

List of Publications- Dr. N Nishad Fathima

1. Karunanidhi, A., David, P.S. and **Fathima, N.N.**, 2020. Electrospun keratin-polysulfone blend membranes for treatment of tannery effluents. *Water, Air, & Soil Pollution*, 231, pp.1-11.
2. Subramanian, B.T., Alla, J.P., Essomba, J.S. and Nishter, N.F., 2020. Non-fluorinated superhydrophobic spray coatings for oil-water separation applications: An eco-friendly approach. *Journal of Cleaner Production*, p.120693.
3. Tarannum, A., Lobo, N.P., Rao, J.R. and **Fathima, N.N.**, 2020. Are aqueous solutions of choline-based ionic liquid biocompatible cross-linkers for collagen?. *Journal of Molecular Liquids*, 303, p.112654.
4. Inbasekar, C. and **Fathima, N.N.**, 2020. Collagen stabilization using ionic liquid functionalised cerium oxide nanoparticle. *International Journal of Biological Macromolecules*, 147, pp.24-28.
5. Rasheeda, K., Samyuktha, D. and **Fathima, N.N.**, 2019. Self-association of type I collagen directed by thymoquinone through alteration of molecular forces. *International journal of biological macromolecules*, 140, pp.614-620.
6. Serge, E.J., Alla, J.P., Belibi, P.D.B., Mbadcam, K.J. and **Fathima, N.N.**, 2019. Clay/polymer nanocomposites as filler materials for leather. *Journal of Cleaner Production*, 237, p.117837.
7. Sathish, M., Subramanian, B., Raghava, J. and Fathima, N., 2019. Deciphering the Role of Individual Retanning Agents on Physical Properties of Leathers. *Journal of the American Leather Chemists Association*, 114(3).
8. Tarannum, A., Jonnalagadda, R.R. and Nishter, N.F., 2019. Stability of collagen in ionic liquids: Ion specific Hofmeister series effect. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 212, pp.343-348.
9. Rasheeda, K., Muvva, C. and **Fathima, N.N.**, 2019. Governing the Inhibition of Reconstituted Collagen Type I Assemblies Mediated Through Noncovalent Forces of (\pm)- α Lipoic Acid. *Langmuir*, 35(4), pp.980-989.
10. Selvaraj, S., Jeevan, V., Jonnalagadda, R.R. and **Fathima, N.N.**, 2019. Conversion of tannery solid waste to sound absorbing nanofibrous materials: A road to sustainability. *Journal of Cleaner Production*, 213, pp.375-383.

11. Selestin Raja, I., Thangam, R. and **Fathima, N.N.**, 2018. Polymeric micelle of a gelatin-oleyamine conjugate: a prominent drug delivery carrier for treating triple negative breast cancer cells. *ACS Applied Bio Materials*, 1(5), pp.1725-1734.
12. Selvaraj, S., Thangam, R. and **Fathima, N.N.**, 2018. Electrospinning of casein nanofibers with silver nanoparticles for potential biomedical applications. *International journal of biological macromolecules*, 120, pp.1674-1681.
13. Hemalatha, D., Kowsalya, S., Fathima, N., Sowmya, S. and Raghava, J., 2018. Natural Fibers Reinforced Chrome Shaving Composites for Sound Absorption Applications. *Journal of the American Leather Chemists Association*, 113(11).
14. Raja, I.S. and **Fathima, N.N.**, 2018. Gelatin–cerium oxide nanocomposite for enhanced excisional wound healing. *ACS Applied Bio Materials*, 1(2), pp.487-495.
15. Rasheeda, K. and **Fathima, N.N.**, 2018. Trigonelline hydrochloride: A promising inhibitor for type I collagen fibrillation. *Colloids and Surfaces B: Biointerfaces*, 170, pp.273-279.
16. Selvaraj, S., Duraipandy, N., Kiran, M.S. and **Fathima, N.N.**, 2018. Anti-oxidant enriched hybrid nanofibers: Effect on mechanical stability and biocompatibility. *International journal of biological macromolecules*, 117, pp.209-217.
17. Rasheeda, K., Bharathy, H. and **Fathima, N.N.**, 2018. Vanillic acid and syringic acid: Exceptionally robust aromatic moieties for inhibiting in vitro self-assembly of type I collagen. *International journal of biological macromolecules*, 113, pp.952-960.
18. Tarannum, A., Adams, A., Blümich, B. and **Fathima, N.N.**, 2018. Impact of ionic liquids on the structure and dynamics of collagen. *The Journal of Physical Chemistry B*, 122(3), pp.1060-1065.
19. Tarannum, A., Rao, J.R. and **Fathima, N.N.**, 2018. Choline-based amino acid ILs–collagen interaction: enunciating its role in stabilization/destabilization phenomena. *The Journal of Physical Chemistry B*, 122(3), pp.1145-1151.
20. Yuvaraj, P., Rao, J.R., **Fathima, N.N.**, Natchimuthu, N. and Mohan, R., 2018. Complete replacement of carbon black filler in rubber sole with CaO embedded activated carbon derived from tannery solid waste. *Journal of Cleaner Production*, 170, pp.446-450.
21. Velmurugan, P., Ganeshan, V., **Nishter, N.F.** and Jonnalagadda, R.R., 2017. Encapsulation of orange and lavender essential oils in chitosan nanospherical particles

- and its application in leather for aroma enrichment. *Surfaces and Interfaces*, 9, pp.124-132.
22. Alla, J.P., Rao, J.R. and **Fathima, N.N.**, 2017. Integrated depilation and fiber opening using aqueous solution of ionic liquid for leather processing. *ACS Sustainable Chemistry & Engineering*, 5(10), pp.8610-8618.
 23. Palani, Y., Rao Jonnalagadda, R. and **Fathima Nishter, N.**, 2017. Adsorption on activated carbon derived from tannery fleshing waste: Adsorption isotherms, thermodynamics, and kinetics. *Environmental Progress & Sustainable Energy*, 36(6), pp.1725-1733.
 24. Bharathy, H. and **Fathima, N.N.**, 2017. Exploiting oleuropein for inhibiting collagen fibril formation. *International journal of biological macromolecules*, 101, pp.179-186.
 25. Selvaraj, S. and **Fathima, N.N.**, 2017. Fenugreek Incorporated Silk Fibroin Nanofibers□ A Potential Antioxidant Scaffold for Enhanced Wound Healing. *ACS Applied Materials & Interfaces*, 9(7), pp.5916-5926.
 26. Sathish, M., Bhuvanewari, T.S., Rao, J. and Fathima, N., 2017. Effect of Syntan on Fatliquor Ration on Porosity and Mechanical Properties of Wet-blue Leather. *Journal of the American Leather Chemists Association*, 112(04), pp.121-127.
 27. Alla, J., Ramanathan, G., **Fathima, N.N.**, Uma, T. and Rao, J.R., 2017. Fish skin and exotic leathers. *Journal of the American Leather Chemists Association*, 112(02), pp.36-43.
 28. Kadirvelu, K. and **Fathima, N.N.**, 2016. Self-assembly of keratin peptides: Its implication on the performance of electrospun PVA nanofibers. *Scientific reports*, 6, p.36558.
 29. Raja, I.S., Duraipandi, N., Kiran, M.S. and **Fathima, N.N.**, 2016. An emulsion of pigmented nanoceria as a medicinal cosmetic. *RSC advances*, 6(103), pp.100916-100924.
 30. Tarannum, A., Muvva, C., Mehta, A., Raghava Rao, J. and **Fathima, N.N.**, 2016. Role of preferential ions of ammonium ionic liquid in destabilization of collagen. *The Journal of Physical Chemistry B*, 120(27), pp.6515-6524.
 31. Prakash, A., Aravindhan, R., Fathima, N. and Raghava-Rao, J., 2016. Dyeing of chamois leather using water soluble sulphur dyes. *Journal of the American Leather Chemists Association*, 111(10), pp.383-388.

32. Azhar, M., Jayakumar, G., Rao, J.R. and **Fathima, N.**, 2016. Effect of Different Unhairing Methods on the Ionic Liquid Based Fiber Opening Process. *Journal of the American Leather Chemists Association*, 111(06), pp.206-212.
33. Tarannum, A., Muvva, C., Mehta, A., Rao, J.R. and **Fathima, N.N.**, 2016. Phosphonium based ionic liquids-stabilizing or destabilizing agents for collagen?. *RSC advances*, 6(5), pp.4022-4033.
34. Mehta, A., Raghava Rao, J. and **Fathima, N.N.**, 2015. Electrostatic forces mediated by choline dihydrogen phosphate stabilize collagen. *The Journal of Physical Chemistry B*, 119(40), pp.12816-12827.
35. Sthish, M., Azhar, Z., Fathima, N. and Rao, J.R., 2015. effeCt of finishing auxiliaries on Permeability of leathers. *Journal of the American Leather Chemists Association*, 110(11), pp.372-378.
36. Velmurugan, P., Nishter, N.F., Baskar, G., Dhathathreyan, A. and Rao, J.R., 2015. Development of smart leathers: incorporating scent through infusion of encapsulated lemongrass oil. *RSC Advances*, 5(74), pp.59903-59911.
37. Jayakumar, G.C., Mehta, A., Rao, J.R. and **Fathima, N.N.**, 2015. Ionic liquids: new age materials for eco-friendly leather processing. *RSC Advances*, 5(40), pp.31998-32005.
38. Raja, I.S. and **Fathima, N.N.**, 2015. A gelatin based antioxidant enriched biomaterial by grafting and saturation: Towards sustained drug delivery from antioxidant matrix. *Colloids and Surfaces B: Biointerfaces*, 128, pp.537-543.
39. Kandamachira, A., Selvam, S., Marimuthu, N., Janardhanan Kalarical, S. and Fathima Nishter, N., 2015. Collagen-nanoparticle interactions: type I collagen stabilization using functionalized nanoparticles. *Soft Materials*, 13(1), pp.59-65.
40. Kanungo, I., Chellappa, N. and **Fathima, N.N.**, 2015. Microfabrication of gelatin–polycaprolactone composites for customized drug delivery. *Materials Science and Engineering: C*, 49, pp.597-603.
41. Kanungo, I., **Fathima, N.N.**, Jonnalagadda, R.R. and Nair, B.U., 2015. Go natural and smarter: fenugreek as a hydration designer of collagen based biomaterials. *Physical Chemistry Chemical Physics*, 17(4), pp.2778-2793.
42. Raja, I.S. and **Fathima, N.N.**, 2015. Thermoporometry and impedance analysis to study dynamics of water and polymer present in hydrogel. *International journal of biological macromolecules*, 72, pp.437-444.