

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	Bioaccumulation of Chromium from Tannery Wastewater: An Approach for Chrome Recovery and Reuse. <i>Environmental Science & Technology</i> , 2004, 38, 300-306.	10.0	249
2	Stabilization of collagen using plant polyphenol: Role of catechin. <i>International Journal of Biological Macromolecules</i> , 2005, 37, 47-53.	7.5	169
3	Triple-helical peptides: An approach to collagen conformation, stability, and self-association. <i>Biopolymers</i> , 2008, 89, 345-353.	2.4	165
4	Investigations on the antimicrobial activity and wound healing potential of ZnO nanoparticles. <i>Applied Surface Science</i> , 2019, 479, 1169-1177.	6.1	160
5	Role of green tea polyphenols in the inhibition of collagenolytic activity by collagenase. <i>International Journal of Biological Macromolecules</i> , 2007, 41, 16-22.	7.5	133
6	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
7	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
8	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
9	Synthesis and Fabrication of Collagen-Coated Ostholamide Electrospun Nanofiber Scaffold for Wound Healing. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 8556-8568.	8.0	103
10	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
11	Interaction of aldehydes with collagen: effect on thermal, enzymatic and conformational stability. <i>International Journal of Biological Macromolecules</i> , 2004, 34, 241-247.	7.5	93
12	Extraction and characterization of keratin from bovine hoof: A potential material for biomedical applications. <i>SpringerPlus</i> , 2014, 3, 596.	1.2	86
13	Uv damage of collagen: Insights from model collagen peptides. <i>Biopolymers</i> , 2012, 97, 189-198.	2.4	80
14	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
15	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
16	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
17	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
18	Study on the stabilisation of collagen with vegetable tannins in the presence of acrylic polymer. <i>Biomaterials</i> , 2002, 23, 2841-2847.	11.4	70

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19	Predicting the Clinical Lethality of Osteogenesis Imperfecta from Collagen Glycine Mutations. <i>Biochemistry</i> , 2008, 47, 5424-5432.	2.5	68
20	Recovery and reuse of chromium from tannery wastewaters using <i>Turbinaria ornata</i> seaweed. <i>Journal of Chemical Technology and Biotechnology</i> , 2004, 79, 1251-1258.	3.2	67
21	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
22	Effect of zirconium(IV) complexes on the thermal and enzymatic stability of type I collagen. <i>Journal of Inorganic Biochemistry</i> , 2003, 95, 47-54.	3.5	61
23	Solâ€“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
24	Î²-Carrageenan: An effective drug carrier to deliver curcumin in cancer cells and to induce apoptosis. <i>Carbohydrate Polymers</i> , 2017, 160, 184-193.	10.2	54
25	Fabrication of keratin-silica hydrogel for biomedical applications. <i>Materials Science and Engineering C</i> , 2016, 66, 178-184.	7.3	53
26	Studies on the influence of bacterial collagenase in leather dyeing. <i>Dyes and Pigments</i> , 2008, 76, 338-347.	3.7	52
27	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
28	Collagen-fucoidan blend film with the potential to induce fibroblast proliferation for regenerative applications. <i>International Journal of Biological Macromolecules</i> , 2018, 106, 1032-1040.	7.5	48
29	Type I collagen peptides and nitric oxide releasing electrospun silk fibroin scaffold: A multifunctional approach for the treatment of ischemic chronic wounds. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019, 175, 636-643.	5.0	48
30	Alternative carrier medium for sustainable leather manufacturing â€“ a review and perspective. <i>Journal of Cleaner Production</i> , 2016, 112, 49-58.	9.3	47
31	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
32	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
33	Molecular mechanics and dynamics studies on the interaction of gallic acid with collagen-like peptides. <i>Chemical Physics Letters</i> , 2001, 346, 334-340.	2.6	40
34	<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
35	Sustainable packaging materials from tannery trimming solid waste: A new paradigm in wealth from waste approaches. <i>Journal of Cleaner Production</i> , 2017, 164, 885-891.	9.3	39
36	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

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37	Effect of aqueous ethanol on the triple-helical structure of collagen. <i>European Biophysics Journal</i> , 2014, 43, 643-652.	2.2	35
38	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
39	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
40	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
41	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
42	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
43	Development of bio-acceptable leather using bagasse. <i>Journal of Cleaner Production</i> , 2020, 250, 119441.	9.3	29
44	Selective binding and dynamics of imidazole alkyl sulfate ionic liquids with human serum albumin and collagen – a detailed NMR investigation. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 9256-9268.	2.8	28
45	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
46	Capsaicin inhibits collagen fibril formation and increases the stability of collagen fibers. <i>European Biophysics Journal</i> , 2015, 44, 69-76.	2.2	24
47	Type I collagen and its daughter peptides for targeting mucosal healing in ulcerative colitis: A new treatment strategy. <i>European Journal of Pharmaceutical Sciences</i> , 2016, 91, 216-224.	4.0	22
48	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
49	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
50	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
51	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
52	Counterion coupled (COCO) gemini surfactant capped Ag/Au alloy and core-shell nanoparticles for cancer therapy. <i>RSC Advances</i> , 2019, 9, 37830-37845.	3.6	19
53	Ferulic acid, a natural phenolic compound, as a potential inhibitor for collagen fibril formation and its propagation. <i>International Journal of Biological Macromolecules</i> , 2018, 113, 277-284.	7.5	16
54	Tannery trimming waste based biodegradable bioplastic: Facile synthesis and characterization of properties. <i>Polymer Testing</i> , 2020, 81, 106250.	4.8	16

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55	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
56	5-Fluorouracil-loaded biosynthesised gold nanoparticles for the in vitro treatment of human pancreatic cancer cell. <i>IET Nanobiotechnology</i> , 2019, 13, 824-828.	3.8	15
57	Chromium-free and waterless vegetable-aluminium tanning system for sustainable leather manufacture. <i>Chemical Engineering Journal Advances</i> , 2021, 7, 100108.	5.2	15
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	Method of addition of acetonitrile influences the structure and stability of collagen. <i>Process Biochemistry</i> , 2014, 49, 210-216.	3.7	14
60	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
61	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
62	Cleaner tanning process for the manufacture of upper leathers. <i>Clean Technologies and Environmental Policy</i> , 2010, 12, 381-388.	4.1	12
63	Ferulic acid-loaded collagen hydrolysate and polycaprolactone nanofibres for tissue engineering applications. <i>IET Nanobiotechnology</i> , 2020, 14, 202-209.	3.8	12
64	Differential behavior of native and denatured collagen in the presence of alcoholic solvents: A gateway to instant structural analysis. <i>International Journal of Biological Macromolecules</i> , 2017, 102, 1156-1165.	7.5	11
65	Collagen-silica bio-composite enriched with <i>Cynodon dactylon</i> extract for tissue repair and regeneration. <i>Materials Science and Engineering C</i> , 2018, 92, 297-306.	7.3	11
66	Extraction of bio-active compounds from Ethiopian plant material <i>Rumex abyssinicus</i> (mekmeko) root – A study on kinetics, optimization, antioxidant and antibacterial activity. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2017, 75, 228-239.	5.3	10
67	Chemical/Water-Free Deliming 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
68	N-Vanillynonanamide, 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
69	Cyclic carbonate: A green multifunctional agent for sustainable leather manufacture. <i>Journal of Cleaner Production</i> , 2022, 356, 131818.	9.3	9
70	Ab initio and density functional theory based studies on collagen triplets. <i>Theoretical Chemistry Accounts</i> , 2003, 110, 19-27.	1.4	8
71	Density functional theory calculations on dipeptide-gallic acid interaction. <i>Chemical Physics Letters</i> , 2003, 369, 131-138.	2.6	8
72	Disintegration of collagen fibrils by Glucono- δ -lactone: An implied lead for disintegration of fibrosis. <i>International Journal of Biological Macromolecules</i> , 2018, 107, 175-185.	7.5	8

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73	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
74	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
75	<scp><i>Rumex abyssinicus</i></scp> (mekmeko) extract as cleaner approach for dyeing in product manufacture: Optimization and modeling studies. <i>Asia-Pacific Journal of Chemical Engineering</i> , 2018, 13, e2165.	1.5	6
76	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
77	<i>Rumex abyssinicus</i> (mekmeko): A newer alternative for leather manufacture. <i>Environmental Progress and Sustainable Energy</i> , 2020, 39, e13453.	2.3	5
78	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
79	Leprosy-associated chronic wound management using biomaterials. <i>Journal of Global Infectious Diseases</i> , 2018, 10, 99.	0.5	3
80	A cyclodextrin-based macrocyclic oligosaccharide cavitand 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
81	Phenotypic Screening Identifies Synergistically Acting Natural Product Enhancing the Performance of Biomaterial Based Wound Healing. <i>Frontiers in Pharmacology</i> , 2017, 8, 433.	3.5	2
82	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
83	Supercritical carbon dioxide fiber opening: a new paradigm for cleaner leather manufacture. <i>Clean Technologies and Environmental Policy</i> , 0, , 1.	4.1	0