

## List of Publications

1. Kumar, Chinnaiyan Senthil, Ramar Thangam, Solomon Agnes Mary, Perumal Ramesh Kannan, Gopinath Arun, and **Balaraman Madhan**. "Targeted delivery and apoptosis induction of trans-resveratrol-ferulic acid loaded chitosan coated folic acid conjugate solid lipid nanoparticles in colon cancer cells." *Carbohydrate polymers* 231 (2020): 115682.
2. Ramya, Kadathur Ramachandran, Ramar Thangam, and **Balaraman Madhan**. "Comparative analysis of the chemical treatments used in keratin extraction from red sheep's hair and the cell viability evaluations of this keratin for tissue engineering applications." *Process Biochemistry* 90 (2020): 223-232.
3. Visalatchi, M., **Balaraman Madhan**, and Ganesh Shanmugam. "N-Vanillylnonanamide, a natural product from capsicum oleoresin, as potential inhibitor of collagen fibrillation." *International journal of biological macromolecules* 156 (2020): 1146-1152.
4. Ariram, Naisini, and **Balaraman Madhan**. "Development of bio-acceptable leather using bagasse." *Journal of Cleaner Production* 250 (2020): 119441.
5. Ariram, Naisini, Murali Sathish, and **Balaraman Madhan**. "Chemical/Water-Free Deliming Process Using Supercritical Carbon Dioxide: A Step toward Greener Leather Manufacture." *ACS Sustainable Chemistry & Engineering* 8, no. 31 (2020): 11747-11754.
6. Muralidharan, Vimudha, Michael Selvakumar Arokianathan, **Madhan Balaraman**, and Saravanan Palanivel. "Tannery trimming waste based biodegradable bioplastic: Facile synthesis and characterization of properties." *Polymer Testing* 81 (2020): 106250.
7. Mohammed, Shegaw Ahmed, Ariram Naisini, **Balaraman Madhan**, and Berhanu Assefa Demessie. "Rumex abyssinicus (mekmeko): A newer alternative for leather manufacture." *Environmental Progress & Sustainable Energy* 39, no. 6 (2020): e13453.
8. Gopinath, Arun, Nagarajan Vedaraman, **Balaraman Madhan**, Jonnalagadda Raghava Rao, Magesh Peter, and Ramalingam Kirubakaran. "Supercritical Carbon Dioxide Based Skin Preservation: Solving the Soak Liquor Effluent Crisis of the Leather Industry." *Journal of the American Leather Chemists Association* 115, no. 4 (2020): 145-150.
9. Kaushik, M., R. Niranjana, Ramar Thangam, **Balaraman Madhan**, V. Pandiyarasan, C. Ramachandran, Deog-Hwan Oh, and G. Devanand Venkatasubbu. "Investigations on the antimicrobial activity and wound healing potential of ZnO nanoparticles." *Applied Surface Science* 479 (2019): 1169-1177.
10. Sathish, Murali, **Balaraman Madhan**, and Jonnalagadda Raghava Rao. "Leather solid waste: An eco-benign raw material for leather chemical preparation—A circular economy example." *Waste Management* 87 (2019): 357-367.
11. Ramadass, Satish Kumar, Lone Saquib Nazir, Ramar Thangam, Ramesh Kannan Perumal, I. Manjubala, **Balaraman Madhan**, and Shanmuganathan Seetharaman. "Type I collagen peptides and nitric oxide releasing electrospun silk fibroin scaffold: A multifunctional approach for the treatment of ischemic chronic wounds." *Colloids and Surfaces B: Biointerfaces* 175 (2019): 636-643.

12. Siddiq, A. Mohammed, Ramar Thangam, **Balaraman Madhan**, and Md Sayem Alam. "Green (gemini) surfactant mediated gold nanoparticles green synthesis: Effect on triple negative breast cancer cells." *Nano-Structures & Nano-Objects* 19 (2019): 100373
13. Siddiq, A. Mohammed, Ramar Thangam, **Balaraman Madhan**, and Md Sayem Alam. "Counterion coupled (COCO) gemini surfactant capped Ag/Au alloy and Ag@ Au core-shell nanoparticles for cancer therapy." *RSC Advances* 9, no. 65 (2019): 37830-37845.
14. Kumar, Chinnaiyan Senthil, Agnes Mary Soloman, Ramar Thangam, Ramesh Kannan Perumal, Arun Gopinath, and **Balaraman Madhan**. "Ferulic acid-loaded collagen hydrolysate and polycaprolactone nanofibres for tissue engineering applications." *IET nanobiotechnology* 14, no. 3 (2019): 202-209.
15. Chinnaiyan, Senthil Kumar, Agnes Mary Soloman, Ramesh Kannan Perumal, Arun Gopinath, and **Madhan Balaraman**. "5 Fluorouracil-loaded biosynthesised gold nanoparticles for the in vitro treatment of human pancreatic cancer cell." *IET nanobiotechnology* 13, no. 8 (2019): 824-828.
16. Jayamani, Jayaraman, Ariram Naisini, **Balaraman Madhan**, and Ganesh Shanmugam. "Ferulic acid, a natural phenolic compound, as a potential inhibitor for collagen fibril formation and its propagation." *International journal of biological macromolecules* 113 (2018): 277-284.
17. Perumal, Ramesh Kannan, Sathiamurthi Perumal, Ramar Thangam, Arun Gopinath, Satiesh Kumar Ramadass, **Balaraman Madhan**, and Srinivasan Sivasubramanian. "Collagen-fucoidan blend film with the potential to induce fibroblast proliferation for regenerative applications." *International journal of biological macromolecules* 106 (2018): 1032-1040.
18. Perumal, Ramesh Kannan, Arun Gopinath, Ramar Thangam, Sathiamurthi Perumal, Dinesh Masilamani, Satiesh Kumar Ramadass, and **Balaraman Madhan**. "Collagen-silica bio-composite enriched with Cynodon dactylon extract for tissue repair and regeneration." *Materials Science and Engineering: C* 92 (2018): 297-306.
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21. Mohammed, Shegaw Ahmed, Rames C. Panda, **Balaraman Madhan**, and Berhanu Assefa Demessie. "Rumex abyssinicus (mekmeko) extract as cleaner approach for dyeing in product manufacture: Optimization and modeling studies." *Asia-Pacific Journal of Chemical Engineering* 13, no. 2 (2018): e2165.
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associated chronic wound management using biomaterials." *Journal of Global Infectious Diseases* 10, no. 2 (2018): 99

23. Kandhasamy, Subramani, Sathiamurthi Perumal, **Balaraman Madhan**, Narayanan Umamaheswari, Javid Ahmad Banday, Paramasivan Thirumalai Perumal, and Vichangal Pridiuldi Santhanakrishnan. "Synthesis and fabrication of collagen-coated osthonamide electrospun nanofiber scaffold for wound healing." *ACS Applied Materials & Interfaces* 9, no. 10 (2017): 8556-8568.
24. Mohammed, Shegaw Ahmed, Rames C. Panda, **Balaraman Madhan**, and Berhanu Assefa Demessie. "Extraction of bio-active compounds from Ethiopian plant material *Rumex abyssinicus* (mekmeko) root—A study on kinetics, optimization, antioxidant and antibacterial activity." *Journal of the Taiwan Institute of Chemical Engineers* 75 (2017): 228-239.
25. Sathuvan, Malairaj, Ramar Thangam, Mani Gajendiran, Raju Vivek, Sengottuvelan Balasubramanian, Subramani Nagaraj, Palani Gunasekaran, **Balaraman Madhan**, and Ramasamy Rengasamy. " $\kappa$ -Carrageenan: An effective drug carrier to deliver curcumin in cancer cells and to induce apoptosis." *Carbohydrate polymers* 160 (2017): 184-193.
26. Masilamani, Dineshkumar, Vijayaraghavan Srinivasan, Ramya K. Ramachandran, Arun Gopinath, **Balaraman Madhan**, and Palanivel Saravanan. "Sustainable packaging materials from tannery trimming solid waste: A new paradigm in wealth from waste approaches." *Journal of Cleaner Production* 164 (2017): 885-891.
27. Hussien, Mohammed, S. Kumar-Ramadass, **Balaraman Madhan**, and J. Raghava Rao. "Enzymatic Hydrolysis of Limed Trimmings: Preparation, Characterization and Application of Collagen Hydrolysate." *Journal of the American Leather Chemists Association* 112, no. 02 (2017): 44-51.
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29. Gopinath, Arun, Ganesh Shanmugam, **Balaraman Madhan**, and Jonnalagadda Raghava Rao. "Differential behavior of native and denatured collagen in the presence of alcoholic solvents: a gateway to instant structural analysis." *International journal of biological macromolecules* 102 (2017): 1156-1165.
30. Manjubala, I., P. Ganesan, U. Narendrakumar, and **B. Madhan**. "Fabrication of BCP-cellulose composite scaffolds for bone regeneration." In *Orthopaedic Proceedings*, vol. 99, no. SUPP\_2, pp. 45-45. The British Editorial Society of Bone & Joint Surgery, 2017.
31. Kakkar, Prachi, and **Balaraman Madhan**. "Fabrication of keratin-silica hydrogel for biomedical applications." *Materials Science and Engineering: C* 66 (2016): 178-184.
32. Sathish, Murali, **Balaraman Madhan**, Kalarical Janardhnan Sreeram, Jonnalagadda Raghava Rao, and Balachandran Unni Nair. "Alternative carrier medium for sustainable leather manufacturing—a review and perspective." *Journal of cleaner production* 112 (2016): 49-58.
33. Ramadass, Satiesh Kumar, Sugun Lal Jabaris, Ramesh Kannan Perumal, Villianur Ibrahim HairulIslam, Arun Gopinath, and **Balaraman Madhan**. "Type I collagen and its daughter

- peptides for targeting mucosal healing in ulcerative colitis: A new treatment strategy." *European Journal of Pharmaceutical Sciences* 91 (2016): 216-224.
34. Tiku, Moti L., and **Balaraman Madhan**. "Preserving the longevity of long-lived type II collagen and its implication for cartilage therapeutics." *Ageing research reviews* 28 (2016): 62-71.
35. Mohammed, Shegaw Ahmed, **Balaraman Madhan**, Berhanu Assefa Demissie, Brindha Velappan, and Alagumuthu Tamil Selvi. "Rumex abyssinicus (mekmeko) Ethiopian plant material for preservation of goat skins: approach for cleaner leather manufacture." *Journal of Cleaner Production* 133 (2016): 1043-1052.
36. Masilamani, Dineshkumar, **Balaraman Madhan**, Ganesh Shanmugam, Saravanan Palanivel, and Bhaskar Narayan. "Extraction of collagen from raw trimming wastes of tannery: a waste to wealth approach." *Journal of Cleaner Production* 113 (2016): 338-344.
37. Kakkar, Prachi, **Madhan Balaraman**, and Ganesh Shanmugam. "Transient structures of keratins from hoof and horn influence their self association and supramolecular assemblies." *International journal of biological macromolecules* 93 (2016): 172-178.
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