

Balaraman Madhan

List of Publications by Year in descending order

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Version: 2024-02-01

83
papers

3,680
citations

109321

35
h-index

138484

58
g-index

84
all docs

84
docs citations

84
times ranked

4842
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Effective utilization of tannery hair waste to develop a high-performing re-tanning agent for cleaner leather manufacturing. <i>Journal of Environmental Management</i> , 2022, 302, 114029. | 7.8 | 13 |
| 2 | Fabrication of hybrid povidone-iodine impregnated collagen-hydroxypropyl methylcellulose composite scaffolds for wound-healing application. <i>Journal of Drug Delivery Science and Technology</i> , 2022, 70, 103247. | 3.0 | 7 |
| 3 | A cyclodextrin-based macrocyclic oligosaccharide cavitanol with a dual functionality limits the collagen fibrillogenesis: A possible carbohydrate-based therapeutic molecule for fibrotic diseases. <i>International Journal of Biological Macromolecules</i> , 2022, 207, 222-231. | 7.5 | 3 |
| 4 | Collagen - Annona polysaccharide scaffolds with tetrahydrocurcumin loaded microspheres for antimicrobial wound dressing. <i>Carbohydrate Polymer Technologies and Applications</i> , 2022, 3, 100204. | 2.6 | 2 |
| 5 | Cyclic carbonate: A green multifunctional agent for sustainable leather manufacture. <i>Journal of Cleaner Production</i> , 2022, 356, 131818. | 9.3 | 9 |
| 6 | Turning problem into possibility: A comprehensive review on leather solid waste intra-valorization attempts for leather processing. <i>Journal of Cleaner Production</i> , 2022, 367, 133021. | 9.3 | 37 |
| 7 | Ferulic acid loaded microspheres reinforced in 3D hybrid scaffold for antimicrobial wound dressing. <i>International Journal of Biological Macromolecules</i> , 2021, 177, 463-473. | 7.5 | 21 |
| 8 | Chromium-free and waterless vegetable-aluminium tanning system for sustainable leather manufacture. <i>Chemical Engineering Journal Advances</i> , 2021, 7, 100108. | 5.2 | 15 |
| 9 | N-Vanillylnonanamide, a natural product from capsicum oleoresin, as potential inhibitor of collagen fibrillation. <i>International Journal of Biological Macromolecules</i> , 2020, 156, 1146-1152. | 7.5 | 9 |
| 10 | 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. <i>Process Biochemistry</i> , 2020, 90, 223-232. | 3.7 | 31 |
| 11 | Targeted delivery and apoptosis induction of trans-resveratrol-ferulic acid loaded chitosan coated folic acid conjugate solid lipid nanoparticles in colon cancer cells. <i>Carbohydrate Polymers</i> , 2020, 231, 115682. | 10.2 | 111 |
| 12 | Development of bio-acceptable leather using bagasse. <i>Journal of Cleaner Production</i> , 2020, 250, 119441. | 9.3 | 29 |
| 13 | Tannery trimming waste based biodegradable bioplastic: Facile synthesis and characterization of properties. <i>Polymer Testing</i> , 2020, 81, 106250. | 4.8 | 16 |
| 14 | Chemical/Water-Free Delimiting Process Using Supercritical Carbon Dioxide: A Step toward Greener Leather Manufacture. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 11747-11754. | 6.7 | 10 |
| 15 | <i>Rumex abyssinicus</i> (mekmeko): A newer alternative for leather manufacture. <i>Environmental Progress and Sustainable Energy</i> , 2020, 39, e13453. | 2.3 | 5 |
| 16 | Ferulic acid-loaded collagen hydrolysate and polycaprolactone nanofibres for tissue engineering applications. <i>IET Nanobiotechnology</i> , 2020, 14, 202-209. | 3.8 | 12 |
| 17 | Investigations on the antimicrobial activity and wound healing potential of ZnO nanoparticles. <i>Applied Surface Science</i> , 2019, 479, 1169-1177. | 6.1 | 160 |
| 18 | Leather solid waste: An eco-benign raw material for leather chemical preparation – A circular economy example. <i>Waste Management</i> , 2019, 87, 357-367. | 7.4 | 76 |

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|----|---|------|-----------|
| 19 | 5 Fluorouracil-loaded biosynthesised gold nanoparticles for the in vitro treatment of human pancreatic cancer cell. IET Nanobiotechnology, 2019, 13, 824-828. | 3.8 | 15 |
| 20 | Counterion coupled (COCO) gemini surfactant capped Ag/Au alloy and core-shell nanoparticles for cancer therapy. RSC Advances, 2019, 9, 37830-37845. | 3.6 | 19 |
| 21 | 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, 2019, 175, 636-643. | 5.0 | 48 |
| 22 | Ferulic acid, a natural phenolic compound, as a potential inhibitor for collagen fibril formation and its propagation. International Journal of Biological Macromolecules, 2018, 113, 277-284. | 7.5 | 16 |
| 23 | Selective binding and dynamics of imidazole alkyl sulfate ionic liquids with human serum albumin and collagen – a detailed NMR investigation. Physical Chemistry Chemical Physics, 2018, 20, 9256-9268. | 2.8 | 28 |
| 24 | <i>Rumex abyssinicus</i> (mekmeko) extract as cleaner approach for dyeing in product manufacture: Optimization and modeling studies. Asia-Pacific Journal of Chemical Engineering, 2018, 13, e2165. | 1.5 | 6 |
| 25 | Disintegration of collagen fibrils by Glucono- δ -lactone: An implied lead for disintegration of fibrosis. International Journal of Biological Macromolecules, 2018, 107, 175-185. | 7.5 | 8 |
| 26 | Collagen-fucoidan blend film with the potential to induce fibroblast proliferation for regenerative applications. International Journal of Biological Macromolecules, 2018, 106, 1032-1040. | 7.5 | 48 |
| 27 | Collagen-silica bio-composite enriched with <i>Cynodon dactylon</i> extract for tissue repair and regeneration. Materials Science and Engineering C, 2018, 92, 297-306. | 7.3 | 11 |
| 28 | Leprosy-associated chronic wound management using biomaterials. Journal of Global Infectious Diseases, 2018, 10, 99. | 0.5 | 3 |
| 29 | Synthesis and Fabrication of Collagen-Coated Osthohamide Electrospun Nanofiber Scaffold for Wound Healing. ACS Applied Materials & Interfaces, 2017, 9, 8556-8568. | 8.0 | 103 |
| 30 | Differential behavior of native and denatured collagen in the presence of alcoholic solvents: A gateway to instant structural analysis. International Journal of Biological Macromolecules, 2017, 102, 1156-1165. | 7.5 | 11 |
| 31 | Extraction of bio-active compounds from Ethiopian plant material <i>Rumex abyssinicus</i> (mekmeko) root – A study on kinetics, optimization, antioxidant and antibacterial activity. Journal of the Taiwan Institute of Chemical Engineers, 2017, 75, 228-239. | 5.3 | 10 |
| 32 | χ -Carrageenan: An effective drug carrier to deliver curcumin in cancer cells and to induce apoptosis. Carbohydrate Polymers, 2017, 160, 184-193. | 10.2 | 54 |
| 33 | Sustainable packaging materials from tannery trimming solid waste: A new paradigm in wealth from waste approaches. Journal of Cleaner Production, 2017, 164, 885-891. | 9.3 | 39 |
| 34 | Phenotypic Screening Identifies Synergistically Acting Natural Product Enhancing the Performance of Biomaterial Based Wound Healing. Frontiers in Pharmacology, 2017, 8, 433. | 3.5 | 2 |
| 35 | Fabrication of keratin-silica hydrogel for biomedical applications. Materials Science and Engineering C, 2016, 66, 178-184. | 7.3 | 53 |
| 36 | Type I collagen and its daughter peptides for targeting mucosal healing in ulcerative colitis: A new treatment strategy. European Journal of Pharmaceutical Sciences, 2016, 91, 216-224. | 4.0 | 22 |

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|----|---|------|-----------|
| 37 | Preserving the longevity of long-lived type II collagen and its implication for cartilage therapeutics. <i>Ageing Research Reviews</i> , 2016, 28, 62-71. | 10.9 | 30 |
| 38 | Transient structures of keratins from hoof and horn influence their self association and supramolecular assemblies. <i>International Journal of Biological Macromolecules</i> , 2016, 93, 172-178. | 7.5 | 6 |
| 39 | <i>Rumex abyssinicus</i> (mekmeko) Ethiopian plant material for preservation of goat skins: Approach for cleaner leather manufacture. <i>Journal of Cleaner Production</i> , 2016, 133, 1043-1052. | 9.3 | 39 |
| 40 | Extraction of collagen from raw trimming wastes of tannery: a waste to wealth approach. <i>Journal of Cleaner Production</i> , 2016, 113, 338-344. | 9.3 | 66 |
| 41 | Alternative carrier medium for sustainable leather manufacturing – a review and perspective. <i>Journal of Cleaner Production</i> , 2016, 112, 49-58. | 9.3 | 47 |
| 42 | Capsaicin inhibits collagen fibril formation and increases the stability of collagen fibers. <i>European Biophysics Journal</i> , 2015, 44, 69-76. | 2.2 | 24 |
| 43 | Altering the concentration of silica tunes the functional properties of collagen-silica composite scaffolds to suit various clinical requirements. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2015, 52, 131-138. | 3.1 | 13 |
| 44 | Molecular Level Insights on Collagen-Polyphenols Interaction Using Spin-Relaxation and Saturation Transfer Difference NMR. <i>Journal of Physical Chemistry B</i> , 2015, 119, 14076-14085. | 2.6 | 32 |
| 45 | High concentration of propanol does not significantly alter the triple helical structure of type I collagen. <i>Colloid and Polymer Science</i> , 2015, 293, 2655-2662. | 2.1 | 5 |
| 46 | NMR Studies Demonstrate a Unique AAB Composition and Chain Register for a Heterotrimeric Type IV Collagen Model Peptide Containing a Natural Interruption Site. <i>Journal of Biological Chemistry</i> , 2015, 290, 24201-24209. | 3.4 | 19 |
| 47 | Paclitaxel/Epigallocatechin gallate coloaded liposome: A synergistic delivery to control the invasiveness of MDA-MB-231 breast cancer cells. <i>Colloids and Surfaces B: Biointerfaces</i> , 2015, 125, 65-72. | 5.0 | 77 |
| 48 | Intra-Articular Injections of Polyphenols Protect Articular Cartilage from Inflammation-Induced Degradation: Suggesting a Potential Role in Cartilage Therapeutics. <i>PLoS ONE</i> , 2015, 10, e0127165. | 2.5 | 45 |
| 49 | Effect of aqueous ethanol on the triple-helical structure of collagen. <i>European Biophysics Journal</i> , 2014, 43, 643-652. | 2.2 | 35 |
| 50 | Extraction and characterization of keratin from bovine hoof: A potential material for biomedical applications. <i>SpringerPlus</i> , 2014, 3, 596. | 1.2 | 86 |
| 51 | Method of addition of acetonitrile influences the structure and stability of collagen. <i>Process Biochemistry</i> , 2014, 49, 210-216. | 3.7 | 14 |
| 52 | Sol-gel processed mupirocin silica microspheres loaded collagen scaffold: A synergistic bio-composite for wound healing. <i>European Journal of Pharmaceutical Sciences</i> , 2014, 52, 26-33. | 4.0 | 76 |
| 53 | Sol-Gel Assisted Fabrication of Collagen Hydrolysate Composite Scaffold: A Novel Therapeutic Alternative to the Traditional Collagen Scaffold. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 15015-15025. | 8.0 | 54 |
| 54 | Development of keratin-chitosan-gelatin composite scaffold for soft tissue engineering. <i>Materials Science and Engineering C</i> , 2014, 45, 343-347. | 7.3 | 99 |

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|----|---|------|-----------|
| 55 | Studies on the application of natural dye extract from <i>Bixa orellana</i> seeds for dyeing and finishing of leather. <i>Industrial Crops and Products</i> , 2013, 43, 84-86. | 5.2 | 48 |
| 56 | 2,2,2-Trifluoroethanol disrupts the triple helical structure and self-association of type I collagen. <i>International Journal of Biological Macromolecules</i> , 2013, 54, 155-159. | 7.5 | 20 |
| 57 | Preparation and evaluation of mesalamine collagen in situ rectal gel: A novel therapeutic approach for treating ulcerative colitis. <i>European Journal of Pharmaceutical Sciences</i> , 2013, 48, 104-110. | 4.0 | 33 |
| 58 | Dry ice " an eco-friendly alternative for ammonium reduction in leather manufacturing. <i>Journal of Cleaner Production</i> , 2013, 54, 289-295. | 9.3 | 14 |
| 59 | Preparation and properties of tannic acid cross-linked collagen scaffold and its application in wound healing. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2013, 101B, 560-567. | 3.4 | 114 |
| 60 | Collagen adsorption on quercetin loaded polycaprolactone microspheres: Approach for "stealth" implant. <i>International Journal of Biological Macromolecules</i> , 2012, 50, 1091-1094. | 7.5 | 20 |
| 61 | Type I Collagen Immobilized Poly(caprolactone) Nanofibers: Characterization of Surface Modification and Growth of Fibroblasts. <i>Advanced Engineering Materials</i> , 2012, 14, B149. | 3.5 | 43 |
| 62 | Uv damage of collagen: Insights from model collagen peptides. <i>Biopolymers</i> , 2012, 97, 189-198. | 2.4 | 80 |
| 63 | Osteogenesis Imperfecta Model Peptides: Incorporation of Residues Replacing Gly within a Triple Helix Achieved by Renucleation and Local Flexibility. <i>Biophysical Journal</i> , 2011, 101, 449-458. | 0.5 | 24 |
| 64 | Formulation and Evaluation of Quercetin Polycaprolactone Microspheres for the Treatment of Rheumatoid Arthritis. <i>Journal of Pharmaceutical Sciences</i> , 2011, 100, 195-205. | 3.3 | 132 |
| 65 | Cleaner tanning process for the manufacture of upper leathers. <i>Clean Technologies and Environmental Policy</i> , 2010, 12, 381-388. | 4.1 | 12 |
| 66 | Cleaner tanning practices for tannery pollution abatement: Role of enzymes in eco-friendly vegetable tanning. <i>Journal of Cleaner Production</i> , 2009, 17, 507-515. | 9.3 | 79 |
| 67 | Triple-helical peptides: An approach to collagen conformation, stability, and self-association. <i>Biopolymers</i> , 2008, 89, 345-353. | 2.4 | 165 |
| 68 | Stabilization of collagen by the plant polyphenolics <i>Acacia mollissima</i> and <i>Terminalia chebula</i> . <i>Journal of Applied Polymer Science</i> , 2008, 108, 199-205. | 2.6 | 15 |
| 69 | Studies on the influence of bacterial collagenase in leather dyeing. <i>Dyes and Pigments</i> , 2008, 76, 338-347. | 3.7 | 52 |
| 70 | NMR Monitoring of Chain-Specific Stability in Heterotrimeric Collagen Peptides. <i>Journal of the American Chemical Society</i> , 2008, 130, 13520-13521. | 13.7 | 31 |
| 71 | Predicting the Clinical Lethality of Osteogenesis Imperfecta from Collagen Glycine Mutations. <i>Biochemistry</i> , 2008, 47, 5424-5432. | 2.5 | 68 |
| 72 | Stabilization of Natural Fiber Collagen Using Vegetable Tannins: An Effective Enzyme Assisted Process. <i>Journal of Natural Fibers</i> , 2008, 5, 404-428. | 3.1 | 3 |

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|----|---|------|-----------|
| 73 | Role of green tea polyphenols in the inhibition of collagenolytic activity by collagenase. International Journal of Biological Macromolecules, 2007, 41, 16-22. | 7.5 | 133 |
| 74 | Stabilization of collagen using plant polyphenol: Role of catechin. International Journal of Biological Macromolecules, 2005, 37, 47-53. | 7.5 | 169 |
| 75 | Recovery and reuse of chromium from tannery wastewaters using Turbinaria ornata seaweed. Journal of Chemical Technology and Biotechnology, 2004, 79, 1251-1258. | 3.2 | 67 |
| 76 | Bioaccumulation of Chromium from Tannery Wastewater: An Approach for Chrome Recovery and Reuse. Environmental Science & Technology, 2004, 38, 300-306. | 10.0 | 249 |
| 77 | Interaction of aldehydes with collagen: effect on thermal, enzymatic and conformational stability. International Journal of Biological Macromolecules, 2004, 34, 241-247. | 7.5 | 93 |
| 78 | Ab initio and density functional theory based studies on collagen triplets. Theoretical Chemistry Accounts, 2003, 110, 19-27. | 1.4 | 8 |
| 79 | Density functional theory calculations on dipeptide-gallic acid interaction. Chemical Physics Letters, 2003, 369, 131-138. | 2.6 | 8 |
| 80 | Effect of zirconium(IV) complexes on the thermal and enzymatic stability of type I collagen. Journal of Inorganic Biochemistry, 2003, 95, 47-54. | 3.5 | 61 |
| 81 | Study on the stabilisation of collagen with vegetable tannins in the presence of acrylic polymer. Biomaterials, 2002, 23, 2841-2847. | 11.4 | 70 |
| 82 | Molecular mechanics and dynamics studies on the interaction of gallic acid with collagen-like peptides. Chemical Physics Letters, 2001, 346, 334-340. | 2.6 | 40 |
| 83 | Supercritical carbon dioxide fiber opening: a new paradigm for cleaner leather manufacture. Clean Technologies and Environmental Policy, 0, , 1. | 4.1 | 0 |