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## **Last 5yrs Publications**

- 1. Nagaraju Pentela P. Murugan, **Sellamuthu N. Jaisankar**, Debasis Samanta, and Asit Baran Mandal, Immobilization of Ruthenium Benzylidene on Thermoresponsive Polymer: Methodology and Application, *J. Organomet. Chem.*, 778, 42-46, **2015**.
- 2. Gosala Radha, Debasis Samanta, Subramanian Balakumar, Asit Baran Mandal and **Sellamuthu N. Jaisankar**,\* Single-walled Carbon nanotubes decorated with polypyrrole-TiO2 nanocomposites, *J. Nanosci. Nanotechnol. 15, 3879-3886*, **2015.**
- 3. P. Murugan, Munusamy Krishnamurthy, **Sellamuthu N. Jaisankar**, Debasis Samanta, Asit Baran Mandal, Controlled Decoration of Surface with Macromolecules: Polymerization on Self-assembled Monolayer (SAM), *Chem. Soc. Rev.*, 44, 3212-3243, **2015**.
- 4. Sakar M., Bharathkumar S., Jayamani M., Balakumar S. **Sellamuthu N. Jaisankar**, Silver plasmons sensitized photocatalytic activity of bismuth ferrite (BiFeO3) nanoparticles, *J. Indian Chem. Soc.*, 92, 732-735, **2015.**
- 5. A. Jayakumar, N. Malarvizhi, B. Rajeswari, A. Murali, Debasis Samanta, P. Saravanan, C. Muralidharan, **Sellamuthu N. Jaisankar**,\* Synthesis and Characterization of Semi-Interpenetrating Polymer Network Based on Single-Walled Carbon Nanotubes, *Adv. Mater. Lett.* 6, 790-794, **2015**.
- 6. N. Malarvizhi, B. Rajeswari, Dhanasekaran Prakash and **Sellamuthu N Jaisankar**,\* Morphology and thermal properties of thermosetting polyurethane/single-walled carbon nanotube composites, *Graphene*, 3, 65-71, **2015**.
- 7. Adhigan Murali, Senthil A. Gurusamy-Thangavelu, **Sellamuthu N. Jaisankar**,\* and Asit Baran Mandal, Enhancement of physicochemical properties of polyurethane-perovskite nanocomposite via addition of nickel titanate nanoparticles, *RSC Adv.*, *5*, *102488-102494*, **2015.**
- 8. Bharathi Mariappan and **Sellamuthu N. Jaisankar**, Influence of styrene maleic anhydride compatibilizer on the properties of polyurethane carbon nanocomposites, *Adv. Compos. Lett.* 24, 137-142, **2015.**

- 9. Seena Joseph, Tushar S. Ambone, Abhijit V. Salvekar, **S. N. Jaisankar**, P. Saravanan E. Deenadayalan, Processing and characterization of waste leather based polycaprolactone biocomposites, *Polym. Composite* (DOI: 10.1002/pc.23891) (In Press **2015**).
- 10. Adhigan Murali, Neelamegan Haridharan, Pombala Suresh Babu, Sivalingam Jayaveni, **Sellamuthu N. Jaisankar**\*, Synthesis of Fluorophore Decorated Single-Walled Carbon Nanotubes for in-vitro Cytocompatibility, J. Nanosci. Nanotechnol. (Accepted **2016**).
- 11. M. Sakar, S. Balakumar, P. Saravanan, **Sellamuthu N. Jaisankar**, Electric field induced formation of one-dimensional bismuth ferrite (BiFeO3) nanostructures in electrospinning process, *Mater. Design.* 94, 487-495, **2016**.
- 12. Bharathi Mariappan and **Sellamuthu N Jaisankar**, Properties of polyurethane nanocomposite filaments for conductive textile applications, *J. Thermoplast. Compos. Mater.*, **2016**, DOI: 10.1177/0892705716632861.
- 13. Bharathi Mariappan and **Sellamuthu N Jaisankar**, Properties of polyurethane nanocomposite filaments for conductive textile applications, *J. Thermoplast. Compos. Mater.*, **2016**, DOI: 10.1177/0892705716632861.
- 14. M. Krishnamurthy, K. Krishnamoorthy, A. Arulkashmir, V. Raghavendra A. Murali, **Sellamuthu N. Jaisankar**, P. Murugan, Senthil A. G-T, A. Sultan Nasar, A. B. Mandal, Debasis Samanta, "Click" Polymerization: A Convenient Strategy to Prepare Designer Fullerene Materials, *Mater. Design.* 108, 34 41, **2016**
- 15. B. Rajeswari, N. Malarvizhi, E. Deenadayalan and **Sellamuthu N Jaisankar**\* Influences of functionalized nanoclays on morphology and mechanical properties of polyvinyl alcohol based composites by twin-screw extruder, *Polym. Plast. Technol. Eng.* 56, 883-888, 2017
- Dhanasekaran Prakash and Sellamuthu N. Jaisankar\* Synthesis and Characterization of Triphenylpyridine containing Azo-linked Polymer Materials, Adv. Mater. Lett. 2, 161-164, 2016
- 17. B. Rajeswari, N. Malarvizhi, E. Deenadayalan and **Sellamuthu N Jaisankar**\* Influences of functionalized nanoclays on morphology and mechanical properties of polyvinyl alcohol based composites by twin-screw extruder, *Polym. Plast. Technol. Eng.* 56, 883-888, **2017**.
- 18. Dhanasekaran Prakash, Adhigan Murali, and Sellamuthu N. Jaisankar\*, Synthesis and characterization of nitrogen-rich azo linked conjugated polymer materials. International. Int J Polym Anal Ch. (Accepted 2017. DOI: 10.1080/1023666X.2017.1324389).
- 19. Munusamy Krishnamurthy, P. Murugan, A. Murali, S. N. Jaisankar, A. B. Mandal, Debasis Samanta "Click" Polymer of Carbon Nanotubes for Superhydrophobic Glass and Leather, *Green Materials*, (Accepted 2017).
- 20. Krishna Prasad, Subbarao; Baral, Marlin; Murali, Adhigan; **Jaisankar, Sellamuthu**, Carbon nanotube reinforced polymer stabilized liquid crystal device: Lowered and thermally invariant threshold with accelerated dynamics, *ACS Applied Materials & Interfaces* 9(31), 26622-26629, **2017**.
- 21. Sholingur C. Ramkumar, Adhigan Murali, Govindarajan Preethi, Bangaru Chandrasekaran, Palanivel Saravanan, **Sellamuthu N. Jaisankar**\*, Polycarbodiimide and polyurethane cross-linkers for leather finishing, Leather and Footwear Journal, 17(4), 181-192, **2017**.

- 22. Adhigan Murali, Neelamegan Haridharan, Pombala Suresh Babu, Sivalingam Jayaveni, *Sellamuthu N. Jaisankar\**, *Synthesis of Fluorophore Decorated Single-Walled Carbon Nanotubes for in-vitro cytocompatibility, J. Nanosci. Nanotechnol. 18*, 959-966, 2018.
- 23. Senthil A. Gurusamy Thangavelu, A. Murali, M. Sharanya, **Sellamuthu N. Jaisankar**, Asit B. Mandal, Studies on biodegradable polyurethane-SWCNTs nanocomposite films by covalent approach: Physicochemical, electric and mechanical properties, *Appl. Surf. Sci.*, 449, 745-754, **2018**.
- 24. D. Samanta, P. Nagaraju, N. Duraipandy, N. S. Reddy, T. Paranthaman, M. S. Kiran, S. K. Das and S. N. Jaisankar, Microcapsule from Diverse Polyfunctional Materials: Synergic Interactions for Sharp Response by pH Change, New J. Chem., 42, 8366-8373, 2018.
- 25. I. P. Bincy, T.Srinivasan, S. N. Jaisankar, V. Ramkumar, Structure, growth and characterization of a new naphthalene family crystal for fluorescence and third order nonlinear optical application, , Solid State Sci. 89, 85-92, 2019.
- 26. Anoop V., S. Subramani, S. N. Jaisankar, C. Sohini, Mary N.L., Mechanical, dielectric and thermal properties of polydimethylsiloxane/ polysilsesquioxane nanocomposite for sealant application, J. Appl. Polym. Sci. (Accepted 2018, doi.org/10.1002/app.47228).
- 27. Dhanasekaran Prakash and *Sellamuthu N. Jaisankar\**, *Thermoplastic poly(urethane-thiourethane) triblock copolymers with SWCNTs composite, Diam. Relat. Mater.* 93, 34-41. **2019**.
- 28. K. V. Karthikeyan, S. Anandhi, V. Ramkumar, T. S. Shyju, **S. N. Jaisankar** and R Suriakarthick, Studies on nonlinear optical properties of a mixture of 4-nitroaniline-picric acid (2/1), Mater. Res. Express 6, 075105**2019**.
- 29. B.Rajeswari, N. Malarvizhi, Dhanasekaran Prakash and **Sellamuthu N. Jaisankar**\*, Viscoelastic, thermal and morphological properties of nanocomposites based on modified PVA using a twin-screw melt extrusion process J. Thermoplast. Compos. Mater.,**2019**, (doi.org/10.1177/0892705719832650).
- 30. Anoop V, Subramani Sankaraiah, **S. N. Jaisankar**, Sohini Chakraborty & Mary N.L, Enhanced mechanical, thermal and adhesion properties of polysilsesquioxane spheres reinforced epoxy nanocomposite adhesive, J. Adhes., **2019**, DOI: 10.1080/00218464.2019.162010