

# Thanikaivelan Palanisamy

## List of Publications by Year in descending order

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86  
papers

3,202  
citations

172457

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161849

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all docs

86  
docs citations

86  
times ranked

3736  
citing authors

#	ARTICLE	IF	CITATIONS
1	Natural Leathers from Natural Materials:Â Progressing toward a New Arena in Leather Processing. Environmental Science & Technology, 2004, 38, 871-879.	10.0	321
2	Application of quantum chemical descriptor in quantitative structure activity and structure property relationship. Chemical Physics Letters, 2000, 323, 59-70.	2.6	242
3	Synthesis, characterization and thermal studies on cellulose acetate membranes with additive. European Polymer Journal, 2004, 40, 2153-2159.	5.4	199
4	Progress and recent trends in biotechnological methods for leather processing. Trends in Biotechnology, 2004, 22, 181-188.	9.3	189
5	Green synthesis of copper nanoparticles and conducting nanobiocomposites using plant and animal sources. RSC Advances, 2014, 4, 19507.	3.6	146
6	Recent Trends in Leather Making: Processes, Problems, and Pathways. Critical Reviews in Environmental Science and Technology, 2005, 35, 37-79.	12.8	124
7	Fabrication of cellulose acetateâ€“zirconia hybrid membranes for ultrafiltration applications: Performance, structure and fouling analysis. Separation and Purification Technology, 2010, 74, 230-235.	7.9	101
8	Green Route for the Utilization of Chrome Shavings (Chromium-Containing Solid Waste) in Tanning Industry. Environmental Science & Technology, 2002, 36, 1372-1376.	10.0	91
9	Optical Bifunctionality of Europium-Complexed Luminescent Graphene Nanosheets. Nano Letters, 2011, 11, 5227-5233.	9.1	88
10	An improved product-process for cleaner chrome tanning in leather processing. Journal of Cleaner Production, 2001, 9, 483-491.	9.3	87
11	Collagenâ€“poly(dialdehyde) guar gum based porous 3D scaffolds immobilized with growth factor for tissue engineering applications. Carbohydrate Polymers, 2014, 114, 399-406.	10.2	75
12	Thermoresponsive magnetic nanoparticle â€“ Aminated guar gum hydrogel system for sustained release of doxorubicin hydrochloride. Carbohydrate Polymers, 2014, 110, 440-445.	10.2	72
13	Removal of chromium from aqueous solution using cellulose acetate and sulfonated poly(ether) Tj ETQq1 1 0.784314 rgBT /Overlock 12.4 68	12.4	68
14	Transforming collagen wastes into doped nanocarbons for sustainable energy applications. Green Chemistry, 2012, 14, 1689.	9.0	65
15	Chemical reactivity and selectivity using Fukui functions: basis set and population scheme dependence in the framework of B3LYP theory. Theoretical Chemistry Accounts, 2002, 107, 326-335.	1.4	64
16	Green solution for tannery pollution: effect of enzyme based lime-free unhairing and fibre opening in combination with pickle-free chrome tanning. Green Chemistry, 2003, 5, 707.	9.0	58
17	Zero Discharge Tanning:Â A Shift from Chemical to Biocatalytic Leather Processing. Environmental Science & Technology, 2002, 36, 4187-4194.	10.0	54
18	Probing a Bifunctional Luminomagnetic Nanophosphor for Biological Applications: a Photoluminescence and Timeâ€“Resolved Spectroscopic Study. Small, 2011, 7, 1767-1773.	10.0	48

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19	Eco-benign enzymatic dehairing of goatskins utilizing a protease from a <i>Pseudomonas fluorescens</i> species isolated from fish visceral waste. <i>Journal of Cleaner Production</i> , 2012, 25, 27-33.	9.3	46
20	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
21	Approach towards zero discharge tanning: role of concentration on the development of eco-friendly liming&reliming processes. <i>Journal of Cleaner Production</i> , 2003, 11, 79-90.	9.3	37
22	Highly biocompatible collagen&Delonix regia seed polysaccharide hybrid scaffolds for antimicrobial wound dressing. <i>Carbohydrate Polymers</i> , 2016, 137, 584-593.	10.2	35
23	Metal ion separation and protein removal from aqueous solutions using modified cellulose acetate membranes: Role of polymeric additives. <i>Separation and Purification Technology</i> , 2007, 55, 8-15.	7.9	34
24	A chemo-enzymatic pathway leads towards zero discharge tanning. <i>Journal of Cleaner Production</i> , 2007, 15, 1217-1227.	9.3	33
25	Comfort, chemical, mechanical, and structural properties of natural and synthetic leathers used for apparel. <i>Journal of Applied Polymer Science</i> , 2009, 114, 1761-1767.	2.6	32
26	Hybrid Biodegradable Films from Collagenous Wastes and Natural Polymers for Biomedical Applications. <i>Waste and Biomass Valorization</i> , 2011, 2, 323-335.	3.4	32
27	Reversing the Conventional Leather Processing Sequence for Cleaner Leather Production. <i>Environmental Science &amp; Technology</i> , 2006, 40, 1069-1075.	10.0	31
28	Synthesis and Characterization of Hybrid Biodegradable Films From Bovine Hide Collagen and Cellulose Derivatives for Biomedical Applications. <i>Soft Materials</i> , 2013, 11, 181-194.	1.7	31
29	Conversion of Industrial Bio-Waste into Useful Nanomaterials. <i>ACS Sustainable Chemistry and Engineering</i> , 2013, 1, 619-626.	6.7	30
30	Conducting Leathers for Smart Product Applications. <i>Industrial &amp; Engineering Chemistry Research</i> , 2014, 53, 18209-18215.	3.7	30
31	A source reduction approach: Integrated bio-based tanning methods and the role of enzymes in dehairing and fibre opening. <i>Clean Technologies and Environmental Policy</i> , 2004, 7, 3-14.	4.1	29
32	Collagen&chitosan biocomposites produced using nanocarbons derived from goatskin waste. <i>Carbon</i> , 2012, 50, 5574-5582.	10.3	28
33	Bioengineered Hybrid Collagen Scaffold Tethered with Silver&Catechin Nanocomposite Modulates Angiogenesis and TGF&lt;i>β</i> Toward Scarless Healing in Chronic Deep Second Degree Infected Burns. <i>Advanced Healthcare Materials</i> , 2020, 9, e2000247.	7.6	27
34	Upcycling sawdust into colorant: Ecofriendly natural dyeing of fabrics with ultrasound assisted dye extract of <i>Pterocarpus indicus</i> Willd.. <i>Industrial Crops and Products</i> , 2021, 171, 113969.	5.2	27
35	Biointervention Makes Leather Processing Greener: An Integrated Cleansing and Tanning System. <i>Environmental Science &amp; Technology</i> , 2003, 37, 2609-2617.	10.0	25
36	Bio-hybrid hydrogel comprising collagen-capped silver nanoparticles and melatonin for accelerated tissue regeneration in skin defects. <i>Materials Science and Engineering C</i> , 2021, 128, 112328.	7.3	25

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37	Performance characterization of cellulose acetate and poly(vinylpyrrolidone) blend membranes. <i>Journal of Applied Polymer Science</i> , 2007, 104, 3042-3049.	2.6	24
38	Fabrication and Characterization of CA/PSf/SPEEK Ternary Blend Ultrafiltration Membranes. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 1488-1494.	3.7	23
39	A ZnO@curcumin nanocomposite embedded hybrid collagen scaffold for effective scarless skin regeneration in acute burn injury. <i>Journal of Materials Chemistry B</i> , 2019, 7, 5873-5886.	5.8	22
40	A Facile Approach to Fabricate Dual Purpose Hybrid Materials for Tissue Engineering and Water Remediation. <i>Scientific Reports</i> , 2019, 9, 1040.	3.3	20
41	Pickle-free chrome tanning using a polymeric synthetic tanning agent for cleaner leather processing. <i>Clean Technologies and Environmental Policy</i> , 2004, 6, 243.	4.1	19
42	Biomimetic hybrid porous scaffolds immobilized with platelet derived growth factor promote cellularization and vascularization in tissue engineering. <i>Journal of Biomedical Materials Research - Part A</i> , 2016, 104, 388-396.	4.0	18
43	Bi-functional iron embedded carbon nanostructures from collagen waste for photocatalysis and Li-ion battery applications: A waste to wealth approach. <i>Journal of Cleaner Production</i> , 2019, 210, 190-199.	9.3	18
44	Silicate Enhanced Enzymatic Dehairing: A New Lime-Sulfide-Free Process for Cowhides. <i>Environmental Science &amp; Technology</i> , 2005, 39, 3776-3783.	10.0	17
45	Waterless tanning: chrome tanning in ethanol and its derivatives. <i>RSC Advances</i> , 2015, 5, 66815-66823.	3.6	17
46	Melatonin in functionalized biomimetic constructs promotes rapid tissue regeneration in Wistar albino rats. <i>Journal of Materials Chemistry B</i> , 2016, 4, 5850-5862.	5.8	17
47	Bifunctional Hybrid Composites from Collagen Biowastes for Heterogeneous Applications. <i>ACS Omega</i> , 2017, 2, 5260-5270.	3.5	17
48	An eco-friendly option for less-chrome and dye-free leather processing: in situ generation of natural colours in leathers tanned with Cr-Fe complex. <i>Clean Technologies and Environmental Policy</i> , 2002, 4, 115-121.	4.1	16
49	Structural and Thermal Investigations of Biomimetically Grown Casein-Soy Hybrid Protein Fibers. <i>Applied Biochemistry and Biotechnology</i> , 2011, 163, 247-257.	2.9	16
50	Electrically conducting nanobiocomposites using carbon nanotubes and collagen waste fibers. <i>Materials Chemistry and Physics</i> , 2015, 157, 8-15.	4.0	15
51	In vitro probing of oxidized inulin cross-linked collagen-ZrO <sub>2</sub> hybrid scaffolds for tissue engineering applications. <i>Carbohydrate Polymers</i> , 2022, 289, 119458.	10.2	15
52	Bionic, porous, functionalized hybrid scaffolds with vascular endothelial growth factor promote rapid wound healing in Wistar albino rats. <i>RSC Advances</i> , 2016, 6, 19252-19264.	3.6	14
53	Probing visible light induced photochemical stabilization of collagen in green solvent medium. <i>International Journal of Biological Macromolecules</i> , 2019, 131, 779-786.	7.5	14
54	Development of formaldehyde-free leathers in the perspective of retanning: part II. Combination of formaldehyde-free retanning syntans. <i>Clean Technologies and Environmental Policy</i> , 2008, 10, 287-294.	4.1	13

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55	Transforming chromium containing collagen wastes into flexible composite sheets using cellulose derivatives: Structural, thermal, and mechanical investigations. <i>Polymer Composites</i> , 2011, 32, 1009-1017.	4.6	13
56	Investigations on Structural, Mechanical, and Thermal Properties of Pineapple Leaf Fiber-Based Fabrics and Cow Softy Leathers: An Approach Toward Making Amalgamated Leather Products. <i>Journal of Natural Fibers</i> , 2012, 9, 37-50.	3.1	13
57	Magnetic collagen fibers stabilized using functional iron oxide nanoparticles in non-aqueous medium. <i>RSC Advances</i> , 2015, 5, 20939-20944.	3.6	13
58	Conducting collagen-polypyrrole hybrid aerogels made from animal skin waste. <i>RSC Advances</i> , 2016, 6, 63071-63077.	3.6	13
59	Synthesis of magnetic Fe-Cr bimetallic nanoparticles from industrial effluents for smart material applications. <i>Materials Chemistry and Physics</i> , 2020, 253, 123405.	4.0	13
60	Sodium Metasilicate Based Fiber Opening for Greener Leather Processing. <i>Environmental Science &amp; Technology</i> , 2008, 42, 1731-1739.	10.0	12
61	Preparation and Characterization of Composite Sheets from Collagenous and Chromium-Collagen Complex Wastes Using Polyvinylpyrrolidone: Two Problems, One Solution. <i>Waste and Biomass Valorization</i> , 2010, 1, 347-355.	3.4	11
62	Preparation and characterization of poly (methyl methacrylate) and sulfonated poly (ether ether) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 4 <i>Engineering C</i> , 2009, 29, 246-252.	7.3	10
63	Bimetallic Copper-Iron Oxide Nanoparticle-Coated Leathers for Lighting Applications. <i>ACS Applied Nano Materials</i> , 2021, 4, 4055-4069.	5.0	10
64	Integrated hair removal and fiber opening process using mixed enzymes. <i>Clean Technologies and Environmental Policy</i> , 2007, 9, 61-68.	4.1	9
65	Concurrent genesis of color and electrical conductivity in leathers through <i>in situ</i> polymerization of aniline for smart product applications. <i>Polymers for Advanced Technologies</i> , 2015, 26, 521-527.	3.2	9
66	Highly clean and efficient enzymatic dehairing in green solvents. <i>Journal of Cleaner Production</i> , 2017, 140, 1578-1586.	9.3	9
67	Green Synthesis and Characterization of Hybrid Collagen-Cellulose-Albumin Biofibers from Skin Waste. <i>Applied Biochemistry and Biotechnology</i> , 2013, 171, 1500-1512.	2.9	8
68	Magnetic leathers. <i>RSC Advances</i> , 2016, 6, 6496-6503.	3.6	8
69	Visible-light active collagen-TiO <sub>2</sub> nanobio-sponge for water remediation: A sustainable approach. <i>Cleaner Materials</i> , 2021, 1, 100011.	5.1	8
70	Prodigiosin-Iron-Oxide-Carbon Matrix for Efficient Antibiotic-Resistant Bacterial Disinfection of Contaminated Water. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 3164-3175.	6.7	7
71	Silica microsphere-resorcinol composite embedded collagen scaffolds impart scar-less healing of chronic infected burns in type-I diabetic and non-diabetic rats. <i>Biomaterials Science</i> , 2020, 8, 1622-1637.	5.4	7
72	A one-bath chrome tanning together with wet-finishing process for reduced water usage and discharge. <i>Clean Technologies and Environmental Policy</i> , 2005, 7, 168-176.	4.1	6

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73	Gauge length effect on the tensile properties of leather. <i>Journal of Applied Polymer Science</i> , 2006, 101, 1202-1209.	2.6	6
74	Studies on Permeation, Rejection, and Transport of Aqueous Poly(ethylene Glycol) Solutions using Ultrafiltration Membranes. <i>Separation Science and Technology</i> , 2007, 42, 963-978.	2.5	5
75	Chemical degradation of melanin in enzyme based dehairing and fiber opening of buff calfskins. <i>Clean Technologies and Environmental Policy</i> , 2009, 11, 299-306.	4.1	5
76	Nanobiocomposite from Collagen Waste Using Iron Oxide Nanoparticles and Its Conversion Into Magnetic Nanocarbon. <i>Journal of Nanoscience and Nanotechnology</i> , 2015, 15, 4504-4509.	0.9	5
77	Delimiting water in the chromium-induced stabilization of collagen. <i>Journal of Cleaner Production</i> , 2015, 87, 567-572.	9.3	4
78	Glycine functionalized alumina nanoparticles stabilize collagen in ethanol medium. <i>Bulletin of Materials Science</i> , 2016, 39, 223-228.	1.7	4
79	Factors influencing activity of enzymes and their kinetics. <i>Applied Biochemistry and Biotechnology</i> , 2007, 136, 265-278.	2.9	3
80	Sulfonated poly(ether ether ketone)-induced porous poly(ether sulfone) blend membranes for the separation of proteins and metal ions. <i>Journal of Applied Polymer Science</i> , 2010, 116, 995-1004.	2.6	3
81	Modulating Chromium Containing Leather Wastes into Improved Composite Sheets Using Polydimethylsiloxane. <i>Polymers and Polymer Composites</i> , 2011, 19, 497-504.	1.9	2
82	Cool garment leathers for hot environment. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 135, 3289-3295.	3.6	2
83	Physico-chemical studies of elastic compliance and adsorption of DOPC vesicles and its mixture with charged lipids at fluid/solid interface. <i>Colloids and Surfaces B: Biointerfaces</i> , 2021, 199, 111544.	5.0	2
84	Non-aqueous green solvents improve alpha-amylase induced fiber opening in leather processing. <i>Scientific Reports</i> , 2020, 10, 22274.	3.3	2
85	Elastic compliance and adsorption profiles of Bovine serum albumin at fluid/solid interface in the presence of electrolytes. <i>Biophysical Chemistry</i> , 2021, 269, 106523.	2.8	1
86	Hybrid composites using natural polymer blends and carbon nanostructures. , 2017, , 57-74.		0