

SRM Valliammai Engineering College

(An Autonomous Institution)

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Department of Chemistry

Personal Details

Dr. S. G. Gunasekaran Name · Assistant Professor (O.G) **Designation: Educational Qualification:** M.Sc., Ph.D. **Experience:** 6.5 Years Novel Polymer polymer synthesis, nanocomposites, Thermosetting polymers, Area of Specialization: Materials chemistry, Nanomaterials, Environmental studies and applications Email ID: gunasekaransg.chemistry@valliammai.co.in



Educational Details				
S.No	Degree	Branch/Specialization	Institution / University	Year
1	B.Sc.,	Chemistry	Tiru.Vi.Ka. Government College, Tiruvarur, Tamilnadu, India	2006
2	M.Sc.,	Chemistry	Rajah Serfoji Government College, Thanjavur, Tamilnadu, India	2008
3	Ph.D.	Chemistry	Anna University, Chennai, India	2014

Professional Society Memberships

- 1. The Indian Science Congress Association: Life Member
- 2. The Indian Society for Technical Education: Life Member
- 3. International Association of Engineers: Life Member
- 4. Indian Academicians and Researchers Association: Life Member
- 5. Institute of Researchers: Life Member

Publication Details

Journals:

- V. Arivalagan, L. Devaraj Stephen, M. Meera, S.G. Gunasekaran, 'Carbazole Terminal Phenylene core Imine Skeletal Nanosilica reinforced Polybenzoxazine (nSiO₂/PBZ) Hybrid Nanocomposites', Journal of Polymer Research, vol. 28, 381, 2021 (Impact Factor:3.097)
- 2. **S.G. Gunasekaran**, L. Devaraj Stephen, V. Arivalagan, M. Soundarrajan, 'Structurally Designed Imine Skeletal Pyrenyl Pendant Pyridine Core Polybenzoxazine (nSiO₂/PBZ) Hybrid Polymer Nanocomposites', Asian Journal of Chemistry, vol. 33(4), 793-801, 2021 (Impact Factor:0.463)

- 3. P.Maheswari, **S.G.Gunasekaran**, L.Devaraj Stephen, 'Removal of arsenic, nitrate and fluoride by PEES/Nano- Silver Hybrid Membranes', Research Journal of Chemistry and Environment, vol. 25, 9, 2021 (Impact Factor:0.245)
- 4. V. Arivalagan, L. Devaraj Stephen, M. Soundarrajan, S.G. Gunasekaran, 'Phenyl Pendant Carbazole End Capped Pyridine Core Imine Skeletal Based Polybenzoxazine-Nanosilica (nSiO₂/PBZ) Hybrid Nanocomposites', International Research Journal of Engineering and Technology, vol. 08(1), 2119-2127, 2021 (Impact Factor:0.42)
- 5. L.Devaraj Stephen, **S.G. Gunasekaran**, M. Soundarrajan, 'Ion-Pair Formation of [Co^{III}(pn) ₂(Cl)(l)²⁺..l⁻] by Aqueous Organic Solvent medium Enhanced Photoreduction: A Perspective Regression Analysis', Asian journal of Chemistry, vol. 32, 139-1383, 2020 (Impact Factor:0.463)
- 6. M. Soundarrajan, L. Devaraj Stephen, V. Arivalagan, **S.G. Gunasekaran**, 'Nanotitania Reinforced Imine Skeletal Maleimido Terminal Phenylene Core Poly benzoxazine (nTiO₂) Nanocomposites', International Research Journal of Engineering and Technology, vol. 07, 866, 2020 (Impact Factor:0.42)
- 7. M. Soundarrajan, L. Devaraj Stephen, **S.G. Gunasekaran**, 'Design and Development of Novel Flexible Bismaleimide Toughened Multi-Walled Carbon Nanotube Reinforced Epoxy Nanocomposites', Rasayan Journal of Chemistry, vol. 12(1), 168-183, 2019 (Impact Factor:1.23)
- 8. L. Devaraj Stephen, **S.G. Gunasekaran**, G. Nalini, M. Soundarrajan, 'Thermal Reduction of Co^{III}(pn)₂Cl(L)²⁺-Fe^(II) Ions in Aqueous-Organic Solvent Medium via Outer-Sphere Electron Transfer Approach', Asian Journal of Chemistry, vol. 31(1), 191-198, 2019 (Impact Factor:0.463)
- S.G. Gunasekaran, L. Devaraj Stephen, M. Soundarrajan, 'Comparative Removal of Chromium Toxic Metal From Water Using Vermiculite Blended Chitosan Coated Carbon Biopolymer Composites', International Journal of Civil Engineering and Technology, vol. 9(2), 76-86, 2018 (Impact Factor:0.639)
- S.G. Gunasekaran, V. Arivalagan, M.Dharmendirakumar, 'Pyrenyl Pendent Siloxane Core Dendritic Skeletal Chain Extended Multi-Walled Carbon Nanotube Reinforced Hyper Branched Polyimide (MWCNT/PI) Nanocomposites', International Research Journal of Engineering and Technology, vol. 05(1), 1-11, 2018 (Impact Factor:0.42)
- 11. **S.G. Gunasekaran**, V. Arivalagan, L. Devaraj Stephen, 'Triaryl Pendant Pyridine core Hydroxyl Terminal Benzoxazine based Polybenzoxazine/ Silica (PBZ-SiO₂) Hybrid Nanocomposites', Journal of Nanoscience and Nanotechnology, vol. 17(8), 5271-5283, 2017 (Impact Factor:1.354)
- 12. **S.G. Gunasekaran**, M.Dharmendirakumar, 'Maleimido Terminal Triaryl Pyridine core skeletal Modified Benzoxazine/Cyanate Ester co-cured Polymer (PBZ/CE) Hybrid blends', International Journal for Scientific Research and Development, vol. 4(4), 436-443, 2016 (Impact Factor:4.396)
- 13. **S.G.Gunasekaran**, K. Rajakumar, M.Dharmendirakumar, 'Organo Modified MWCNT Reinforced Triaryl Pyridine Core Polybenzoxazine (MWCNT/PBZ) Nanocomposites', International Journal of Nanoscience, vol. 14 (5&6), 1550021-1550033, 2015 (Impact Factor:0.68)
- S.G. Gunasekaran, K. Rajakumar, M. Alagar, M.Dharmendirakumar, 'Design and Development of Mesoporous Silica Reinforced Skeletal Modified Triaryl Pyridine Core Based Polybenzoxazine (SBA-15/PBZ) Nanocomposites', International Journal of Plastics Technology, vol. 19(2), 309-332, 2015 (Impact Factor:1.167)

- 15. **S.G. Gunasekaran**, K. Rajakumar, M.Dharmendirakumar, 'Nanosized Silica Reinforced Maleimido Terminal Triaryl Pyridine Core Polybenzoxazine (nSiO₂/PBZ) Nanocomposites', Polymer-Plastics Technology and Materials, (Polymer-Plastics Technology and Engineering), vol. 54(10), 989-1001, 2014 (Impact Factor:1.481)
- 16. **S.G. Gunasekaran**, M.Dharmendirakumar, 'Siloxane Core Modified Organo Soluble Novel Polyimide/Multi-Walled Carbon Nanotube Nanocomposites', Polymer-Plastics Technology and Materials (Polymer-Plastics Technology and Engineering), vol. 53(9), 903-916, 2014 (Impact Factor:1.481)
- 17. S.G. Gunasekaran, K. Rajakumar, M. Alagar, M.Dharmendirakumar, 'Siloxane Core Dianhydride Modified Ether Linked Cyclohexyl Diamine Based Multi-Walled Carbon Nanotube Reinforced Polyimide (MWCNT/PI) Nanocomposites', Journal of Polymer Research, vol. 21(1), 342-351, 2014 (Impact Factor:3.097)
- 18. **S.G. Gunasekaran**, M.Dharmendirakumar, 'Carboxyl-Tailed Ionic Liquid Promoted Aqueous Dispersion of Multi-Walled Carbon Nanotubes ', High Performance Polymers, vol. 26(3), 274-282, 2014 (Impact Factor:2.161)
- 19. **S.G. Gunasekaran**, S. Devaraju, M. Alagar, M.Dharmendirakumar, 'Studies on Synthesis and Characterization of Multi-Walled Carbon Nanotube-Reinforced Polyimide Nanocomposites Based on a Siloxane-Modified Anhydride', High Performance Polymers, vol. 26(1), 43-51, 2014 (Impact Factor:2.161)
- 20. R. Padhma Priya, **S.G. Gunasekaran**, M.Dharmendirakumar, 'Design and Development of Allyl Terminal Triaryl Pyridine Core Skeletal Modified Benzoxazines Based Polybenzoxazine-Silica (PBZ-SiO₂) Hybrid Nanocomposites', Journal of Nanoscience and Nanotechnology, vol. 15(9), 9505-9519, 2015 (Impact Factor:1.354)
- 21. R. Padhma Priya, **S.G. Gunasekaran**, M.Dharmendirakumar, 'Phthalide Cardo Chain Extended Siloxane Core Skeletal Modified Polyimide/Multi-Walled Carbon Nanotube Nanocomposites', Journal of Nanoscience and Nanotechnology, vol. 15(9), 6739-6746, 2015 (Impact Factor:1.354)
- 22. C. Dulcy Evangelin, **S.G. Gunasekaran**, M.Dharmendirakumar, 'Preparation and Characterization of Chemically Modified Silk Cotton Hull Activated Carbon And Its Effects on Cd (II) Removal from Aqueous Solution', Bioremediation Journal, vol. 18(2), 81-92, 2014 (Impact Factor:1.724)
- 23. C. Dulcy Evangelin, **S.G. Gunasekaran**, M.Dharmendirakumar, 'Removal of Lead Ions from Aqueous Solutions by Adsorption onto Chemically Modified Silk Cotton Hulls by Different Oxidizing Agents', Asia-Pacific Journal of Chemical Engineering, vol. 8(1), 189-201, 2013 (Impact Factor:1.447)

Conferences:

- 1. **S.G.Gunasekaran,** M. Meera, V. Arivalagan, 'Multi-Walled Carbon Nanotube Reinforced Phenyl Pendant Pyridine Core Polybenzoxazine (MWCNT/PBZ) Nanocomposites', National Virtual Conference on Recent Advances in Materials Science (NVCRAMS) 2021 organized at St. Peter's Institute of Higher Education and Research, Chennai held on 7th October 2021.
- V. Arivalagan, M. Meera, L. Devaraj Stephen, S. G. Gunasekaran, Dielectric and thermal studies of arene based imine skeletal nanotitania reinforced polybenzoxazine nano composites', National Virtual Conference on Recent Advances in Materials Science (NVCRAMS) 2021 organized at St. Peter's

- Institute of Higher Education and Research, Chennai held on 7th October 2021.
- 3. M. Meera, V. Arivalagan, **S. G. Gunasekaran**, 'Nanosilica Reinforced Pyrenyl Pendent Pyridine core Imine Skeletal Polybenzoxazine (nSiO₂/PBZ) Hybrid Nanocomposites', National Virtual Conference on Recent Advances in Materials Science (NVCRAMS) 2021 organized at St. Peter's Institute of Higher Education and Research, Chennai held on 7th October 2021.
- 4. **S.G.Gunasekaran,** M. Meera, V. Arivalagan, 'Nanosilica Reinforced Maleimido Terminal Pyrenyl Pendant Pyridine Core Polybenzoxazine (nSiO₂/PBZ) Nanocomposites', International Virtual Conference on Chemical Research for Sustainable Development (ICCRSD-2021) organized by SRM Institute of Science and Technology, Ramapuram, Chennai during 24-26th September 2021.
- 5. M. Meera, V. Arivalagan, S. G. Gunasekaran, 'Nanotitania Reinforced Maleimido Terminal Phthalide Cardo Chain Extended Imine Skeletal Polybenzoxazine (nTiO₂/PBZ) Hybrid Nanocomposites', International Virtual Conference on Chemical Research for Sustainable Development (ICCRSD-2021) organized by SRM Institute of Science and Technology, Ramapuram, Chennai during 24-26th September 2021.
- 6. V. Arivalagan, M. Meera, L. Devaraj Stephen, S. G. Gunasekaran, 'Synthesis and Thermal Studies of Imine Skeletal Nanotitania Reinforced Polybenzoxazine Nano Composites', International Virtual Conference on Chemical Research for Sustainable Development (ICCRSD-2021) organized by SRM Institute of Science and Technology, Ramapuram, Chennai during 24-26th September 2021.
- 7. L. Devaraj Stephen, **S.G. Gunasekaran**, M. Soundarrajan, 'A Homogenous Molecular System for Co^{III}(Tn)₂Cl(L)²⁺/Nm-TiO₂ under Visible-Light Irradiation in Binary Solvent Mixtures', International Virtual Conference on Chemical Research for Sustainable Development (ICCRSD-2021) organized by SRM Institute of Science and Technology, Ramapuram, Chennai during 24-26th September 2021.
- 8. M. Soundarrajan, **S. G. Gunasekaran,** L. Devaraj Stephen, 'The Role of Contact Time of Adsorbent in the Adsorptive Removal of Toxic Metals (Cd²⁺ And Cr⁶⁺) From Waste Water by Chitosan Coated Carbon Biosorbent', International Virtual Conference on Chemical Research for Sustainable Development (ICCRSD-2021) organized by SRM Institute of Science and Technology, Ramapuram, Chennai during 24-26th September 2021.
- S.G.Gunasekaran, L. Devaraj Stephen, P. Maheswari, M. Meera, V. Arivalagan, 'Design and Development of Multi-Walled Carbon Nanotube reinforced Pyridine Core based Polybenzoxazine (MWCNT-PBZ) Nanocomposites', International e-Conference on Advanced Materials (ICOAM-2021) organized by J. P. College of Arts and Science, Tenkasi during 24-26th September 2021.
- 10. V. Arivalagan, M. Meera, L. Devaraj Stephen, S. G. Gunasekaran, 'Arene Based Imine Skeletal Nanotitania Reinforced Polybenzoxazine (nTiO₂/PBZ) Nano Composites', International e-Conference on Advanced Materials (ICOAM-2021) organized by J. P. College of Arts and Science, Tenkasi during 24-26th September 2021.
- 11. M. Meera, V. Arivalagan, T. Amirthavarshini, **S.G. Gunasekaran**, 'Nanosilica reinforced Maleimido terminal Phthalide Cardo chain Extended Imine skeletal polybenzoxazine (nSiO₂/PBZ) hybrid nanocomposites', International e-Conference on Advanced Materials (ICOAM-2021) organized by J. P. College of Arts and Science, Tenkasi during 24-26th September 2021.

- 12. L. Devaraj Stephen, **S.G. Gunasekaran**, V. Arivalagan, M. Meera, 'Visible Light driven Photocatalysis in Co^{III}(pn)₂Cl(L)²⁺/nm-TiO₂ systems with Binary Solvent Mixtures', International e-Conference on Advanced Materials (ICOAM-2021) organized by J. P. College of Arts and Science, Tenkasi during 24-26th September 2021.
- 13. M. Soundarrajan, L. Devaraj Stephen, **S. G. Gunasekaran**, 'Effect of Adsorbent Dosage in the Adsorptive Removal of Toxic Metals (Cd²⁺ and Cr⁶⁺) from Waste Water by Chitosan Coated Carbon Biosorbent', International e-Conference on Advanced Materials (ICOAM-2021) organized by J. P. College of Arts and Science, Tenkasi during 24-26th September 2021.
- 14. S.G.Gunasekaran, M. Meera, V. Arivalagan, 'Structurally Designed Nanotitania Reinforced Imine Skeletal Maleimido Terminal Phenylene Core Polybenzoxazine (nTiO₂/PBZ) Nanocomposites', International Conference on Recent Innovations in Science, Engineering & Technology-ICRISET-2021' organized by from Jeppiaar Institute of Technology, held during 30/07/2021 to 31/07/2021.
- 15. M. Meera, V. Arivalagan, **S. G. Gunasekaran**, 'Nanotitania reinforced Thiophenyl Pendent pyridine core Imine skeletal Polybenzoxazine (nTiO₂/PBZ) hybrid nanoccomposites', International Conference on Recent Innovations in Science, Engineering & Technology-ICRISET-2021' organized by from Jeppiaar Institute of Technology, held during 30/07/2021 to 31/07/2021.
- 16. L. Devaraj Stephen, **S.G. Gunasekaran**, 'Chelation Precipitation Process with Photoreduction of Co^{III}(pn)₂Cl(L)²⁺ for Heavy Metal Complexes in Wastewater Treatment-A related Complex Matrices', International Conference on Recent Innovations in Science, Engineering & Technology-ICRISET-2021' organized by from Jeppiaar Institute of Technology, held during 30/07/2021 to 31/07/2021
- 17. **S.G.Gunasekaran**, M. Meera, L. Devaraj Stephen, V. Arivalagan, 'Nanosilica reinforced Pyrenyl Pendant Pyridine Core Imine Skeletal Polybenzoxazine (nSiO₂/PBZ) Hybrid Nanocomposites', International Conference on Current Trends in Material Science and Technology (CTMST-2021) organized by Nehru Institute of Technology, held on 26th July 2021.
- 18. V. Arivalagan, M. Meera, **S. G. Gunasekaran**, 'Imine Linked Phenyl Based Polymers and Nanosilica Reinforced Polybenzoxazine (nSiO₂/PBZ)Nano Composites', International Conference on Current Trends in Material Science and Technology (CTMST-2021) organized by Nehru Institute of Technology, held on 26th July 2021.
- 19. M. Meera, V. Arivalagan, S. G. Gunasekaran, 'Multi-Walled Carbon Nanotube Reinforced Pyridine Core Phenyl Pendent Polyimide (MWCNT/PI) Nanocomposites', International Conference on Current Trends in Material Science and Technology (CTMST-2021) organized by Nehru Institute of Technology, held on 26th July 2021.
- 20. L. Devaraj Stephen, **S.G. Gunasekaran**, 'Photocatalysis in Co^{III}(Tn)₂CI(L)²⁺ on multifunctional amorphous TiO2 suspensions in binary solvent mixtures under visible light', International Conference on Current Trends in Material Science and Technology (CTMST-2021) organized by Nehru Institute of Technology, held on 26th July 2021.
- 21. **S.G.Gunasekaran**, M. Meera, L. Devaraj Stephen, V. Arivalagan, 'Multi-Walled Carbon Nanotube reinforced Maleimido Terminal Phenylene Core Imine Skeletal Based Polybenzoxazine (MWCNT/PBZ)

- Hybrid Nanocomposites', 'International Virtual Conference on Advances in Chemistry and Materials (ICCM-2021)' organized at Saveetha Engineering College, held during 21/07/2021 to 22/07/2021.
- 22. V. Arivalagan, M. Meera, **S. G. Gunasekaran**, 'Nanotitania Reinforced Imine Skeletal Phenyl Based Polybenzoxazine (nTiO₂ /PBZ) Nano Composites', 'International Virtual Conference on Advances in Chemistry and Materials (ICCM-2021)' organized at Saveetha Engineering College, held during 21/07/2021 to 22/07/2021.
- 23. M. Meera, V. Arivalagan, **S. G. Gunasekaran**, 'Nanosilica reinforced Thiophenyl Pendent pyridine core Imine skeletal Polybenzoxazine (nSiO₂/PBZ) hybrid Nanocomposites', 'International Virtual Conference on Advances in Chemistry and Materials (ICCM-2021)' organized at Saveetha Engineering College, held during 21/07/2021 to 22/07/2021.
- 24. L. Devaraj Stephen, **S.G. Gunasekaran**, 'Surface and Interface Control of the Metal Centered Co^{III}(tn)₂CI(L)²⁺ with nm-TiO₂ in Binary Solvent Mixtures-A Visible Light Driven Photocatalysis', 'International Virtual Conference on Advances in Chemistry and Materials (ICCM-2021)' organized at Saveetha Engineering College, held during 21/07/2021 to 22/07/2021.
- 25. **S.G.Gunasekaran**, M. Meera, V. Arivalagan, 'Carbazole Terminal Pyrenyl Pendant Pyridine Core Imine Skeletal Based Polybenzoxazine-Nanosilica (nSiO₂/PBZ) Hybrid Nanocomposites', International e-Conference on Developments in Chemical, Biological and Environmental Sciences (DCBES-2021) organized by GITAM (Deemed to be University, during 28-30th June 2021.
- 26. V. Arivalagan, M. Meera, **S. G. Gunasekaran**, 'Synthesis, Characterisation and Studies on Arene Based Imine Skeletal Polybenzoxazine and Nanosilica Reinforced Polybenzoxazine (nSiO₂/PBZ) Nano Composites', International e-Conference on Developments in Chemical, Biological and Environmental Sciences (DCBES-2021) organized by GITAM (Deemed to be University, during 28-30th June 2021.
- 27. M. Meera, V. Arivalagan, **S. G. Gunasekaran**, 'Dielectric Materials Based on Nanotitanium Reinforced Imine Skeletal Polyimide (nTiO₂/PI) Nano Composites', International e-Conference on Developments in Chemical, Biological and Environmental Sciences (DCBES-2021) organized by GITAM (Deemed to be University, during 28-30th June 2021
- 28. **S. G. Gunasekaran**, V. Arivalagan, M. Meera, 'Maleimido Terminal Phenylene Core Nanotitania Reinforced Polybenzoxazine (nTIO₂/PBZ)Nanocomposites', 2nd International Conference on Smart Automation in Computer, Electrical, Electronics and Communication Engineering (ICSA 2021) organized at SRM Valliammai Engineering College, Kattankulathur held on 10th April 2021.
- 29. V. Arivalagan, M. Meera, **S. G. Gunasekaran**, 'Carbazole Terminal Pyridine Core Nanosilica Reinforced Polybenzoxazine (nSiO₂/PBZ) Hybrid Nanocomposites', 2nd International Conference on Smart Automation in Computer, Electrical, Electronics and Communication Engineering (ICSA 2021) organized at SRM Valliammai Engineering College, Kattankulathur held on 10th April 2021.
- 30. M. Meera, V. Arivalagan, **S. G. Gunasekaran** Dielectric Materials Based On Nanosilica Reinforced Imine Skeletal Polyimide (nSiO₂/PI) Nano Composites', 2nd International Conference on Smart Automation in Computer, Electrical, Electronics and Communication Engineering (ICSA 2021) organized at SRM Valliammai Engineering College, Kattankulathur held on 10th April 2021.
- 31. S.G.Gunasekaran, L. Devaraj Stephen, V. Arivalagan, M. Soundarrajan, 'Carbazole Terminal

- Phenylene Core Imine Skeletal Nanosilica Reinforced Polybenzoxazine (nSiO₂/PBZ) Hybrid Nanocomposites', International Conference on Nanoscience and Nanotechnology (ICONN 2021) organized at SRM Institute of Science and Technology, Kattankulathur held during 1-3 Feb 2021.
- 32. M. Meera, V. Arivalagan, S. G. Gunasekaran, 'Cardanol pendent thiophenyl end capped Imine skeletal MWCNT reinforced polyimide (MWCNT/PI) Nanocomposites from Cashew nut shell liquid (CNSL)', International Conference on Nanoscience and Nanotechnology (ICONN 2021) organized at SRM Institute of Science and Technology, Kattankulathur held during 1-3 Feb 2021.
- 33. **S. G. Gunasekaran**, V. Arivalagan, M. Meera, 'Nanotitania Reinforced Imine Skeletal Polybenzoxazine (nTiO₂/PBZ) Nanocomposites', International Virtual Conference on Advances in Chemical Sciences-2020 organized at Easwari Engineering College, Chennai held on 13th & 14th August 2020.
- 34. V. Arivalagan, M. Meera, **S. G. Gunasekaran**, 'Dispersion Studies of Nanosilica Reinforced Imine Skeletal Polybenzoxazine (nSiO₂/PBZ) Nano Composites', International Virtual Conference on Advances in Chemical Sciences-2020 organized at Easwari Engineering College, Chennai held on 13th & 14th August 2020.
- 35. M. Meera, V. Arivalagan, **S. G. Gunasekaran,** 'Design and development of Polybenzoxazine reinforced Cardanol pendent Thiophenyl end capped Imine skeletal Titanium dioxide (PBZ/TiO₂) Nanocomposites', International Virtual Conference on Advances in Chemical Sciences-2020 organized at Easwari Engineering College, Chennai held on 13th & 14th August 2020.
- 36. **S. G. Gunasekaran**, V. Arivalagan, M. Meera, 'Dispersion Studies of Imine Skeletal Arene Based Nanotitania Reinforced Polybenzoxazine (nTiO₂/PBZ) Nano Composites', International Web Conference on Recent Trends In Scientific Research, organized at Dr Ambedkar Government Arts College, Chennai, held during 3-4 August 2020.
- 37. V. Arivalagan, M. Meera, **S. G. Gunasekaran**, 'Imine Skeletal Arene Based Polymers and Nanosilica Reinforced Polybenzoxazine (nSiO₂/PBZ) Nano composites', International Web Conference on Recent Trends In Scientific Research, organized at Dr Ambedkar Government Arts College, Chennai, held during 3-4 August 2020.
- 38. M. Meera, V. Arivalagan, **S. G. Gunasekaran**, 'Cardanol Pendant Aromatic Diamine End Capped MWCNT Reinforced Polyimide (MWCNT/PI) Nanocomposites from Cashew Nut Wastes', International Web Conference on Recent Trends In Scientific Research, organized at Dr Ambedkar Government Arts College, Chennai, held during 3-4 August 2020.
- 39. **S. G. Gunasekaran**, V. Arivalagan, M. Meera, 'Carbazole Pendent Cyanate Ester co-cured skeletal modified Maleimide End capped Benzoxazine Hybrid Blend', International Conference on Recent Innovations in Science, Engineering and Technology (ICRISET) organized at Jeppiaar Institute of Technology, held during 24-25 July 2020.
- 40. V. Arivalagan, M. Meera, **S. G. Gunasekaran**, 'Nanosilica Reinforced Imine Skeletal Arene Based Polybenzoxazine (nSiO₂/PBZ) Nano Composites', International Conference on Recent Innovations in Science, Engineering and Technology (ICRISET) organized at Jeppiaar Institute of Technology, held during 24-25 July 2020.
- 41. M. Meera, V. Arivalagan, S. G. Gunasekaran, 'Multi-Walled Carbon Nanotube reinforced Cardanol

- pendent Thiophenyl end capped Imine skeletal Polybenzoxazine (MWCNT/PBZ) Nanocomposites from Cashewnut Shell Liquid', International Conference on Recent Innovations in Science, Engineering and Technology (ICRISET) organized at Jeppiaar Institute of Technology, held during 24-25 July 2020.
- 42. T. Amithavarshini, M. Meera, V. Arivalagan, S. G. Gunasekaran, 'Cardanol Pendent Aromatic Diamine End Capped Imine Skeletal Boron Phosphate Reinforced Polyimide (Bpo4 /Pi) Nano Composites From Cashew Nut Wastes', International Conference on Recent Innovations in Science, Engineering and Technology (ICRISET) organized at Jeppiaar Institute of Technology, held during 24-25 July 2020.
- 43. L. Devaraj Stephen, **S.G.Gunasekaran**, 'The Effects of Binary Solvent Interaction on Co^{III}(tn)₂CI(L)²⁺ with Visible-light Irradiated Titania Photocatalyst', International Conference on Recent Innovations in Science, Engineering and Technology (ICRISET) organized at Jeppiaar Institute of Technology, held during 24-25 July 2020.
- 44. **S. G. Gunasekaran** 'Dispersion of Multi-Wall Carbon Nanotubes by a Carboxyl-Tailed Ionic Liquid in Aqueous Solution', International Conference on Innovative Research In Chemical Sciences (IRCS 2020), SRM Institute of Science and Technology, Chennai, held during 29-30 June 2020.
- 45. **S. G. Gunasekaran**, L. Devaraj Stephen, M. Meera, V. Arivalagan, Nanotitania Reinforced Imine Skeletal Maleimido Terminal Phenylene Core Polybenzoxazine (nTiO₂/PBZ) Nanocomposites', International Conference on the Web on Scope of Research in Science Post Covid-19, organized at Bharathi Women's College (Autonomous) Chennai, held on 21st June 2020.
- 46. **S. G. Gunasekaran**, V. Arivalagan, 'Nanosilica reinforced Pyrenyl Pendant core Imine Skeletal Polybenzoxazine (*n*SiO₂/PBZ) Nanocomposites', International Conference on 'Emerging Trends in Materials for Energy and Biological Applications' (ICEMEBA 2020) organized at M. Kumarsamy College of Engineering, Karur, held on 7th March 2020.
- 47. V. Arivalagan, **S. G. Gunasekaran**, 'Structurally Designed Pyrenyl core Ether linked Nanosilica reinforced Polybenzoxazine (*n*SiO₂/PBZ) Nanocomposites as Water Repellent Coatings', International Conference on 'Emerging Trends in Materials for Energy and Biological Applications' (ICEMEBA 2020) organized at M. Kumarsamy College of Engineering, Karur, held on 7th March 2020.
- 48. M. Meera, **S. G. Gunasekaran**, 'Cardanol Pendent Thiophenyl End Capped Imine Skeletal Nanotitania Reinforced Polybenzoxazine (*n*TiO₂/PBZ) Nanocomposites from Cashewnut Wastes', International Conference on 'Emerging Trends in Materials for Energy and Biological Applications' (ICEMEBA 2020) organized at M. Kumarsamy College of Engineering, Karur, held on 7th March 2020
- 49. **S. G. Gunasekaran**, V. Arivalagan, 'Phenyl pendant core Imine skeletal MWCNT reinforced Phenylene based Polybenzoxazine (MWCNT/PBZ) Nanocomposites', National Conference on recent trends in chemistry of materials (NCRTCM'2019) organized at Bannari Amman Institute of Technology, Sathyamangalam, Erode Dt. held during 11-12 October 2019.
- 50. V. Arivalagan, **S. G. Gunasekaran**, 'Water Repellent Coatings from Structurally Designed Phenylene core Imine Skeletal Nanotitania reinforced Polybenzoxazine (nTiO₂/PBZ) Nanocomposites', National Conference on recent trends in chemistry of materials (NCRTCM'2019) organized at Bannari Amman Institute of Technology, Sathyamangalam, Erode Dt. held during 11-12 October 2019.
- 51. M. Meera, S. G. Gunasekaran, 'Design and Development of Pyrenyl Pendent Aromatic Diamine

- MWCNT reinforced Polyimide (MWCNT/PI) Nanocomposites', National Conference on recent trends in chemistry of materials (NCRTCM'2019) organized at Bannari Amman Institute of Technology, Sathyamangalam, Erode Dt. held during 11-12 October 2019.
- 52. **S. G. Gunasekaran**, V. Arivalagan, Nanosilica Reinforced Imine Skeletal Phenylene Based Polybenzoxazine (nSiO₂/PBZ) Nano composites', International Conference on recent Advances in Applied Chemical Sciences (ICRAACS'2019) organized at Sree Sevugan Annamalai College, Devakottai held during 6th September 2019.
- 53. V. Arivalagan, **S. G. Gunasekaran**, Ecofriendly Coatings using Aryl Pendant Pyrene core Imine Skeletal Nanosilica reinforced Polybenzoxazine (nSiO₂/PBZ) Nanocomposites', International Conference on recent Advances in Applied Chemical Sciences (ICRAACS'2019) organized at Sree Sevugan Annamalai College, Devakottai held during 6th September 2019.
- 54. M. Meera, **S. G. Gunasekaran**, Thiophenyl Pendent Cardanol End Capped Imine Skeletal Nanosilica Reinforced Polybenzoxazine (nSiO₂/PBZ) Nanocomposites', International Conference on recent Advances in Applied Chemical Sciences (ICRAACS'2019) organized at Sree Sevugan Annamalai College, Devakottai held during 6th September 2019.
- 55. **S. G. Gunasekaran**, V. Arivalagan, 'Ecofriendly Coatings using Aryl Pendant Pyrene core Imine linked Nanotitania reinforced Polybenzoxazine (nTiO₂/PBZ) Nanocomposites', International Conference on Sustainable Technologies for Industrial Hazardous Waste Management and Bioenergy organized at SRM University, Kattankulathur held during 7-9 August 2019.
- 56. V. Arivalagan, **S. G. Gunasekaran**, 'Water Repellent Coatings from Structurally Designed Phenylene core Imine linked Nanosilica reinforced Polybenzoxazine (nSiO₂/PBZ) Nanocomposites', International Conference on Sustainable Technologies for Industrial Hazardous Waste Management and Bioenergy organized at SRM University, Kattankulathur held during 7-9 August 2019.
- 57. M. Meera, **S. G. Gunasekaran**, 'Cardanol Pendent Thiophenyl end capped Imine skeletal Nanosilica reinforced Polybenzoxazine (nSiO₂/PBZ) Nanocomposites from Cashew nut Wastes', International Conference on Sustainable Technologies for Industrial Hazardous Waste Management and Bioenergy organized at SRM University, Kattankulathur held during 7-9 August 2019.
- 58. **S. G. Gunasekaran**, V. Arivalagan, 'Triaryl Pyridine Core Hydroxyl Terminal Benzoxazine based Polybenzoxazine-Silica Linked (PBZ-SiO₂) Hybrid Nanocomposites', National Conference on Recent Advances in Chemistry (RAC-19) organized at held during 4-5th Jan 2019.
- 59. V. Arivalagan, **S. G. Gunasekaran**, 'Aryl pendent Pyridine core Imine Linked Nanosilica Reinforced Polybenzoxazine Nanocomposites', National Conference on Recent Advances in Chemistry (RAC-19) organized at Anna University, Chennai held during 4-5th Jan 2019.
- 60. **S. G. Gunasekaran**, V. Arivalagan, M. Dharmendirakumar, 'Siloxane Core Dendritic Skeletal Chain Extended Multi-Walled Carbon Nanotube reinforced Hyperbranched Polyimide (MWCNT/PI) Nanocomposites', International Conference on the Green Chemistry for a Greener Planet (ICGCGP 2018) organized at Anna Adarsh College for Women, Chennai, held on 12th September 2018.
- 61. **S. G. Gunasekaran**, V. Arivalagan, M. Dharmendirakumar, 'Silica reinforced Pyrenyl Pendant Pyrene Core Hydroxyl Terminal Benzoxazine based Polybenzoxazine (PBZ-SiO₂) Nanocomposites', Adroit Conference on Emerging Trends in Chemistry (ACETIC 2K18) organized at SRR Engineering College,

- Chennai, held on 2nd August 2018.
- 62. **S. G. Gunasekaran**, V. Arivalagan, M. Dharmendira Kumar, 'Siloxane core dendritic skeletal chain modified multi-walled carbon nanotube reinforced hyper branched polyimide (MWCNT/PI) nanocomposites', 2nd International Conference on the Advances in New Materials (ICAN 2018) organized at University of Madras, Chennai held during 8-9thJune 2018.
- 63. **S. G. Gunasekaran**, V. Arivalagan, M. Dharmendira Kumar, 'Siloxane Core Dendritic Skeletal Pyrenyl Pendent Multi-Walled Carbon Nanotube Reinforced Hyperbranched Polyimide (MWCNT/PI) Nanocomposites', National Conference on Challenges In Energy Conversion and Environmental Applications (NCCEA 2018) organized at Bannari Amman Institute of Technology, Sathyamangalan, Erode Dt. held during 23-24th March 2018.
- 64. **S. G. Gunasekaran**, V. Arivalagan, L. Devaraj Stephen, M. Dharmendira Kumar, 'Cyanate ester cocured maleimido terminal pyrenyl pyridine core skeletal modified benzoxazine/polymer (PBZ/CE) hybrid blends', 4th International Conference on Nanoscience and Nanotechnology (ICONN 2017) organized at SRM University held during 9-11 August 2017.
- 65. **S. G. Gunasekaran**, V. Arivalagan, M. Dharmendira Kumar, 'Siloxane core dianhydride skeletal multi-walled carbon nanotube reinforced porous polyimide nanocomposites', 'National Conference on 'Advances in Functional Materials' organized at St. Joseph's College of Engineering, Chennai held on 5th August 2017.
- 66. S. G. Gunasekaran, Design and development of skeletal modified pyrenyl pendant core polybenzoxazine silica nanocomposites, International Conference on Energy, Environment and Advanced Materials for a Sustainable Future (ICEEAMSF-2017) organized at Kongu Engineering College, held during 23-24 May 2017.
- 67. **S. G. Gunasekaran**, V. Arivalagan, M. Dharmendira Kumar, 'Ultra Low-k Dielectric Mesoporous Silica reinforced Pyrenyl Pyridine core Polybenzoxazine (SBA-15/PBZ) Nanocomposites', 3rd National Seminar on the 'Concepts of Green Chemistry-2017'organized at Valliammai Engineering College, held on 27th March 2017.
- 68. **S. G. Gunasekaran**, V. Arivalagan, L. Devaraj Stephen, M. Dharmendira Kumar, 'Glycidyl functionalized Multi-Walled Carbon Nanotube Reinforced Pyridine Core Polybenzoxazine (MWCNT/PBZ) Nanocomposites', 3rd National Seminar on the 'Concepts of Green Chemistry-2017'organized at Valliammai Engineering College, held on 27th March 2017.
- 69. K. Rajakumar, **S. G. Gunasekaran** & M. Dharmendira Kumar, 2014, 'Highly efficient removal of heavy metal ions using carbon nanotubes doped conducting poly (aniline-co-4, 4'-diaminodiphenyl sulfone) nanocomposite', International conference on advances in new materials.
- 70. **S. G. Gunasekaran,** S. Devaraju, C. Dulcy Evangelin, M. Alagar & M. Dharmendirakumar, 2013, National conference on new frontiers in organic chemistry and process research, pp. 45.
- 71. S. G. Gunasekaran, S. Devaraju, A. Chandramohan, M. Alagar & M. Dharmendirakumar, 2013, 'Studies on synthesis of multi-wall carbon nanotube reinforced siloxane-dianhydride based polyimide nanocomposite for thermal applications', Second international workshop on advanced functional nanomaterials, pp. 48-49.

- 72. **S. G. Gunasekaran**, S. Devaraju, M. Selvi, M. Alagar & M. Dharmendirakumar, 2013, 'Synthesis and characterization of multi-walled carbon nanotube reinforced siloxane-dianhydride based polyimide nanocomposite for electrical applications', Advances in materials processing and characterization, pp. 416-422.
- 73. **S. G. Gunasekaran, S.** Devaraju, M. Selvi, M. Alagar & M. Dharmendirakumar, 2012, 'Synthesis and characterization of multi-walled carbon nanotube reinforced siloxane-dianhydride based polyimide nanocomposite for thermal applications', Third international conference on natural polymer, biopolymers, bio-materials, their composites, blends, IPNs, polyelectrolytes and gels: macro to nano scales, pp. 82.
- 74. D. Prasanna kumar, **S. G. Gunasekaran**, C. Dulcy Evangelin & M. Dharmendirakumar, 2012, 'International workshop and conference on Renewable energy and climate change', Enhancement of heavy metal ion removal efficiency of bio adsorbent by coating with conducting polymer.
- 75. M. Dharmendirakumar, **S. G. Gunasekaran**, A. Anand Prabu & K.J. Kim, 2013, 'Studies on siloxane dianhydride based polyimide nanocomposites for high temperature applications', Twenty-first international conference on polymer characterization-World forum on advanced materials, pp. 58.
- 76. S. G. Gunasekaran, 2011, Chennai Chemistry Conference-2011, IIT Madras.

Research and Development Details

- 1. No. of Research Projects Completed: NIL
- 2. No. of Patents Filed: 04
- 3. No. of Ph.D candidates guided/guiding: 03
- 4. No of Conferences Convened: 02

Other Particulars

- 1. No. of STTP/FDP Attended: 50
- 2. Guest Lecture Organised: 07
- 3. Research Recognition: Anna University Recognized Supervisor
- 4. Awards: 01 (Research Excellence Award 2021)
- 5. Others:
 - 1. NPTEL Online Courses:
 - a. Topper in NPTEL course conducted during Jan-Mar 2016
 - Elite award in NPTEL course conducted during Jul-Oct 2017, Jul-Oct 2018, Aug-Sep 2018, July-Oct 2019, Oct-2021
 - c. Certificate awarded during Jan-Mar 2016, Jul-Sep 2016, Jan-Mar 2017, July-Oct 2019, July-Oct 2021
 - 2. NITTT Online Course completed (NITTTR Chennai): 3 Modules
 - 3. Reviewer of reputed international journals likes Oriental Journal of Chemistry
 - 4. University Rank: 6th in B.Sc.,
 - 5. Gold Medalist & First Rank in M.Sc.,