZnO nanoparticles with *Azadirachta indica* leaves extract treated cellulose in National conference on recent advances in nanotechnology and biosensors (NCNB-2011) in Department of Bioelectronics and Biosensors, Alagappa University, Karaikudi on 3-4<sup>th</sup> March 2011.
71. **M. Sundrarajan**, S.Selvam, J Suresh and K. Uma Maheswari, Modification of cotton with monochlorotriazinyl-beta cyclodextrin and dyeing behavior in Advanced in chemical for textile polymers – Application and quality Assurance (ACTPAQ 2011) in PSG College of Technology, Coimbatore on 17-18<sup>th</sup> February 2011.

72. K. Ramanujam, S.Selvam and **M. Sundrarajan**, biological application of TiO<sub>2</sub> nanoparticles with azadirachta indica leaves extracts treated cotton fabric in National Seminar on Application of nanotechnology in current Agricultural Practices, (NANO FARM- 2011) in Zakir Husain College, Ilayangudi on 09 - 10<sup>th</sup> February 2011.
73. P. Vigneshwaran, S. Selvam and **M. Sundrarajan**, Effect of antibacterial activity of tio<sub>2</sub> nanoparticles with ocimum tenuiflorum treated cotton in National seminar ion Application of nanotechnology in current Agricultural Practices (NANO FARM- 2011) in Zakir Husain College, Ilayangudi on 09-10<sup>th</sup> February 2011.
74. S. Yamuna, S.Selvam and **M. Sundrarajan**, Antibacterial behavior of TiO<sub>2</sub> nanoparticles with artemisia pallens treated cellulose, in National seminar ion Application of nanotechnology in current Agricultural Practices (NANO FARM- 2011) in Zakir Husain College, Ilayangudi on 09-10<sup>th</sup> February 2011.
75. S.Selvam, **M. Sundrarajan**, S.Ravikumar, Biological application of ZnO nanoparticles coated cotton fabric with ocimum tenuiflorum in National conference on nanotechnology: Application and its advantages in natural science in Manonmaniam Sundaranar University, Tirunelveli on 4-5<sup>th</sup> February 2011.
76. **M. Sundrarajan**, Participated in the National Workshop on Electroanalytical Techniques organized by Department of Industrial Chemistry, Alagappa University, Karaikudi on 11 -13<sup>th</sup> October 2010.

77. **M. Sundrarajan**, R. Rajiv Gandhi, S.Selvam and J Suresh, Antibacterial and dyeing properties of chitosan treated cotton fabric with natural parijataka dye in National conference on Bio prospecting of marine Resources with Special Reference to marine Natural products and drug discovery Department of Oceanography and Coastal Area Studies , Alagappa University, Karaikudi on 25-27<sup>th</sup> August 2010.
78. R. Rajiv Gandhi and **M. Sundrarajan**, Effect of Dye Uptake On Silk Natural And Synthetic Mordents With Nyctanthes Arbor – Tristis, National Conference On Recent Advances In Textile And Electrochemical Sciences, Alagappa University, Karaikudi on 4-5<sup>th</sup> December 2009.
79. **M. Sundrarajan**, H. Gurumallesh prabu, S. K. Kannan and J. Raja beryl, Bleaching of With Different Bleaching Agents, National Conference On Recent Advances In Textile And Electrochemical Sciences, Alagappa University, Karaikudi on 4-5<sup>th</sup> December 2009.
80. S. Selvam, **M. Sundrarajan** and M. Muthulakshmi, Dyeing of Cotton With Dichlorotriazine Dyes Using Eco-Friendly Materials, National Conference On Recent Advances In Textile And Electrochemical Sciences, Alagappa University, Karaikudi on 4-5<sup>th</sup> December 2009.
81. **M. Sundrarajan**, H. Gurumallesh prabu S. Selvam and S. Vigneshwaran, National Conference On Recent Advances In Textile And Electrochemical Sciences, Alagappa University, Karaikudi on 4-5<sup>th</sup> December 2009.

82. J. Suresh and **M. Sundrarajan**, Effect of Dye Uptake Chitosan and Nano Chitosan Modified Organic Cotton, National Conference On Recent Advances In Textile And Electrochemical Sciences, Alagappa University, Karaikudi on 4-5<sup>th</sup> December 2009.
83. **M. Sundrarajan** B. Rajarajeshwari, A. Rukmani and G.K. Geethu, Dyeing of Cotton With Monochlorotriazine Dyes Using Bio-Salt, National Conference on Recent Advances In Textile And Electrochemical Sciences, Alagappa University, Karaikudi on 4-5<sup>th</sup> December 2009.
84. R. Balaji, **M. Sundrarajan** and S. Gowri, Dyeing of Organic Cotton Fabric With Reactive Dyes, National Conference on Recent Advances In Textile And Electrochemical Sciences, Alagappa University, Karaikudi on 4-5<sup>th</sup> December 2009.
85. S. Gowri, **M. Sundrarajan** and N. Mani, Studies On The Performance of Flooded Lead Acid Cells With Tubular Positive Plates, National Conference on Recent Advances In Textile And Electrochemical Sciences, Alagappa University, Karaikudi on 4-5<sup>th</sup> December 2009.
86. **M. Sundrarajan**, Participated in the Ninth conference on Science Forum organized by Alagappa University, Karaikudi on 11 – 13<sup>th</sup> September 2009.
87. **M. Sundrarajan**, H. Gurumullesh prabu and S. Selvam, Effect of Modification on Cellulose Using Biomaterial, UGC Sponsored National Conference in Recent Advances in Materials Science, Sree Sevugan Annamalai College, Devakottai on 21- 22<sup>th</sup> August 2009.

88. **M. Sundrarajan**, Participated in the National Workshop on Green Process Techniques for Industrial Application (GREPTIA – 2009) organized by Department of Industrial Chemistry, Alagappa University, Karaikudi on 21- 22<sup>nd</sup> March 2009.
89. **M. Sundrarajan**, S. Vigneshwaran, S. Senthil and J. Raja Beryl, Detection of Organic Compounds From Moringa Olifera Using Gas Chromatography And Mass Spectroscopy, National Seminar in Recent Advances in Textile And Electrochemical Sciences, Alagappa University, Karaikudi on 19-20<sup>th</sup> December 2008.
90. **M. Sundrarajan**, R. Balaji, K. Shanmuga priya, and A. Malairaju, Dyeing of Cotton With Reactive Low Salt Dyes, National Seminar in Recent Advances in Textile And Electrochemical Sciences, Alagappa University, Karaikudi on 19-20<sup>th</sup> December 2008.
91. **M. Sundrarajan**, S. Kirthika, A. Seetha Lakshmi, R. Rajivgandhi and H. Gurumallesh prabu, Dyeing of Cotton And Silk Fabrics With Nyctanthes Arbor – Tristis, National Seminar in Recent Advances in Textile And Electrochemical Sciences, Alagappa University, Karaikudi on 19-20<sup>th</sup> December 2008.
92. **M. Sundrarajan**, S. Selvam, P. Thamayanthi and M. Sridevi, Dyeing of Cotton With Hot Brand Reactive Dyes Using Eco-Friendly Salt, National Seminar in Recent Advances in Textile And Electrochemical Sciences, Alagappa University, Karaikudi on 19-20<sup>th</sup> December 2008.
93. **M. Sundrarajan**, A. Rukmanai, S. Selvam and H. Gurumallesh prabu, Eco-Friendly Modification and Dyeing Behaviour of Cotton Fabric, National Seminar in Recent

Advances in Textile And Electrochemical Sciences, Alagappa University, Karaikudi on 19-20<sup>th</sup> December 2008.

94. **M. Sundrarajan**, Participated in the QIP Short Term Training programme on “Recent Advances in Environment, Safety and Energy Management organized by Department of Chemical Engineering, National Institute of Technology, Tiruchirappalli on 5-9<sup>th</sup> February 2007.
95. **M. Sundrarajan** presented paper in the “National level Biological Congress on Biotechnology – A Global Perspective” organized by Department of Biological Science, Muthayammal College of Arts and Science, Rasipuram on 6 -7<sup>th</sup> January 2006.
96. H.Gurumallesh Prabu and **M. Sundrarajan**, Comparative study on dyeing of cotton with natural dye in the National seminar on recent trends in materials science organized by Alagappa University, Karaikudi on 3<sup>rd</sup> May 1999.
97. H.Gurumallesh prabu, P.Manisankar, G.Selvanathan, **M. Sundrarajan** and G.Narayan, Basic and arylamine form in banned dyes (a computer approach) in the National Seminar on Computational Chemistry (COMPSEM –99) organized by Sri.Vyassa N.S.S. College, Thrissur, Kerala on 9-10<sup>th</sup> March 1999.
98. H.Gurumallesh prabu, R.D.Thiyagarajan and **M.Sundrarajan**, Study of effluent containing sea weeds in the Seminar on Modern methods of treatment of salinity in sea water & corrosion studies organized by Khadir.M.College, Adirampattinam on 3-4<sup>th</sup> March 1999.

99. H.Gurumallesh prabu, AR.Kumar and **M. Sundrarajan**, Ultrasound application in dyeing of cotton with direct dye in the National Workshop on Physical Ultrasonics organized by St.Joseph College, Trichy on 27<sup>th</sup> February 1999.
100. H.Gurumallesh Prabu, S.Ramamoorthy, **M. Sundrarajan**, R.Shanmuganathan and M.Vijayalakshmi, Studies on colour removal by fly ash in the National Seminar on emerging trends in electrochemical textile and polymer Industries organized by Alagappa University, Karaikudi on 22-23<sup>rd</sup> April 1996.
101. H.Gurumallesh Prabu and **M. Sundrarajan**, Dye effluent treatment using burnt rice husk in the National Seminar on emerging trends in electrochemical textile and polymer Industries organized by Alagappa University, Karaikudi on 22-23<sup>rd</sup> April 1996.
102. **M. Sundrarajan**, participated in the Symposium on Mathematical Application in Chemistry organized by Department of Industrial Chemistry, Alagappa University, Karaikudi on 7<sup>th</sup> April 1996.

### **RESEARCH PROJECTS**

<b>S. No.</b>	<b>Principal / Co- Investigator</b>	<b>Title</b>	<b>Period</b>	<b>Funding Agency</b>	<b>Amount Rs.(Lakhs)</b>	<b>Completed / Ongoing</b>
1	Principal Investigator	Studies on the effect of eco-friendly materials in textile	2010-2011	AURF	0.64	Completed
2	Principal Investigator	Physico-chemical studies on borewells water in Tirupur District	2010-2011	AURF	0.20	Completed

3	Principal Investigator	Source reduction of pollutants from textile effluent by Greener route	2010-2013	DST	19.33	Completed
4	Principal Investigator	Effective minimization of Pollution load in reactive dye bath using eco-friendly salt and ozonation	2010-2013	UGC	4.33	Completed

**RESEARCH OUT PUT DETAILS BY**

<b>GOOGLE SCHOLAR</b>	<b>SCOPUS</b>	<b>WOS</b>
<b>28</b>	<b>25</b>	<b>25</b>

**RESEARCH SUPERVISION / GUIDANCE**

<b>Program of Study</b>	<b>Completed</b>	<b>Submitted</b>	<b>On going</b>
<b>Ph.D.</b>	<b>13</b>	<b>01</b>	<b>04</b>
<b>M.Phil.</b>	<b>23</b>	<b>-</b>	<b>-</b>
<b>PG</b>	<b>69</b>	<b>-</b>	<b>05</b>
<b>UG / Others</b>	<b>06</b>	<b>-</b>	<b>-</b>

**ORIENTATION/REFRESHER / TRAINING COURSE ATTENDED**

<b>Name of the Course/ Summer School</b>	<b>Place</b>	<b>Duration</b>	<b>Sponsoring Agency</b>
Orientation Course	Pondicherry	19.08.2010 -15.09.2010	UGC-Academic Staff College, Pondicherry
Refresher Course	Madurai	12.07.2012 – 01.08.2012	UGC-Academic Staff College, Madurai
Refresher Course	Madurai	23.12.2014 – 12.01.2015	UGC-Academic Staff College, Madurai
Faculty Development Program	Karaikudi	06.01.2017 - 12.01.2017	Internal Quality Assurance Cell, Alagappa University, Karaikudi
Short Term Course	Coimbatore	04.12.2019 - 10.12.2019	UGC-HDRC – Bharathiar University, Coimbatore
Faculty Development Program	Anthra Pradesh	02.11.2020 - 07.11.2020	Koneru Lakshmaiah Education Foundation, Anthra Pradesh
Refresher Course	Tiruchirappalli	25.11.2020 - 08.12.2020	UGC-HRDC- Bharathidasan University, Tiruchirappalli
Refresher Course	Coimbatore	12.12.2020 - 23.12.2020	UGC-HRDC- Bharathiar University, Coimbatore

### **VPP ORGANIZED AND PARTICIPATED**

1	Department Coordinator for Village Placement Programme (VPP)	VPP organized for M.Sc chemistry Second year students, <b>Mathur</b>	2010
2	Department Coordinator for Village Placement Programme (VPP)	VPP organized for M.Sc chemistry Second year students, <b>Thiruvankudi</b>	2017

### **OVERSEAS EXPOSURE / VISITS**

Countries visited: 1. Malaysia

### **BOOK CHAPTERS PUBLISHED AND REVIEWED**

S.No.	Title	Author Name	Publisher	Year of Publication
1	Organic Chemistry- 2 Units	Dr. M. Sundrarajan	Course materials for M.Sc -DDE Program	2008
2	Applied chemistry - 2 Unit	Dr. M. Sundrarajan	Course materials for M.Sc -DDE Program	2008
3	Instrumental Methods of Analysis - 5 Units	Dr. M. Sundrarajan	Course materials for M.Sc -DDE Program	2008
4	Organic Chemistry - III	Dr. M. Sundrarajan	Course materials for M.Sc -DDE Program	2019
5	Organic Chemistry -I (Reviewed)	Dr. M. Sundrarajan	Course materials for M.Sc -DDE Program	2020

### **INVITED LECTURES AND CHAIRMANSHIPS**

1. **Special lecture** delivered entitled on “**Adverse effect of textile dye effluents in environment and treatment methods – An overview**” in the National seminar on Textile dye Effluents and its health impacts – A Biomedical Approach” organized by the Department of Microbiology, K.S.Rangasamy College of Arts & Science, Tiruchengode on 16<sup>th</sup> February 2012.

2. **Chairperson** of a Technical Session in the International conference on Frontier areas in chemical technology organized by Department of Industrial Chemistry, Alagappa University, Karaikudi on 22 – 24<sup>th</sup> March 2016.
3. **Special lecture** delivered entitled on “**Details of Patent filing**” in the Science campus, Alagappa University, Karaikudi on 13<sup>th</sup> February 2017.
4. **Special lecture** delivered entitled on “**Synthesis of nanomaterials by greener approach and their biological application**” in the international conference on Frontier areas of Nanomaterials” organized by the Department of Chemistry, Shri Sakthi Kailassh Women’s College, Salem on 14<sup>th</sup> July 2017.
5. **Co-Chairperson** of a Technical Session in the International conference on Frontier areas in chemical technology organized by Department of Industrial Chemistry, Alagappa University, Karaikudi on 21 –23<sup>rd</sup> March 2016.
6. **Chairperson** of a Technical Session in the International conference on Renewable Energy Science and Technology (ICREST – 2017) organized by Department of Energy Science, Alagappa University, Karaikudi on 10 – 11<sup>th</sup> March 2017.
7. **Chairperson** of a Technical Session in the International conference on Fronter areas in chemical technology organized by Department of Industrial Chemistry, Alagappa University, Karaikudi on 6 – 8<sup>th</sup> July 2017.
8. **Chairperson** of a Technical Session in the international conference on Frontier areas of Nanomaterials” organized by the Department of Chemistry, Shri Sakthi Kailassh Women’s College, Salem on 14<sup>th</sup> July 2017.
9. **Chairperson** of a Technical Session for Chemistry in the International conference on Humanities, Arts and Science organized by University of Putra Malaysia (UPM), Malaysia on 23 – 28<sup>th</sup> August 2018.
10. **Chairperson** of a Technical Session in the international conference on Nanomedicine organized by the School of Chemistry & Biotechnology, Madurai Kamaraj University, Madurai on 25-26<sup>th</sup> February 2019.

## **EVENTS ORGANIZED IN LEADING ROLES**

### **Number of Seminars / Conferences / Workshops / Events organized: 07**

1. National Seminar on Recent Advances in Textile and Electrochemical Science (RATES 2008); Department of Industrial Chemistry, Alagappa University, Karaikudi; December 19-20<sup>th</sup> 2008 - **Co-convener.**
2. National Conference on Recent Trends in Green Synthesis (RTGS-2011); Department of Industrial Chemistry, Alagappa University, Karaikudi; 5-6<sup>th</sup> August 2011 – **Convener.**
3. UGC Sponsored Workshop on “Chemistry – Our Environment, Our Life and Our Future” Department of Industrial Chemistry, Alagappa University, Karaikudi; 22-23<sup>rd</sup> December 2011- **Organizing Secretary.**
4. National Seminar on Recent Advances in Textile and Electrochemical Science (RATES 2012); Department of Industrial Chemistry, Alagappa University, Karaikudi; March 22-23<sup>rd</sup> 2012 - **Organizing Committee Member.**
5. International conference on Frontier areas in chemical technology organized by Department of Industrial Chemistry, Alagappa University, Karaikudi on 22 – 24<sup>th</sup> March 2016 - **Organizing Committee Member.**
6. International conference on Frontier areas in chemical technology organized by Department of Industrial Chemistry, Alagappa University, Karaikudi on 22 – 24<sup>th</sup> March 2017- **Organizing Committee Member.**
7. National conference on Frontier areas in chemical technology organized by Department of Industrial Chemistry, Alagappa University, Karaikudi on 22 – 23<sup>rd</sup> March 2018 – **Organizing Secretary.**

9. Organizer to Conduct the **MHRD-UGC Initiative Swatchhta Pakhwada 2020**, water conservation competition, Alagappa University, Karaikudi held on 16<sup>th</sup> January- 31<sup>st</sup> January 2020.

### **ADDITIONAL RESPONSIBILITIES**

1. First year practical In-charge, Dept. of Industrial Chemistry , Alagappa University (2008-till date)
2. Ragging Contact Person, Alagappa University (2008 to till date)
3. Library & Net Lab In charge, Dept. of Industrial Chemistry (2008-2011)
4. Research Colloquium Incharge, Dept. of Industrial Chemistry, Alagappa University (2013-2016)
5. Treasurer of Alumni, Dept. of Industrial Chemistry, Alagappa University (2018 – till date)
6. University representative – Director of Distance Education, Alagappa University (2008-till date)
7. Wet Lab In charge, Dept. of Industrial Chemistry, Alagappa University (2008 - till date)
8. Deputy warden, PG Men’s Hostel, Alagappa University (2009 – 2010)
9. Cultural Club Coordinator, Dept. of Industrial Chemistry, Alagappa University (2015 – 2016)
10. Squad Team, Affiliated College Examination, Alagappa University (2015 & 2017)
11. Joint Secretary, ALUFA, Alagappa University (2014 – 2016)
12. Judge for DST Inspire Science Exhibition, Alagappa Matriculation School, Karaikudi – 4 Times.
13. Industrial Visit Organizer, Dept. of Industrial Chemistry, Alagappa University
14. Evaluation in BE, M.Sc, M.Phil and Ph.D students (2006 –till date)
15. Member in M.Phil DDE viva - voce committee, Alagappa University
16. Journal Reviewer in International Journals from 2008 to till date
17. Guide cum – convener in Ph.D Doctoral Committee for 15 students in year 2008 to till date
18. Life member in The Science Congress Association at Kolkata from 2009
19. Special Invitee in the Board of studies in M. Sc Chemistry, Alagappa University
20. Member in Ph.D scholar selection committee in chemistry, Alagappa University
21. External examiner for the evaluation of 2 M.Phil Dissertation and viva-voce during the year 2008 and 2011.3