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Area of Specialization : Bio- waste and waste water treatment, Environmental
Biotechnology, Nanotechnology, cell and tissue engineering.

Last 5yrs publications

1. P. Thanikaivelan, N.T. Narayanan, B. K. Gupta, A. L. M. Reddy and P.M. Ajayan, “Nanobiocomposite from Collagen Waste Using Iron Oxide Nanoparticles and Its Conversion Into Magnetic Nanocarbon” J. Nanosci. Nanotechnol. 2015, 15, 4504-4509
2. C. Alliraja, J.R. Rao and P. Thanikaivelan, “Magnetic collagen fibers stabilized using functional iron oxide nanoparticles in non-aqueous medium” RSC Adv. 2015, 5, 20939-20944
3. Ashokkumar, T.N. Narayanan, B. K. Gupta, A. L. M. Reddy, A. P. Singh, S. K. Dhawan, B. Chandrasekaran, D. Rawat, S. Talapatra, P.M. Ajayan and P. Thanikaivelan, “Conversion of Industrial Bio-Waste Into Useful Nanomaterials”, ACS Sustainable Chem. Eng. 2013, 1, 619-626
4. S. Preethi, A. Anumary, M. Ashokkumar and P. Thanikaivelan, “Probing horseradish peroxidase catalyzed degradation of azo dye from tannery wastewater”, SpringerPlus 2013, 2, 341 (8p)
5. M. Ashokkumar, T. Saravanamoorthy D.P. Hashim, P.M. Ajayan and P. Thanikaivelan, “Electrically conducting nanobiocomposites using carbon nanotubes and collagen waste fibers” Mater. Chem. Phys. 2015, 157, 8-15
6. R. Aravindhan, V. Monika, K. Balamurugan, V. Subramanian, J.R. Rao and P. Thanikaivelan, “Highly clean and efficient enzymatic dehairing in green solvents” J. Clean. Prod. 2017, 140, 1578-1586
7. K. Cheirnadurai, P. Thanikaivelan and R. Murali, “Highly biocompatible collagen-Delonix regia seed polysaccharide hybrid scaffolds for antimicrobial wound dressing” Carbohydr. Polym. 2016, 137, 584-593
8. P. Thanikaivelan R. Murali and K. Krishnaraj, “Magnetic leathers” RSC Adv. 2016, 6, 6496-6503
9. R. Murali, T. Ponrasu, K. Cheirnadurai and P. Thanikaivelan, “Biomimetic hybrid porous scaffolds immobilized with platelet derived growth factor-BB promote cellularization and vascularization in tissue engineering” J. Biomed. Mater. Res. A 2016, 104, 388-396
10. R. Murali and P. Thanikaivelan, “Bionic, Porous, Functionalized Hybrid Scaffolds with Vascular Endothelial Growth Factor Promote Rapid Wound Healing in Wistar Albino Rats” RSC Adv. 2016, 6, 19252-19264

11. S. Prabhu, K. Cheirmadurai, J.R. Rao and P. Thanikaivelan, "Glycine functionalized alumina nanoparticles stabilize collagen in ethanol medium" *Bull. Mater. Sci.* 2016, 39, 223-228
12. M. Ashokkumar, A.C. Chipara, N.T. Narayanan, A. Anumary, R. Sruthi, P. Thanikaivelan, R. Vajtai, S. A. Mani and P.M. Ajayan, "Three-Dimensional Porous Sponges from Collagen Bio-Wastes", *ACS Appl. Mater. Interfaces* 2016, 8, 14836-14844
13. M. B. Telay, R. Murali, K. Cheirmadurai and P. Thanikaivelan, "Conducting collagen-polypyrrole hybrid aerogels made from animal skin waste" *RSC Adv.* 2016, 6, 63071-63077
14. R. Murali, P. Thanikaivelan and K. Cheirmadurai, " Melatonin in functionalized biomimetic constructs promotes rapid tissue regeneration in Wistar albino rats" *J. Mater. Chem. B* 2016, 4, 5850-5862
15. K. Cheirmadurai, Soma Biswas, R. Murali and P. Thanikaivelan, " Green synthesis of copper nanoparticles and conducting nanobiocomposites using plant and animal sources" *RSC Adv.* 2014, 4, 19507-19511
16. R. Murali, P. Vidhya and P. Thanikaivelan," Thermoresponsive magnetic nanoparticle - aminated guar gum hydrogel system for sustained release of doxorubicin hydrochloride" *Carbohydr. Polym.* 2014, 110, 440-445
17. G. Woynshet, K. Phebe, P. Thanikaivelan, K. Krishnaraj and B. Chandrasekaran" Influence of sewing threads on seam pucker of sheep nappa leathers" , *J. Soc. Leather Technol. Chem.* 2014, 98, 158-162
18. R. Murali, P. Thanikaivelan and K. Cheirmadurai, " Collagen - poly(dialdehyde) guar gum based porous 3D scaffolds immobilized with growth factor for tissue engineering applications" *Carbohydr. Polym.* 2014, 114, 399-406
19. J.D. Wegene and P. Thanikaivelan," Conducting Leathers for Smart Product Applications" *Ind. Eng. Chem. Res.* 2014, 53, 18209-18215
20. S. Silambarasan, R. Aravindhan, J.R. Rao and P. Thanikaivelan, "Delimiting water in the chromium-induced stabilization of collagen" *J. Clean. Prod.* 2015, 87, 567-572
21. M. Amsaveni, A. Anumary, M. Ashokkumar, B. Chandrasekaran and P. Thanikaivelan, "Green synthesis and characterization of hybrid collagen-cellulose-albumin biofibers from skin waste" *Appl. Biochem. Biotechnol.* 2013, 171, 1500-1512
22. J.D. Wegene, P. Thanikaivelan, K. Krishnaraj, K. Phebe and B. Chandrasekaran, "Concurrent genesis of color and electrical conductivity in leathers through in-situ polymerization of aniline for smart product applications" *Polym. Adv. Technol.* 2015, 26, 521-527
23. JS. Silambarasan, R. Aravindhan, J.R. Rao and P. Thanikaivelan, "Waterless tanning: Chrome tanning in ethanol and its derivatives" *RSC Adv.* 2015, 5, 66815-66823
24. A. Anumary, P. Thanikaivelan, M. Ashokkumar, R. Kumar, P.K. Sehgal and B. Chandrasekaran, "Synthesis and characterization of hybrid biodegradable films from bovine hide collagen and cellulose derivatives for biomedical applications", *Soft Mater.* 2013, 11, 181-194