

# Keratin: Structure, mechanical properties, occurrence i efforts at bioinspiration

Progress in Materials Science

76, 229-318

DOI: [10.1016/j.pmatsci.2015.06.001](https://doi.org/10.1016/j.pmatsci.2015.06.001)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Hydration affects the physical and mechanical properties of baleen tissue. Royal Society Open Science, 2016, 3, 160591.	1.1	17
2	3D Printing of Hierarchical Silk Fibroin Structures. ACS Applied Materials & Interfaces, 2016, 8, 34677-34685.	4.0	71
3	Pangolin armor: Overlapping, structure, and mechanical properties of the keratinous scales. Acta Biomaterialia, 2016, 41, 60-74.	4.1	109
4	Enhanced protective role in materials with gradient structural orientations: Lessons from Nature. Acta Biomaterialia, 2016, 44, 31-40.	4.1	73
5	Programming Performance of Wool Keratin and Silk Fibroin Composite Materials by Mesoscopic Molecular Network Reconstruction. Advanced Functional Materials, 2016, 26, 9032-9043.	7.8	75
6	Structural studies and macro-performances of hydroxyapatite-reinforced keratin thin films for biological applications. Journal of Materials Science, 2016, 51, 9573-9588.	1.7	12
7	Solving conflicting functional requirements by hierarchical structuring—Examples from biological materials. MRS Bulletin, 2016, 41, 667-671.	1.7	24
8	Self-Organized 3D Porous Graphene Dual-Doped with Biomass-Sponsored Nitrogen and Sulfur for Oxygen Reduction and Evolution. ACS Applied Materials & Interfaces, 2016, 8, 29408-29418.	4.0	143
9	Structure and mechanical behaviors of protective armored pangolin scales and effects of hydration and orientation. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 56, 165-174.	1.5	44
10	Water-assisted self-healing and property recovery in a natural dermal armor of pangolin scales. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 56, 14-22.	1.5	20
11	Quantitative Change in Disulfide Bonds and Microstructure Variation of Regenerated Wool Keratin from Various Ionic Liquids. ACS Sustainable Chemistry and Engineering, 2017, 5, 2614-2622.	3.2	54
12	Rotation of hard particles in a soft matrix. Journal of the Mechanics and Physics of Solids, 2017, 101, 285-310.	2.3	24
13	Effect of animal products and extracts on wound healing promotion in topical applications: a review. Journal of Biomaterials Science, Polymer Edition, 2017, 28, 703-729.	1.9	25
14	Protection mechanisms of the carapace of a box turtle. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 71, 54-67.	1.5	11
15	The turtle carapace as an optimized multi-scale biological composite armor — A review. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 73, 50-67.	1.5	48
16	The hierarchical structure and mechanical performance of a natural nanocomposite material: The turtle shell. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 520, 97-104.	2.3	15
17	Surface protection in bio-shields via a functional soft skin layer: Lessons from the turtle shell. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 73, 68-75.	1.5	19
18	The structure of the “amorphous” matrix of keratins. Journal of Structural Biology, 2017, 198, 116-123.	1.3	30

#	ARTICLE	IF	CITATIONS
19	Extreme lightweight structures: avian feathers and bones. <i>Materials Today</i> , 2017, 20, 377-391.	8.3	104
20	Failure of flight feathers under uniaxial compression. <i>Materials Science and Engineering C</i> , 2017, 78, 923-931.	3.8	10
21	Functional gradients and heterogeneities in biological materials: Design principles, functions, and bioinspired applications. <i>Progress in Materials Science</i> , 2017, 88, 467-498.	16.0	554
22	Wool keratin film plasticized by citric acid for food packaging. <i>Food Packaging and Shelf Life</i> , 2017, 12, 100-106.	3.3	55
23	A review of terrestrial, aerial and aquatic keratins: the structure and mechanical properties of pangolin scales, feather shafts and baleen plates. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 76, 4-20.	1.5	27
24	Artificially Engineered Protein Polymers. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2017, 8, 549-575.	3.3	73
25	Development and characterization of bacterial cellulose produced by cashew tree residues as alternative carbon source. <i>Industrial Crops and Products</i> , 2017, 107, 13-19.	2.5	87
26	Effects of water content on the dissolution behavior of wool keratin using 1-ethyl-3-methylimidazolium dimethylphosphate. <i>Science China Chemistry</i> , 2017, 60, 934-941.	4.2	21
27	Lamellae spatial distribution modulates fracture behavior and toughness of african pangolin scales. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 76, 30-37.	1.5	12
28	Failure retardation in body armor. <i>Bioinspired, Biomimetic and Nanobiomaterials</i> , 2017, 6, 37-50.	0.7	3
29	Peptide-protein interactions within human hair keratins. <i>International Journal of Biological Macromolecules</i> , 2017, 101, 805-814.	3.6	17
30	Programming function into mechanical forms by directed assembly of silk bulk materials. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 451-456.	3.3	78
31	Structure and mechanical behavior of human hair. <i>Materials Science and Engineering C</i> , 2017, 73, 152-163.	3.8	112
32	Light Like a Feather: A Fibrous Natural Composite with a Shape Changing from Round to Square. <i>Advanced Science</i> , 2017, 4, 1600360.	5.6	27
33	Hierarchical structure and compressive deformation mechanisms of bighorn sheep ( <i>Ovis canadensis</i> ) horn. <i>Acta Biomaterialia</i> , 2017, 64, 1-14.	4.1	60
34	Static flexural properties of hedgehog spines conditioned in coupled temperature and relative humidity environments. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 75, 413-422.	1.5	14
35	Viscoelastic properties of $\alpha$ -keratin fibers in hair. <i>Acta Biomaterialia</i> , 2017, 64, 15-28.	4.1	28
36	Mesoscopic Functionalization of Silk Fibroin with Gold Nanoclusters Mediated by Keratin and Bioinspired Silk Synapse. <i>Small</i> , 2017, 13, 1702390.	5.2	76

#	ARTICLE	IF	CITATIONS
37	Effect of a peptide in cosmetic formulations for hair volume control. <i>International Journal of Cosmetic Science</i> , 2017, 39, 600-609.	1.2	10
38	Physicochemical properties of novel methyl 2-[(E)-[(2-hydroxynaphthalen-1-yl)methylidene]amino]-4,5,6,7-tetrahydro-1-benzothiophene-3-carboxylate as turn-off fluorometric chemosensor for detection Fe <sup>3+</sup> ion. <i>Journal of Molecular Liquids</i> , 2017, 243, 85-90.	2.3	29
39	Transcriptomic response to thermal and salinity stress in introduced and native sympatric Palaemon caridean shrimps. <i>Scientific Reports</i> , 2017, 7, 13980.	1.6	14
40	Degradation and regeneration of feather keratin in NMMO solution. <i>Environmental Science and Pollution Research</i> , 2017, 24, 17711-17718.	2.7	14
41	Development and assessment of a functional activated fore-modified bio-hydrochar for amoxicillin removal. <i>Bioresource Technology</i> , 2017, 246, 168-175.	4.8	24
42	Feather keratin hydrogel for wound repair: Preparation, healing effect and biocompatibility evaluation. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017, 149, 341-350.	2.5	140
43	Moisture, anisotropy, stress state, and strain rate effects on bighorn sheep horn keratin mechanical properties. <i>Acta Biomaterialia</i> , 2017, 48, 300-308.	4.1	45
44	Seagull feather shaft: Correlation between structure and mechanical response. <i>Acta Biomaterialia</i> , 2017, 48, 270-288.	4.1	31
45	Tunable wettability and tensile strength of chitosan membranes using keratin microparticles as reinforcement. <i>Journal of Applied Polymer Science</i> , 2017, 134, .	1.3	8
46	Evaluation of keratin extraction from wool by chemical methods for bio-polymer application. <i>Journal of Bioactive and Compatible Polymers</i> , 2017, 32, 163-177.	0.8	68
47	Advances in Microbial Keratinase and Its Potential Applications. , 2017, , 105-133.		4
48	A Review of the State of Dry Adhesives: Biomimetic Structures and the Alternative Designs They Inspire. <i>Micromachines</i> , 2017, 8, 125.	1.4	59
49	Cancerous domains: comprehensive analysis of cancer type-specific recurrent somatic mutations in proteins and domains. <i>BMC Bioinformatics</i> , 2017, 18, 370.	1.2	8
50	Naturally-derived biopolymer nanocomposites: Interfacial design, properties and emerging applications. <i>Materials Science and Engineering Reports</i> , 2018, 125, 1-41.	14.8	182
51	Revisiting the problem of a 2D infinite elastic isotropic medium with a rigid inclusion or a cavity. <i>International Journal of Engineering Science</i> , 2018, 126, 68-96.	2.7	11
52	Bioplastic based on 1,8-octanediol plasticized feather keratin: A material for food packaging and biomedical applications. <i>Journal of Applied Polymer Science</i> , 2018, 135, 46516.	1.3	9
53	Armours for soft bodies: how far can bioinspiration take us?. <i>Bioinspiration and Biomimetics</i> , 2018, 13, 041004.	1.5	27
54	Flexural deformation and fracture behaviors of bamboo with gradient hierarchical fibrous structure and water content. <i>Composites Science and Technology</i> , 2018, 157, 126-133.	3.8	61

#	ARTICLE	IF	CITATIONS
55	Size-controlled, colloidally stable and functional nanoparticles based on the molecular assembly of green tea polyphenols and keratins for cancer therapy. <i>Journal of Materials Chemistry B</i> , 2018, 6, 1373-1386.	2.9	56
56	Solubilization of keratins and functional properties of their isolates and hydrolysates. <i>Journal of Food Biochemistry</i> , 2018, 42, e12494.	1.2	37
57	Natural Origin Materials for Osteochondral Tissue Engineering. <i>Advances in Experimental Medicine and Biology</i> , 2018, 1058, 3-30.	0.8	15
58	Fabrication of regenerated wool keratin/polycaprolactone nanofiber membranes for cell culture. <i>International Journal of Biological Macromolecules</i> , 2018, 114, 1168-1173.	3.6	38
59	Development of keratin nanoparticles for controlled gastric mucoadhesion and drug release. <i>Journal of Nanobiotechnology</i> , 2018, 16, 24.	4.2	57
60	The Hair Follicle: An Underutilized Source of Cells and Materials for Regenerative Medicine. <i>ACS Biomaterials Science and Engineering</i> , 2018, 4, 1193-1207.	2.6	28
61	Valorization of keratin based waste. <i>Chemical Engineering Research and Design</i> , 2018, 115, 85-98.	2.7	58
62	Assessment of cellular and serum proteome from tongue squamous cell carcinoma patient lacking addictive proclivities for tobacco, betel nut, and alcohol: Case study. <i>Journal of Cellular Biochemistry</i> , 2018, 119, 5186-5221.	1.2	20
63	Applicability of Crude Glycerol as the Multifunctional Additive for the Preparation of Mulching Coatings. <i>Waste and Biomass Valorization</i> , 2018, 9, 1855-1865.	1.8	4
64	Post-assembly $\alpha$ -helix to $\beta$ -sheet structural transformation within SAF-p1/p2a peptide nanofibers. <i>Soft Matter</i> , 2018, 14, 8986-8996.	1.2	12
65	SLN- and NLC-Encapsulating Antifungal Agents: Skin Drug Delivery and their Unexplored Potential for Treating Onychomycosis. <i>Current Pharmaceutical Design</i> , 2018, 23, 6684-6695.	0.9	16
66	Identification of Matrix Metalloproteinase-1-Suppressive Peptides in Feather Keratin Hydrolysate. <i>Journal of Agricultural and Food Chemistry</i> , 2018, 66, 12719-12729.	2.4	21
67	Calcium evaluation of human fingernail using laser plasma spectroscopy by simultaneously applying addition and modified external standardizations. <i>Journal of Theoretical and Applied Physics</i> , 2018, 12, 319-326.	1.4	0
68	Effects of structural gradient characteristics of yak horn on its mechanical properties. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 439, 042002.	0.3	1
69	Design and Preparation of Biomass-Derived Carbon Materials for Supercapacitors: A Review. <i>Journal of Carbon Research</i> , 2018, 4, 53.	1.4	52
70	Benefits of Renewable Hydrogels over Acrylate- and Acrylamide-Based Hydrogels. <i>Polymers and Polymeric Composites</i> , 2018, , 1-47.	0.6	1
71	Advances in Protein-Based Materials: From Origin to Novel Biomaterials. <i>Advances in Experimental Medicine and Biology</i> , 2018, 1078, 161-210.	0.8	30
72	Recent Progress in Biomimetic Additive Manufacturing Technology: From Materials to Functional Structures. <i>Advanced Materials</i> , 2018, 30, e1706539.	11.1	325

#	ARTICLE	IF	CITATIONS
73	Selective Elimination of the Key Subunit Interfaces Facilitates Conversion of Native 24-mer Protein Nanocage into 8-mer Nanorings. <i>Journal of the American Chemical Society</i> , 2018, 140, 14078-14081.	6.6	27
74	Epiplasts: Membrane Skeletons and Epiplastin Proteins in Euglenids, Glaucophytes, Cryptophytes, Ciliates, Dinoflagellates, and Apicomplexans. <i>MBio</i> , 2018, 9, .	1.8	23
75	How do baleen whales stow their filter? A comparative biomechanical analysis of baleen bending. <i>Journal of Experimental Biology</i> , 2018, 221, .	0.8	10
76	Borrowing From Nature: Biopolymers and Biocomposites as Smart Wound Care Materials. <i>Frontiers in Bioengineering and Biotechnology</i> , 2018, 6, 137.	2.0	137
77	Feathers as bioresource: Microbial conversion into bioactive protein hydrolysates. <i>Process Biochemistry</i> , 2018, 75, 1-9.	1.8	41
78	Humidity Sensor Based on Keratin bio Polymer Film. <i>Sensors and Actuators A: Physical</i> , 2018, 282, 132-141.	2.0	40
79	Humidity Induces Changes in the Dimensions of Hydrogel-Coated Wool Yarns. <i>Polymers</i> , 2018, 10, 260.	2.0	8
80	Enrichment and characterization of an environmental microbial consortium displaying efficient keratinolytic activity. <i>Bioresource Technology</i> , 2018, 270, 303-310.	4.8	42
81	Hydration-Induced Shape and Strength Recovery of the Feather. <i>Advanced Functional Materials</i> , 2018, 28, 1801250.	7.8	13
82	Preparation and Characterization of Keratin/Alginate Blend Microparticles. <i>Advances in Materials Science and Engineering</i> , 2018, 2018, 1-8.	1.0	5
83	Novel Eco-Friendly Method to Extract Keratin from Hair. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 12268-12274.	3.2	30
84	Cellular Helmet Liner Design through Bio-inspired Structures and Topology Optimization of Compliant Mechanism Lattices. <i>SAE International Journal of Transportation Safety</i> , 0, 6, 217-235.	0.4	27
85	Instructive proteins for tissue regeneration. , 2018, , 23-49.		6
86	A comparative analysis of the avian skull: Woodpeckers and chickens. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 84, 273-280.	1.5	12
87	Feasibility Study of Selecting Soft Components of Body Armor. <i>Key Engineering Materials</i> , 2018, 775, 32-35.	0.4	0
88	Cellulose/keratin-catechin nanocomposite hydrogel for wound hemostasis. <i>Journal of Materials Chemistry B</i> , 2018, 6, 6133-6141.	2.9	49
89	On the Materials Science of Nature's Arms Race. <i>Advanced Materials</i> , 2018, 30, e1705220.	11.1	63
90	Biochemical and proteomic characterization of the extracellular enzymatic preparate of <i>Exiguobacterium undae</i> , suitable for efficient animal glue removal. <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 6525-6536.	1.7	12

#	ARTICLE	IF	CITATIONS
91	Unravalled keratin-derived biopolymers as novel biosorbents for the simultaneous removal of multiple trace metals from industrial wastewater. <i>Science of the Total Environment</i> , 2019, 647, 1539-1546.	3.9	54
92	Chicken feather rachis: An improvement over feather fiber derived electrocatalyst for oxygen electroreduction. <i>Applied Surface Science</i> , 2019, 495, 143603.	3.1	27
93	Lysozyme-Assisted Photothermal Eradication of Methicillin-Resistant <i>Staphylococcus aureus</i> Infection and Accelerated Tissue Repair with Natural Melanosome Nanostructures. <i>ACS Nano</i> , 2019, 13, 11153-11167.	7.3	74
94	Primary and Secondary Mesoscopic Hybrid Materials of Au Nanoparticles@Silk Fibroin and Applications. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 30125-30136.	4.0	18
95	FABRICATION OF NANOFIBRES BY ELECTROSPINNING USING KERATIN FROM WASTE CHICKEN FEATHERS, PVA AND AgNPs. <i>International Journal of Pharmacy and Pharmaceutical Sciences</i> , 2019, , 78-84.	0.3	3
96	Nanostructured Green Biopolymer Composites for Orthopedic Application. <i>Materials Horizons</i> , 2019, , 159-190.	0.3	4
97	Measuring the flexibility matrix of an eagle's flight feather and a method to estimate the stiffness distribution. <i>Chinese Physics B</i> , 2019, 28, 074703.	0.7	1
98	A novel unhairing enzyme produced by heterologous expression of keratinase gene ( <i>kerT</i> ) in <i>Bacillus subtilis</i> . <i>World Journal of Microbiology and Biotechnology</i> , 2019, 35, 122.	1.7	11
99	Beyond plucking: Feathers bioprocessing into valuable protein hydrolysates. <i>Waste Management</i> , 2019, 95, 399-415.	3.7	64
100	Multiscale Toughening Mechanisms in Biological Materials and Bioinspired Designs. <i>Advanced Materials</i> , 2019, 31, e1901561.	11.1	342
101	Tough and Functional Cross-linked Bioplastics from Sheep Wool Keratin. <i>Scientific Reports</i> , 2019, 9, 14810.	1.6	44
102	Research progress on resource utilization of leather solid waste. <i>Journal of Leather Science and Engineering</i> , 2019, 1, .	2.7	67
103	Creating artificial Rhino Horns from Horse Hair. <i>Scientific Reports</i> , 2019, 9, 16233.	1.6	10
104	Uniqueness of meromorphic solutions of the difference equation $R_1(z)f(z+1)+R_2(z)f(z)=R_3(z)$ . <i>Advances in Difference Equations</i> , 2019, 2019, .	3.5	1
105	Green Composite Materials from Biopolymers Reinforced with Agroforestry Waste. <i>Journal of Polymers and the Environment</i> , 2019, 27, 2651-2673.	2.4	34
106	Overview of Protein-Based Biopolymers for Biomedical Application. <i>Macromolecular Chemistry and Physics</i> , 2019, 220, 1900126.	1.1	50
107	Bioinspirational understanding of flexural performance in hedgehog spines. <i>Acta Biomaterialia</i> , 2019, 94, 553-564.	4.1	12
108	Biological growth and synthetic fabrication of structurally colored materials. <i>Journal of Optics (United Kingdom)</i> , 2019, 21, 073001.	1.0	37

#	ARTICLE	IF	CITATIONS
109	A comprehensive review of selected biological armor systems " From structure-function to bio-mimetic techniques. Composite Structures, 2019, 225, 111172.	3.1	21
110	Scaffolds for lung tissue engineering. , 2019, , 427-448.		5
111	One-Pot Synthesis of Chicken-Feather-Keratin-Based Prodrug Nanoparticles with High Drug Content for Tumor Intracellular DOX Delivery. Langmuir, 2019, 35, 8007-8014.	1.6	23
112	The Early Origin of Feathers. Trends in Ecology and Evolution, 2019, 34, 856-869.	4.2	47
113	Effective biodegradation of chicken feather waste by co-cultivation of keratinase producing strains. Microbial Cell Factories, 2019, 18, 84.	1.9	63
114	Modification of bacterial cellulose/keratin nanofibrous mats by a tragacanth gum-conjugated hydrogel for wound healing. International Journal of Biological Macromolecules, 2019, 134, 280-289.	3.6	52
115	Using Wool Keratin as a Basic Resist Material to Fabricate Precise Protein Patterns. Advanced Materials, 2019, 31, e1900870.	11.1	54
116	Horse hoof inspired biomimetic structure for improved damage tolerance and crack diversion. Composite Structures, 2019, 220, 362-370.	3.1	17
117	Highly polydisperse keratin rich nanofibers: Scaffold design and <i>in vitro</i> characterization. Journal of Biomedical Materials Research - Part A, 2019, 107, 1803-1813.	2.1	41
118	Isolation and characterization of a newly keratinase producing Bacillus sp N1 from tofu liquid waste. IOP Conference Series: Earth and Environmental Science, 2019, 230, 012088.	0.2	2
119	Keratin Waste Recycling Based on Microbial Degradation: Mechanisms and Prospects. ACS Sustainable Chemistry and Engineering, 2019, 7, 9727-9736.	3.2	47
120	How Water Can Affect Keratin: Hydration-Driven Recovery of Bighorn Sheep ( Ovis Canadensis ) Horns. Advanced Functional Materials, 2019, 29, 1901077.	7.8	29
121	Keratin-based matrices from wool fibers and human hair. , 2019, , 375-403.		5
122	A comprehensive and comparative study of the internal structure and dynamics of natural keratin and regenerated keratin and regenerated keratin. $\int^2$	1.5	25
123	Thermal Conductivity of Protein-Based Materials: A Review. Polymers, 2019, 11, 456.	2.0	38
124	An integrated strategy for the effective production of bristle protein hydrolysate by the keratinolytic filamentous bacterium Amycolatopsis keratiniphila D2. Waste Management, 2019, 89, 94-102.	3.7	18
125	Crystallization of cross-linked polyethylene by molecular dynamics simulation. Polymer, 2019, 171, 80-86.	1.8	47
126	A natural energy absorbent polymer composite: The equine hoof wall. Acta Biomaterialia, 2019, 90, 267-277.	4.1	47



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127	Recent developments in biomass-derived carbon as a potential sustainable material for super-capacitor-based energy storage and environmental applications. <i>Journal of Analytical and Applied Pyrolysis</i> , 2019, 140, 54-85.	2.6	118
128	Sodium alginate/feather keratin-g-allyloxy polyethylene glycol composite phase change fiber. <i>International Journal of Biological Macromolecules</i> , 2019, 131, 192-200.	3.6	17
129	Tunable keratin hydrogel based on disulfide shuffling strategy for drug delivery and tissue engineering. <i>Journal of Colloid and Interface Science</i> , 2019, 544, 121-129.	5.0	55
130	Squid-Inspired Tandem Repeat Proteins: Functional Fibers and Films. <i>Frontiers in Chemistry</i> , 2019, 7, 69.	1.8	46
131	Influences of diffusion coefficient of 1-allyl-3-methylimidazolium chloride on structure and properties of regenerated cellulose fiber obtained via dry-jet-wet spinning. <i>Journal of Applied Polymer Science</i> , 2019, 136, 47609.	1.3	9
132	Production, purification and characterization of a proteolytic enzyme from <i>Streptomyces</i> sp. 2M21. <i>Biocatalysis and Biotransformation</i> , 2019, 37, 377-387.	1.1	5
133	Some Properties of Electron Beam-Irradiated Sheep Wool Linked to Cr(III) Sorption. <i>Molecules</i> , 2019, 24, 4401.	1.7	11
134	How localized force spreads on elastic contour feathers. <i>Journal of the Royal Society Interface</i> , 2019, 16, 20190267.	1.5	7
135	Biological Material Interfaces as Inspiration for Mechanical and Optical Material Designs. <i>Chemical Reviews</i> , 2019, 119, 12279-12336.	23.0	121
136	The what, why and how of curly hair: a review. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2019, 475, 20190516.	1.0	12
137	Progress in Microbial Degradation of Feather Waste. <i>Frontiers in Microbiology</i> , 2019, 10, 2717.	1.5	72
138	Effect of Microwave or Ultrasound Irradiation in the Extraction from Feather Keratin. <i>Journal of Chemistry</i> , 2019, 2019, 1-9.	0.9	7
139	Effect of Keratin Fibers on Setting and Hydration Characteristics of Portland Cement. <i>Journal of Natural Fibers</i> , 2019, , 1-8.	1.7	6
140	Study of keratin hair of domestic cat under methionine and cystine experimental diet using FT-Raman spectroscopy. <i>Vibrational Spectroscopy</i> , 2019, 100, 1-5.	1.2	2
141	Keratin as a Protein Biopolymer. <i>Springer Series on Polymer and Composite Materials</i> , 2019, , .	0.5	44
142	Lessons from the Ocean: Whale Baleen Fracture Resistance. <i>Advanced Materials</i> , 2019, 31, e1804574.	11.1	40
143	Degradation of Keratin Biomass by Different Microorganisms. <i>Springer Series on Polymer and Composite Materials</i> , 2019, , 123-162.	0.5	16
144	Keratin Production and Its Applications: Current and Future Perspective. <i>Springer Series on Polymer and Composite Materials</i> , 2019, , 19-34.	0.5	15

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145	Extraction and Characterization of Keratin from Different Biomasses. Springer Series on Polymer and Composite Materials, 2019, , 35-76.	0.5	18
146	Energy absorption of a bio-inspired honeycomb sandwich panel. Journal of Materials Science, 2019, 54, 6286-6300.	1.7	149
147	Benefits of Renewable Hydrogels over Acrylate- and Acrylamide-Based Hydrogels. Polymers and Polymeric Composites, 2019, , 197-243.	0.6	3
148	Multiscale designs of the chitinous nanocomposite of beetle horn towards an enhanced biomechanical functionality. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 91, 278-286.	1.5	6
149	Keratin-Based Biofilms, Hydrogels, and Biofibers. Springer Series on Polymer and Composite Materials, 2019, , 187-200.	0.5	11
150	Disordered Structures in Biology Can Provide Material Properties not Obtained with Precise Hierarchy. Advanced Functional Materials, 2019, 29, 1805734.	7.8	6
151	Keratin as a Biopolymer. Springer Series on Polymer and Composite Materials, 2019, , 163-185.	0.5	14
152	Electrospun nanofiber regulates assembly of keratin and vimentin intermediate filaments of PANC-1 pancreatic carcinoma cells. Materials Science and Engineering C, 2019, 96, 616-624.	3.8	12
153	A more efficient process to develop protein films derived from agro-industrial by-products. Food Hydrocolloids, 2019, 86, 11-17.	5.6	21
154	Imaging techniques for observing laminar geometry in the feather shaft cortex. Journal of Microscopy, 2020, 277, 154-159.	0.8	4
155	Introducing biomaterials for tissue repair and regeneration. , 2020, , 1-27.		4
156	Biowaste derived activated carbon electrocatalyst for oxygen reduction reaction: Effect of chemical activation. International Journal of Hydrogen Energy, 2020, 45, 16930-16943.	3.8	41
157	Processing and thermal characteristics of human hair fiber-reinforced polymer composites. Polymers and Polymer Composites, 2020, 28, 252-264.	1.0	9
158	Microstructure and compression resistance of bean goose ( Anser fabalis ) feather shaft. Microscopy Research and Technique, 2020, 83, 156-164.	1.2	7
159	The assembly of protein-templated gold nanoclusters for enhanced fluorescence emission and multifunctional applications. Acta Biomaterialia, 2020, 101, 436-443.	4.1	23
160	Taphonomic experiments resolve controls on the preservation of melanosomes and keratinous tissues in feathers. Palaeontology, 2020, 63, 103-115.	1.0	22
161	From Poultry Wastes to Quality Protein Products via Restoration of the Secondary Structure with Extended Disulfide Linkages. ACS Sustainable Chemistry and Engineering, 2020, 8, 1396-1405.	3.2	7
162	Effect of hydration on mechanical characteristics of pangolin scales. Journal of Materials Science, 2020, 55, 4420-4436.	1.7	3

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163	A high toughness and light weight armor structure bioinspired design based on a bovine hoof wall. <i>Materials Letters</i> , 2020, 264, 127296.	1.3	7
164	Microbial keratinases: An overview of biochemical characterization and its eco-friendly approach for industrial applications. <i>Journal of Cleaner Production</i> , 2020, 252, 119847.	4.6	55
165	Mitochondrial DNA damage in the hair bulb: can it be used as a noninvasive biomarker of local exposure to low LET ionizing radiation?. <i>International Journal of Radiation Biology</i> , 2020, 96, 491-501.	1.0	1
166	Structural Orientation and Anisotropy in Biological Materials: Functional Designs and Mechanics. <i>Advanced Functional Materials</i> , 2020, 30, 1908121.	7.8	59
167	On the Strength of Hair across Species. <i>Matter</i> , 2020, 2, 136-149.	5.0	18
168	Nail StrainStress Meter NM 100: A novel in vivo method to characterize biomechanical properties of nails. <i>Skin Research and Technology</i> , 2020, 26, 422-430.	0.8	2
169	Highly efficient extraction of large molecular-weight keratin from wool in a water/ethanol co-solvent. <i>Textile Research Journal</i> , 2020, 90, 1084-1093.	1.1	17
170	pH-Activated surface charge-reversal double-crosslinked hyaluronic acid nanogels with feather keratin as multifunctional crosslinker for tumor-targeting DOX delivery. <i>International Journal of Biological Macromolecules</i> , 2020, 150, 1104-1112.	3.6	24
171	Bioinspired structures for core sandwich composites produced by fused deposition modelling. <i>Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications</i> , 2020, 234, 379-393.	0.7	6
172	Keratin Associations with Synthetic, Biosynthetic and Natural Polymers: An Extensive Review. <i>Polymers</i> , 2020, 12, 32.	2.0	66
173	Dynamic crack propagation in the turtle carapace. <i>Mechanics of Materials</i> , 2020, 151, 103614.	1.7	8
174	Exploiting bio-inspired high energy-absorbent metal/ceramic composites through emulsion-ice-templating and melt infiltration. <i>Materialia</i> , 2020, 14, 100884.	1.3	7
175	Regenerated keratin-encapsulated gold nanorods for chemo-photothermal synergistic therapy. <i>Materials Science and Engineering C</i> , 2020, 117, 111340.	3.8	17
176	Once Weekly Application of Urea 40% and Bifonazole 1% Leads to Earlier Nail Removal in Onychomycosis. <i>Skin Appendage Disorders</i> , 2020, 6, 304-308.	0.5	6
177	Solid waste-derived biodegradable keratin sponges for removal of chromium: A circular approach for waste management in leather industry. <i>Environmental Technology and Innovation</i> , 2020, 20, 101120.	3.0	20
178	Enzymatic Extraction of Bioactive and Self-Assembling Wool Keratin for Biomedical Applications. <i>Macromolecular Bioscience</i> , 2020, 20, e2000073.	2.1	27
179	Lightweight, compression-resistant cellular structures inspired from the infructescence of <i>Liquidambar formosana</i> . <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 110, 103961.	1.5	3
180	Waste-based natural fiber reinforcement of adobe mixtures: Physical, mechanical, damage and durability performance assessment. <i>Journal of Cleaner Production</i> , 2020, 273, 122806.	4.6	20

#	ARTICLE	IF	CITATIONS
181	Nanomechanics of Biomaterials “from Cells to Shells. Israel Journal of Chemistry, 2020, 60, 1171-1184.	1.0	7
182	Progress in Modern Marine Biomaterials Research. Marine Drugs, 2020, 18, 589.	2.2	64
183	Fabrication of mechanical robust keratin adsorbent by induced molecular network transition and its dye adsorption performance. Environmental Science and Pollution Research, 2020, 27, 41577-41584.	2.7	6
184	Potential development of poultry feather waste resources as raw material in industry: A review. IOP Conference Series: Earth and Environmental Science, 2020, 492, 012089.	0.2	1
185	Keratin “cinnamon essential oil biocomposite fibrous patches for skin burn care. Materials Advances, 2020, 1, 1805-1816.	2.6	20
186	Transferring feather wastes to ductile keratin filaments towards a sustainable poultry industry. Waste Management, 2020, 115, 65-73.	3.7	25
187	Morphological characterization of flight feather shafts in four bird species with different flight styles. Biological Journal of the Linnean Society, 2020, 131, 192-202.	0.7	4
188	Bioinspired Materials for Wound Healing Application: The Potential of Silk Fibroin. Materials, 2020, 13, 3361.	1.3	50
189	Cysteine and homocysteine as biomarker of various diseases. Food Science and Nutrition, 2020, 8, 4696-4707.	1.5	122
190	Microbial enzymes catalyzing keratin degradation: Classification, structure, function. Biotechnology Advances, 2020, 44, 107607.	6.0	113
191	Structure and Mechanical Adaptability of a Modern Elasmoid Fish Scale from the Common Carp. Matter, 2020, 3, 842-863.	5.0	47
192	Advanced bio-inspired structural materials: Local properties determine overall performance. Materials Today, 2020, 41, 177-199.	8.3	52
193	A review of impact resistant biological and bioinspired materials and structures. Journal of Materials Research and Technology, 2020, 9, 15705-15738.	2.6	96
194	Biopolymer-Waste Fiber Reinforcement for Earthen Materials: Capillary, Mechanical, Impact, and Abrasion Performance. Polymers, 2020, 12, 1819.	2.0	5
195	Biochemical and Molecular Characterization of a Thermostable Alkaline Metallo-Keratinase from Bacillus sp. Nnolim-K1. Microorganisms, 2020, 8, 1304.	1.6	27
196	Biomimetic nuclear lamin fibers with remarkable toughness and stiffness. International Journal of Biological Macromolecules, 2020, 163, 2060-2067.	3.6	4
197	Programming Performance of Silk Fibroin Superstrong Scaffolds by Mesoscopic Regulation among Hierarchical Structures. Biomacromolecules, 2020, 21, 4169-4179.	2.6	14
198	Flexible and Insoluble Artificial Synapses Based on Chemical Cross-Linked Wool Keratin. Advanced Functional Materials, 2020, 30, 2002882.	7.8	42

#	ARTICLE	IF	CITATIONS
199	Growing Medium Type Affects Organic Fertilizer Mineralization and CNPS Microbial Enzyme Activities. <i>Agronomy</i> , 2020, 10, 1955.	1.3	21
200	Chemically Modified Biopolymers for the Formation of Biomedical Hydrogels. <i>Chemical Reviews</i> , 2021, 121, 10908-10949.	23.0	216
201	Microbial Keratinase: Next Generation Green Catalyst and Prospective Applications. <i>Frontiers in Microbiology</i> , 2020, 11, 580164.	1.5	54
202	Reaction Stages of Feather Hydrolysis: Factors That Influence Availability for Enzymatic Hydrolysis and Cystine Conservation during Thermal Pressure Hydrolysis. <i>Biotechnology and Bioprocess Engineering</i> , 2020, 25, 749-757.	1.4	4
203	A new neuropeptide insect parathyroid hormone iPTH in the red flour beetle <i>Tribolium castaneum</i> . <i>PLoS Genetics</i> , 2020, 16, e1008772.	1.5	24
204	Keratin Biomembranes as a Model for Studying Onychomycosis. <i>International Journal of Molecular Sciences</i> , 2020, 21, 3512.	1.8	19
205	Meso- $\mu$ Reconstruction of Wool Keratin 3D $\mu$ Molecular Springs $\mu$ for Tunable Ultra- $\mu$ Sensitive and Highly Recovery Strain Sensors. <i>Small</i> , 2020, 16, e2000128.	5.2	33
206	Folding Keratin Gene Clusters during Skin Regional Specification. <i>Developmental Cell</i> , 2020, 53, 561-576.e9.	3.1	18
207	From fabric to tissue: Recovered wool keratin/polyvinylpyrrolidone biocomposite fibers as artificial scaffold platform. <i>Materials Science and Engineering C</i> , 2020, 116, 111151.	3.8	37
208	Bioinspired Compliance Grading Motif of Mortar in Nacreous Materials. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 33256-33266.	4.0	15
209	Nature-derived materials for the fabrication of functional biodevices. <i>Materials Today Bio</i> , 2020, 7, 100065.	2.6	68
210	Biological and bioinspired materials: Structure leading to functional and mechanical performance. <i>Bioactive Materials</i> , 2020, 5, 745-757.	8.6	89
211	Study on impact resistance behaviors of a novel composite laminate with basalt fiber for helical-sinusoidal bionic structure of dactyl club of mantis shrimp. <i>Composites Part B: Engineering</i> , 2020, 191, 107976.	5.9	36
212	Study of Mechanisms of Recombinant Keratin Solubilization with Enhanced Wound Healing Capability. <i>Chemistry of Materials</i> , 2020, 32, 3122-3133.	3.2	18
213	Adding value to a recalcitrant and problematic waste: the use of dog hair for fungal keratinolytic protease production. <i>Biocatalysis and Biotransformation</i> , 2020, 38, 343-356.	1.1	2
214	<i>Fusarium oxysporum</i> and <i>Aspergillus</i> sp. as Keratinase Producers Using Swine Hair From Agroindustrial Residues. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 71.	2.0	14
215	Natural Fibrous Protein for Advanced Tissue Engineering Applications: Focusing on Silk Fibroin and Keratin. <i>Advances in Experimental Medicine and Biology</i> , 2020, 1249, 39-49.	0.8	11
216	Structure and properties of baleen in the Southern right ( <i>Eubalaena australis</i> ) and Pygmy right whales ( <i>Caperea marginata</i> ). <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 110, 103939.	1.5	3

#	ARTICLE	IF	CITATIONS
217	Nutritional Enhancement of Chicken Feather Waste by <i>Bacillus aerius</i> NSMk2. <i>Indian Journal of Microbiology</i> , 2020, 60, 518-525.	1.5	14
218	Bioinspired Biomaterials. <i>Advances in Experimental Medicine and Biology</i> , 2020, , .	0.8	5
219	Microstructure and mechanical properties of an alpha keratin bovine hoof wall. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 104, 103689.	1.5	8
220	Low-temperature thermal insulation materials with high impact resistance made from feather-fibres. <i>Materials Letters: X</i> , 2020, 6, 100039.	0.3	2
221	Rapunzel! Rapunzel! How Strong Is Your Hair?. <i>Matter</i> , 2020, 2, 16-18.	5.0	0
222	Enzymatic Digestion Coupled to Surfactant-Assisted Dispersive Liquid-Liquid Microextraction: A Mild Approach for Determining Polybrominated Diphenyl Ethers in Human Hair Sample. <i>ChemistrySelect</i> , 2020, 5, 2179-2184.	0.7	2
223	An Analysis of the Sliding Wear Characteristics of Epoxy-Based Hybrid Composites Using Response Surface Method and Neural Computation. <i>Journal of Natural Fibers</i> , 2021, 18, 2077-2091.	1.7	22
224	Biopolymeric photonic structures: design, fabrication, and emerging applications. <i>Chemical Society Reviews</i> , 2020, 49, 983-1031.	18.7	138
225	Keratinous materials: Structures and functions in biomedical applications. <i>Materials Science and Engineering C</i> , 2020, 110, 110612.	3.8	69
226	Mechanical properties and failure deformation mechanisms of yak horn under quasi-static compression and dynamic impact. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 107, 103753.	1.5	8
227	Protein-Based Hydroxyapatite Materials: Tuning Composition toward Biomedical Applications. <i>ACS Applied Bio Materials</i> , 2020, 3, 3441-3455.	2.3	20
228	Design of Sustainable Materials by Cross-linking a Biobased Epoxide with Keratin and Lignin. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 6844-6852.	3.2	11
229	<i>Bacillus</i> sp. FPF-1 Produced Keratinase with High Potential for Chicken Feather Degradation. <i>Molecules</i> , 2020, 25, 1505.	1.7	34
230	Keratin - Based materials for biomedical applications. <i>Bioactive Materials</i> , 2020, 5, 496-509.	8.6	187
231	Formation, structure, and function of extra-skeletal bones in mammals. <i>Biological Reviews</i> , 2020, 95, 986-1019.	4.7	21
232	Insight into the Regulatory Function of Human Hair Keratins in Wound Healing Using Proteomics. <i>Advanced Biology</i> , 2020, 4, e1900235.	3.0	10
233	N-dimensional optics with natural materials. <i>MRS Communications</i> , 2020, 10, 201-214.	0.8	3
234	Biotransformation of keratin waste to amino acids and active peptides based on cell-free catalysis. <i>Biotechnology for Biofuels</i> , 2020, 13, 61.	6.2	41

#	ARTICLE	IF	CITATIONS
235	Citrobacter diversus-derived keratinases and their potential application as detergent-compatible cloth-cleaning agents. Brazilian Journal of Microbiology, 2020, 51, 969-977.	0.8	9
236	Characterization of Anisotropic Human Hair Keratin Scaffolds Fabricated via Directed Ice Templating. Macromolecular Bioscience, 2021, 21, e2000314.	2.1	15
237	Hydration-induced reversible deformation of biological materials. Nature Reviews Materials, 2021, 6, 264-283.	23.3	58
238	Mechanics and hierarchical structure transformation mechanism of wool fibers. Textile Research Journal, 2021, 91, 496-507.	1.1	10
239	Biomaterial microparticles of keratose/collagen blend prepared by a water-in-oil emulsificationâ€“diffusion method. Particulate Science and Technology, 2021, 39, 590-596.	1.1	0
240	Inspiration from Nature's body armours â€“ A review of biological and bioinspired composites. Composites Part B: Engineering, 2021, 205, 108513.	5.9	94
241	Structural elasticity for tensile deformation of a single human hair and the comparison with it for the bending deformation. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 113, 104166.	1.5	7
242	Additive manufacturing of green composites: Poly (lactic acid) reinforced with keratin materials obtained from Angora rabbit hair. Journal of Applied Polymer Science, 2021, 138, 50321.	1.3	6
243	Metagenomic analysis of a keratin-degrading bacterial consortium provides insight into the keratinolytic mechanisms. Science of the Total Environment, 2021, 761, 143281.	3.9	25
244	Natural load-bearing protein materials. Progress in Materials Science, 2021, 120, 100767.	16.0	31
245	Tunable Protein Hydrogels: Present State and Emerging Development. Advances in Biochemical Engineering/Biotechnology, 2021, 178, 63-97.	0.6	4
246	Advances in Engineering Human Tissue Models. Frontiers in Bioengineering and Biotechnology, 2020, 8, 620962.	2.0	72
247	Nanoindentation and Hierarchy Structure of the Bovine Hoof Wall. Materials, 2021, 14, 289.	1.3	3
248	Composited Gels from Nature Growing Scaffold: Synthesis, Properties, and Application. ACS Applied Materials & Interfaces, 2021, 13, 5498-5507.	4.0	7
249	Biopolymers and biocomposites: Natureâ€™s tools for wound healing and tissue engineering. , 2021, , 573-630.		5
250	Protein and polypeptide biopolymer chemistry. , 2021, , 107-144.		0
251	Microbial keratinase and the bio-economy: a three-decade meta-analysis of research exploit. AMB Express, 2021, 11, 12.	1.4	19
252	Mechano-responsive hydrogen-bonding array of thermoplastic polyurethane elastomer captures both strength and self-healing. Nature Communications, 2021, 12, 621.	5.8	169

#	ARTICLE	IF	CITATIONS
253	Current Status of Antimicrobial Resistance and Prospect for New Vaccines against Major Bacterial Bovine Mastitis Pathogens. , 0, , .		2
254	Micro Hierarchical Structure and Mechanical Property of Sparrow Hawk ( <i>Accipiter nisus</i> ) Feather Shaf. CMES - Computer Modeling in Engineering and Sciences, 2021, 127, 705-720.	0.8	0
255	Biopolymer-Based Hydrogel Wound Dressing. , 2021, , 227-251.		2
256	Raman Spectroscopy, X-ray Diffraction, and Scanning Electron Microscopy as Noninvasive Methods for Microstructural Alterations in Psoriatic Nails. <i>Molecules</i> , 2021, 26, 280.	1.7	5
257	Structure of Keratin. <i>Methods in Molecular Biology</i> , 2021, 2347, 41-53.	0.4	7
258	Degradation of Temminck's pangolin ( <i>Smutsia temminckii</i> ) scales with a keratinase for extraction of reproductive steroid hormones. <i>MethodsX</i> , 2021, 8, 101229.	0.7	7
259	Friction response of bioinspired AISI 52100 steel surfaces texturized by photochemical machining. <i>Surface Topography: Metrology and Properties</i> , 2021, 9, 014001.	0.9	8
260	Effect of PVDF composition in activated carbon derived from chicken feather on electrical properties. <i>Journal of Physics: Conference Series</i> , 2021, 1825, 012052.	0.3	0
261	Frequency of biological non-skeletal materials in dry bone scenarios. <i>Journal of Clinical Forensic and Legal Medicine</i> , 2021, 78, 102125.	0.5	4
263	Preparing Biochars from Cow Hair Waste Produced in a Tannery for Dye Wastewater Treatment. <i>Materials</i> , 2021, 14, 1690.	1.3	14
264	Indentation Stiffness Measurement by an Optical Coherence Tomography-Based Air-Jet Indentation System Can Reflect Type I Collagen Abundance and Organisation in Diabetic Wounds. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 648453.	2.0	1
265	Proteases in the diet of monogastric animals. <i>Agrarian Science</i> , 2021, 344, 30-38.	0.1	0
266	Keratin intermediate filament chains in tuatara ( <i>Sphenodon punctatus</i> ): A comparison of tuatara and human sequences. <i>Journal of Structural Biology</i> , 2021, 213, 107706.	1.3	5
267	Engineered proâ€¦peptide enhances the catalytic activity of keratinase to improve the conversion ability of feather waste. <i>Biotechnology and Bioengineering</i> , 2021, 118, 2559-2571.	1.7	15
268	Protein-Based 3D Biofabrication of Biomaterials. <i>Bioengineering</i> , 2021, 8, 48.	1.6	28
269	Recent advances in 3D printing with protein-based inks. <i>Progress in Polymer Science</i> , 2021, 115, 101375.	11.8	74
270	Industrial sustainability of microbial keratinases: production and potential applications. <i>World Journal of Microbiology and Biotechnology</i> , 2021, 37, 86.	1.7	23
271	Snake scales record environmental metal(loid) contamination. <i>Environmental Pollution</i> , 2021, 274, 116547.	3.7	14



#	ARTICLE	IF	CITATIONS
272	Comparative Genomics Analysis of Keratin-Degrading <i>Chryseobacterium</i> Species Reveals Their Keratinolytic Potential for Secondary Metabolite Production. <i>Microorganisms</i> , 2021, 9, 1042.	1.6	9
273	Human hair reinforced natural rubber composite: effect of hair loading on mechanical, structural, morphological and thermal behaviour. <i>Journal of Rubber Research (Kuala Lumpur, Malaysia)</i> , 2021, 24, 347.	0.4	0
274	Unique reactivity of nanoporous cellulosic materials mediated by surface-confined water. <i>Nature Communications</i> , 2021, 12, 2513.	5.8	57
275	Structure, Application, and Biochemistry of Microbial Keratinases. <i>Frontiers in Microbiology</i> , 2021, 12, 674345.	1.5	29
276	Bioconversion of animal hair waste using salt- and sulphide-tolerant <i>Bacillus</i> sp. KLP1 and depilation using keratinase. <i>International Journal of Environmental Science and Technology</i> , 2022, 19, 6389-6398.	1.8	7
277	Closing the Loop with Keratin-Rich Fibrous Materials. <i>Polymers</i> , 2021, 13, 1896.	2.0	17
278	Thiol- and Disulfide-Based Stimulus-Responsive Soft Materials and Self-Assembling Systems. <i>Molecules</i> , 2021, 26, 3332.	1.7	29
279	A review: can waste wool keratin be regenerated as a novel textile fibre via the reduction method?. <i>Journal of the Textile Institute</i> , 2022, 113, 1750-1766.	1.0	12
280	Magnetic keratin/hydrocalcites sponges as potential scaffolds for tissue regeneration. <i>Applied Clay Science</i> , 2021, 207, 106090.	2.6	15
281	Newer guar gum ester/chicken feather keratin interact films for tissue engineering. <i>International Journal of Biological Macromolecules</i> , 2021, 180, 339-354.	3.6	31
282	Anisotropic hair keratin-dopamine composite scaffolds exhibit strain-stiffening properties. <i>Journal of Biomedical Materials Research - Part A</i> , 2022, 110, 92-104.	2.1	4
283	Structural Color Materials from Natural Polymers. <i>Advanced Materials Technologies</i> , 2021, 6, .	3.0	52
284	Extraction of natural moisturizing factor from the stratum corneum and its implication on skin molecular mobility. <i>Journal of Colloid and Interface Science</i> , 2021, 604, 480-491.	5.0	22
285	Next-Generation Sequencing Analysis of the <i>Tineola bisselliella</i> Larval Gut Transcriptome Reveals Candidate Enzymes for Keratin Digestion. <i>Genes</i> , 2021, 12, 1113.	1.0	3
286	Biomimetic armour design strategies for additive manufacturing: A review. <i>Materials and Design</i> , 2021, 205, 109730.	3.3	90
287	Green Materials and Technologies for Sustainable Organic Transistors. <i>Advanced Materials Technologies</i> , 2022, 7, 2100445.	3.0	31
288	Influence of surface morphology and internal structure on the mechanical properties and tribological response of Boa Red Tail and Python <i>Regius</i> snake skin. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 119, 104497.	1.5	9
289	Ontogenetic dependence of Nile crocodile ( <i>Crocodylus niloticus</i> ) isotope diet-tissue discrimination factors. <i>Rapid Communications in Mass Spectrometry</i> , 2021, 35, e9159.	0.7	5

#	ARTICLE	IF	CITATIONS
290	Investigation of Mechanical and Physical Properties of Big Sheep Horn as an Alternative Biomaterial for Structural Applications. <i>Materials</i> , 2021, 14, 4039.	1.3	26
291	Cysteine-Mediated Cyclic Metabolism Drives the Microbial Degradation of Keratin. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 9861-9870.	3.2	8
292	Biocompatible and photocrosslinkable poly(ethylene glycol)/keratin biocomposite hydrogels. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2021, 32, 1998-2008.	1.9	7
293	Claw Characteristics of Culled Sows from Three Farrow-to-Finish Greek Farms. Part 2: Mechanical Indices of Hoof Horn and Their Associations with Length Measurements and Lesion Scores. <i>Veterinary Sciences</i> , 2021, 8, 175.	0.6	2
294	Investigation of keratinase digestion to improve steroid hormone extraction from diverse keratinous tissues. <i>General and Comparative Endocrinology</i> , 2021, 309, 113795.	0.8	8
295	Engineering with keratin: A functional material and a source of bioinspiration. <i>IScience</i> , 2021, 24, 102798.	1.9	51
296	Effective bioconversion of feather-waste Keratin by Thermo-Surfactant Stable Alkaline Keratinase produced from <i>Aspergillus</i> sp. DHE7 with promising biotechnological application in detergent formulations. <i>Biocatalysis and Agricultural Biotechnology</i> , 2021, 35, 102052.	1.5	11
297	The triboelectricity of the human body. <i>Nano Energy</i> , 2021, 86, 106041.	8.2	35
298	Structure and moisture effect on the mechanical behavior of a natural biocomposite, buffalo horn sheath. <i>Composites Communications</i> , 2021, 26, 100748.	3.3	5
299	Bend, Push, Stretch: Remarkable Structure and Mechanics of Single Intermediate Filaments and Meshworks. <i>Cells</i> , 2021, 10, 1960.	1.8	13
300	Synthesis of activated carbon derived from chicken feather for Li-ion batteries through chemical and physical activation process. <i>Materials for Renewable and Sustainable Energy</i> , 2021, 10, 1.	1.5	6
301	Deconstruction and Reassembly of Renewable Polymers and Biocolloids into Next Generation Structured Materials. <i>Chemical Reviews</i> , 2021, 121, 14088-14188.	23.0	113
302	Recalibrated Scales: The Use of Low-dose Isotretinoin in a Case of Epidermolytic Ichthyosis-NPS1 in a Filipino Child. <i>Acta Medica Philippina</i> , 2021, 55, .	0.0	0
303	Waterless sterilization and cleaning of sheep wool fiber using supercritical carbon dioxide. <i>Textile Reseach Journal</i> , 0, , 004051752110428.	1.1	2
304	A Review on Mechanical Models for Cellular Media: Investigation on Material Characterization and Numerical Simulation. <i>Polymers</i> , 2021, 13, 3283.	2.0	6
305	<i>Chryseobacterium aquifrigidense</i> keratinase liberated essential and nonessential amino acids from chicken feather degradation. <i>Environmental Technology (United Kingdom)</i> , 2023, 44, 293-303.	1.2	9
306	A novel bis-reaction-triggered cascade fluorescent probe for improved specific detection and biological visualization of Cys over Hcy/GSH. <i>Dyes and Pigments</i> , 2022, 197, 109823.	2.0	5
307	Secalin enzymatically cross-linked by either papain and N-acetyl-dl-homocysteine thiolactone or transglutaminase: Improving of protein functional properties and film manufacturing. <i>Food Hydrocolloids</i> , 2021, 120, 106912.	5.6	7

#	ARTICLE	IF	CITATIONS
308	Keratin intermediate filament chains in the European common wall lizard ( <i>Podarcis muralis</i> ) and a potential keratin filament crosslinker. <i>Journal of Structural Biology</i> , 2021, 213, 107793.	1.3	1
309	Unravelling the nature of the $\hat{1}\pm$ -keratin EPR signal: an <i>ab initio</i> study. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 6815-6822.	1.3	3
310	Recent progress in and prospects for supercapacitor materials based on metal oxide or hydroxide/biomass-derived carbon composites. <i>Sustainable Energy and Fuels</i> , 2021, 5, 5332-5365.	2.5	34
311	Human Hair: Scaffold Materials for Regenerative Medicine. <i>Advances in Experimental Medicine and Biology</i> , 2020, 1249, 223-229.	0.8	3
312	CHAPTER 7. Amyloid-Like Peptide Aggregates. <i>RSC Soft Matter</i> , 2020, , 217-268.	0.2	2
313	Sex-related chemical differences in keratin from fingernail plates: a solid-state carbon-13 NMR study. <i>RSC Advances</i> , 2017, 7, 28213-28223.	1.7	15
314	Microstructure and mechanical properties of different keratinous horns. <i>Journal of the Royal Society Interface</i> , 2018, 15, 20180093.	1.5	33
316	Development of a keratinase activity assay using recombinant chicken feather keratin substrates. <i>PLoS ONE</i> , 2017, 12, e0172712.	1.1	46
317	Challenges and Opportunities in Identifying and Characterising Keratinases for Value-Added Peptide Production. <i>Catalysts</i> , 2020, 10, 184.	1.6	39
318	Structural and Morphological Properties of Wool Keratin and Cellulose Biocomposites Fabricated Using Ionic Liquids. <i>ACS Materials Au</i> , 2022, 2, 21-32.	2.6	6
319	Study on the structural features and geometric parameters affecting the axial mechanical properties of the primary feather rachis. <i>Microscopy Research and Technique</i> , 2021, , .	1.2	1
320	Imidazolium-based ionic liquid-assisted processing of natural biopolymers containing amine/amide functionalities for sustainable fiber production. <i>Materials Today Sustainability</i> , 2021, 14, 100082.	1.9	9
321	Autogenous Cross-Linking of Recycled Keratin from Poultry-Feather Waste to Hydrogels for Plant-Growth Media. <i>Polymers</i> , 2021, 13, 3581.	2.0	4
322	Exceptionally rich keratinolytic enzyme profile found in the rare actinomycetes <i>Amycolatopsis keratiniphila</i> D2T. <i>Applied Microbiology and Biotechnology</i> , 2021, 105, 8129-8138.	1.7	8
323	Degradation of Chicken Feathers by Indigenous <i>Pseudomonas aeruginosa</i> . , 2018, , .		0
324	Optimization of azo-keratin hydrolysis by alginate-immobilized Keratinase produced from <i>Bacillus licheniformis</i> . <i>Journal of Advanced Biomedical and Pharmaceutical Sciences</i> , 2019, , .	0.3	1
325	Undervalued ubiquitous proteins. <i>4open</i> , 2019, 2, 7.	0.1	6
326	Structural characterization and regulation of the mechanical properties of the carapace cuticle in tri-spine horseshoe crab ( <i>Tachypleus tridentatus</i> ). <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 125, 104954.	1.5	5

#	ARTICLE	IF	CITATIONS
327	Cross-Scale Biological Models of Species for Future Biomimetic Composite Design: A Review. <i>Coatings</i> , 2021, 11, 1297.	1.2	6
328	Characterization of Secondary Structure of Pig Hair Fiber Using Fourier-transform Infrared Spectroscopy. <i>Journal of Natural Fibers</i> , 2022, 19, 4223-4235.	1.7	10
329	Analysis of the Contribution of Conformation and Fibrils on Tensile Toughness and Fracture Resistance of Camel Hairs. <i>ACS Biomaterials Science and Engineering</i> , 2020, , .	2.6	3
330	Protein Hydrolysates from Biogenic Waste as an Ecological Flame Retarder and Binder for Fiberboards. <i>ACS Omega</i> , 2020, 5, 32227-32233.	1.6	7
331	The treatment of a longcase clock attributed to Jean-Pierre Latz: alternative approaches to the removal of copper corrosion products on Boulle-style marquetry. <i>Techne</i> , 2020, , 28-33.	0.0	0
332	Natural Polymers for Biophotonic Use. , 2021, , 1-20.		0
333	Bio-Based Composites from Industrial By-products and Wastes as Raw Materials. <i>Journal of Materials Science Research</i> , 2020, 9, 29.	0.1	1
334	Biofunctional approaches of wool-based keratin for tissue engineering. <i>Journal of Science: Advanced Materials and Devices</i> , 2022, 7, 100398.	1.5	14
335	An optimal designed experiment for the alkaline hydrolysis of feather keratin. <i>Environmental Science and Pollution Research</i> , 2022, 29, 24145-24154.	2.7	8
336	Poultry Feather Waste as Bio-Based Cross-Linking Additive for Ethylene Propylene Diene Rubber. <i>Polymers</i> , 2021, 13, 3908.	2.0	0
337	Fractal structure and hydration-driven shape memory of duck down in the dryâ€“wet state. <i>Textile Reseach Journal</i> , 2022, 92, 1444-1453.	1.1	2
338	The Influence of UV Varnishes on the Content of Cysteine and Methionine in Women Nail Platesâ€“Chromatographic Studies. <i>International Journal of Molecular Sciences</i> , 2021, 22, 12447.	1.8	1
339	A combination of bioinformatics analysis and rational design strategies to enhance keratinase thermostability for efficient biodegradation of feathers. <i>Science of the Total Environment</i> , 2022, 818, 151824.	3.9	15
340	Dual-Polarized Keratin-Based UWB Chipless RFID Relative Humidity Sensor. <i>IEEE Sensors Journal</i> , 2022, 22, 1924-1932.	2.4	12
341	New morphological and molecular perspectives about <i>Macracanthorhynchus hirudinaceus</i> (Acanthocephala: Oligacanthorhynchidae) from wild boar, <i>Sus scrofa</i> Linn., in Ukraine. <i>Journal of Helminthology</i> , 2021, 95, e73.	0.4	4
342	Self-assembled uniform keratin nanoparticles as building blocks for nanofibrils and nanolayers derived from industrial feather waste. <i>Journal of Cleaner Production</i> , 2022, 335, 130331.	4.6	12
343	The main aspects of the technology of processing keratin raw materials under the influence of a magnetic field. , 2020, , .		3
344	Advances in the Development of Biodegradable Polymeric Materials for Biomedical Applications. , 2022, , 532-566.		1

#	ARTICLE	IF	CITATIONS
345	Biobased Protic Ionic Liquids as Sustainable Solvents for Wool Keratin/Cellulose Simultaneous Dissolution: Solution Properties and Compositing Membrane Preparation. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 2158-2168.	3.2	14
346	Anisotropic Composition and Mechanical Behavior of a Natural Thin-Walled Composite: Eagle Feather Shaft. <i>Polymers</i> , 2022, 14, 309.	2.0	1
347	Prediction of Bioactive Peptides from Chicken Feather and Pig Hair Keratins using In Silico Analysis Based on Fragmentomic Approach. <i>Current Pharmaceutical Design</i> , 2022, 28, 841-851.	0.9	4
348	Composite Materials with Natural Fibers. , 0, , .		3
349	Regulating Interfacial Ion Migration via Wool Keratin Mediated Biogel Electrolyte toward Robust Flexible Zn-Ion Batteries. <i>Small</i> , 2022, 18, e2107163.	5.2	30
350	Field-assisted additive manufacturing of polymeric composites. <i>Additive Manufacturing</i> , 2022, 51, 102642.	1.7	11
351	Beyond Additivity: A mixture of glucose and NaCl can influence skin hydration more than the individual compounds. <i>Journal of Colloid and Interface Science</i> , 2022, 613, 554-562.	5.0	4
352	Biocompatible and biodegradable organic electronic materials. , 2022, , 297-338.		5
353	Green fluorescent nanomaterials for rapid detection of chromium and iron ions: wool keratin-based carbon quantum dots. <i>RSC Advances</i> , 2022, 12, 8108-8118.	1.7	15
354	Natural Polymers for Biophotonic Use. , 2022, , 921-940.		0
355	Damage and Failure Mechanisms of Biological Materials. , 2022, , .		1
356	Biomimetic synthesis of 2D ultra-small copper sulfide nanoflakes based on reconfiguration of the keratin secondary structure for cancer theranostics in the NIR-II region. <i>Journal of Materials Chemistry B</i> , 2022, 10, 3152-3161.	2.9	5
357	Aperiodic crystals in biology. <i>Journal of Physics Condensed Matter</i> , 2022, 34, 123001.	0.7	4
358	A Framework for Incorporating Transient Solute-Keratin Binding Into Dermal Absorption Models. <i>Journal of Pharmaceutical Sciences</i> , 2022, 111, 2093-2106.	1.6	2
359	Preparation and applications of keratin biomaterials from natural keratin wastes. <i>Applied Microbiology and Biotechnology</i> , 2022, 106, 2349-2366.	1.7	14
360	Microscopy imaging and modeling study on the mechanical properties of the primary flight feather shaft of the bean goose, <i>Anser fabalis</i> . <i>Microscopy Research and Technique</i> , 2022, , .	1.2	0
361	Regulating the Pore Structure and Heteroatom Doping of Hollow Carbon Fiber Based on a Trifunctional Template Method for High-Performance Lithium-Ion Capacitors. <i>ACS Applied Energy Materials</i> , 2022, 5, 3034-3042.	2.5	5
362	Hierarchically non-uniform structures determine the hydro-actuated bending deformation of camel hair. <i>Cell Reports Physical Science</i> , 2022, 3, 100793.	2.8	2

#	ARTICLE	IF	CITATIONS
363	Bioconversion of Keratin Wastes Using Keratinolytic Microorganisms to Generate Value-Added Products. <i>International Journal of Biomaterials</i> , 2022, 2022, 1-24.	1.1	5
364	Mistletoe viscin: a hygro- and mechano-responsive cellulose-based adhesive for diverse material applications. , 2022, 1, .		5
365	A bio-based elastomer from cornstalk pith scaffold and natural rubber complexing with ferric ions: Preparation and mechanical properties. <i>Polymer</i> , 2022, 244, 124678.	1.8	3
366	Directed evolution driving the generation of an efficient keratinase variant to facilitate the feather degradation. <i>Bioresources and Bioprocessing</i> , 2022, 9, .	2.0	10
367	The information content of tensile tests of human hair (wet) is limited: Variables mainly cluster in just two principal components. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022, 129, 105145.	1.5	6
368	An environment-friendly chemical modification method for thiol groups on polypeptide macromolecules to improve the performance of regenerated keratin materials. <i>Materials and Design</i> , 2022, 217, 110611.	3.3	11
369	A novel bio-inspired metal hollow sphere filled TC4/Al sandwich composite: Fabrication and compressive properties. <i>Materials Today Communications</i> , 2022, 31, 103349.	0.9	1
370	Sustainability in Heritage Wood Conservation: Challenges and Directions for Future Research. <i>Forests</i> , 2022, 13, 18.	0.9	7
371	NON-INVASIVE ANALYTICAL TECHNIQUES APPLIED ON PIGMENTS CHARACTERIZATION OF ANCIENT BIVALVE SHELLS. <i>Journal of Science and Arts</i> , 2021, 21, 1121-1132.	0.1	0
372	Improving Transungual Permeation Study Design by Increased Bovine Hoof Membrane Thickness and Subsequent Infection. <i>Pharmaceutics</i> , 2021, 13, 2098.	2.0	4
373	Keratinases as Versatile Enzymatic Tools for Sustainable Development. <i>Biomolecules</i> , 2021, 11, 1900.	1.8	20
374	Applications of biomemristors in next generation wearable electronics. <i>Nanoscale Horizons</i> , 2022, 7, 822-848.	4.1	19
375	Sulfur stable isotope ratios provide further insight into movements of the fin whale, an oceanic long-range migrant. <i>Marine Ecology - Progress Series</i> , 2022, 692, 185-194.	0.9	4
376	Functionalization of biopolymer keratin-based biomaterials and their absorption properties for healthcare application. , 2022, , 257-270.		0
377	Exploring Magnetic Field Treatment into Solid-State Fermentation of Organic Waste for Improving Structural and Physiological Properties of Keratin Peptides. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
378	Microbial Production and Industrial Applications of Keratinase. <i>KSBB Journal</i> , 2022, 37, 1-10.	0.1	0
379	Chemistry and Analysis of Organic Compounds in Dinosaurs. <i>Biology</i> , 2022, 11, 670.	1.3	11
380	Marine Biomaterials for Pharmaceutical Applications: A Review. <i>Current Traditional Medicine</i> , 2022, 08, .	0.1	0

#	ARTICLE	IF	CITATIONS
381	Keratin-based wound dressings: From waste to wealth. <i>International Journal of Biological Macromolecules</i> , 2022, 211, 183-197.	3.6	21
382	Poly(pseudo)rotaxanes formed by mixed micelles and $\beta$ -cyclodextrin enhance terbinafine nail permeation to deeper layers. <i>International Journal of Pharmaceutics: X</i> , 2022, 4, 100118.	1.2	2
383	Biomemristors-based synaptic devices for artificial intelligence applications. <i>Organic Electronics</i> , 2022, 106, 106540.	1.4	15
384	Effect of wet- and dry-salting with various salt concentrations on pork skin for extraction of gelatin. <i>Food Hydrocolloids</i> , 2022, 131, 107772.	5.6	8
385	A Review on Chicken Feather Fiber (CFF) and its application in Composites. <i>Journal of Natural Fibers</i> , 2022, 19, 12565-12585.	1.7	11
386	Rational Design of High-Performance Keratin-Based Hemostatic Agents. <i>Advanced Healthcare Materials</i> , 2022, 11, .	3.9	9
387	Bioinspired Strategies for Excellent Mechanical Properties of Composites. <i>Journal of Bionic Engineering</i> , 2022, 19, 1203-1228.	2.7	16
388	A statistical approach to the development of flame retardant and mechanically strong natural fibers biocomposites. <i>Polymer Degradation and Stability</i> , 2022, 201, 109991.	2.7	3
389	A FoM for Investigation of SB TFET Biosensor Considering Non-Ideality. <i>IEEE Nanotechnology Magazine</i> , 2022, 21, 251-258.	1.1	7
390	The Multifaceted Role of Pectin in Keratin Based Nanocomposite with Antimicrobial and Anti-Oxidant Activity. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
391	Animal-Derived Hydrolyzed Protein and Its Biostimulant Effects. , 2022, , 107-140.		3
392	Silk Fibroin Nacre. <i>Advanced Fiber Materials</i> , 2022, 4, 1191-1208.	7.9	8
393	Palmyrene Polychromy: Investigations of Funerary Portraits from Palmyra in the Collections of the Ny Carlsberg Glyptotek, Copenhagen. <i>Heritage</i> , 2022, 5, 1199-1239.	0.9	4
394	Functionalization of Nonwovens by Directional Growth of Keratin Nanofibers from Discarded Feather for Preparing Multi-Efficient Air Filters with Bimodal Fibrous Structure. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
395	The progress and prospect for sustainable development of waste wool resources. <i>Textile Research Journal</i> , 2023, 93, 468-485.	1.1	8
396	Characterization and ex vivo evaluation of excised skin samples as substitutes for human dermal barrier in pharmaceutical and dermatological studies. <i>Skin Research and Technology</i> , 0, , .	0.8	5
397	Perspectives on Converting Keratin-Containing Wastes Into Biofertilizers for Sustainable Agriculture. <i>Frontiers in Microbiology</i> , 0, 13, .	1.5	7
398	A State-of-the-art Review on Keratin Biomaterial as Eminent Nanocarriers for Drug Delivery Applications. <i>Letters in Drug Design and Discovery</i> , 2023, 20, 245-263.	0.4	1

#	ARTICLE	IF	CITATIONS
399	Sustainable Nutrient Substrates for Enhanced Seedling Development in Hydroponics. ACS Sustainable Chemistry and Engineering, 2022, 10, 8506-8516.	3.2	9
400	Dynamic behaviors of bio-inspired structures: Design, mechanisms, and models. Engineering Structures, 2022, 265, 114490.	2.6	65
401	Preparation of photosensitive SiO <sub>2</sub> /SiC ceramic slurry with high solid content for stereolithography. Ceramics International, 2022, 48, 30332-30337.	2.3	14
402	Myosin assembly of smooth muscle: from ribbons and side polarity to a row polar helical model. Journal of Muscle Research and Cell Motility, 2022, 43, 113-133.	0.9	3
403	Biodegradable Polymer Composites for Electrophysiological Signal Sensing. Polymers, 2022, 14, 2875.	2.0	8
404	Recent bicycle helmet designs and directions for future research: A comprehensive review from material and structural mechanics aspects. International Journal of Impact Engineering, 2022, 168, 104317.	2.4	19
405	Engineering flexible loops to enhance thermal stability of keratinase for efficient keratin degradation. Science of the Total Environment, 2022, 845, 157161.	3.9	8
406	Extrusion 3D printing of keratin protein hydrogels free of exogenous chemical agents. Biomedical Materials (Bristol), 2022, 17, 055006.	1.7	2
407	Equine hoof wall: Structure, properties, and bioinspired designs. Acta Biomaterialia, 2022, 151, 426-445.	4.1	8
408	Hierarchical nano-helix as a new reinforcing unit for simultaneously ultra-strong and super-tough alginate fibers. Carbohydrate Polymers, 2022, 297, 119998.	5.1	1
409	The Study of Mechanical Behaviors of Caprinae Horn Sheath under Pendulum Impact. Polymers, 2022, 14, 3272.	2.0	3
410	Antibacterial and biodegradable keratin-based quaternary ammonium salt surfactant potential as hair care additive. Journal of Dispersion Science and Technology, 0, , 1-10.	1.3	1
412	Natural Polymerâ€Derived Bioscaffolds for Peripheral Nerve Regeneration. Advanced Functional Materials, 2022, 32, .	7.8	21
413	Valorisation of keratinous wastes: A sustainable approach towards a circular economy. Waste Management, 2022, 151, 81-104.	3.7	20
414	The multifaceted role of pectin in keratin based nanocomposite with antimicrobial and anti-oxidant activity. Journal of Drug Delivery Science and Technology, 2022, 75, 103661.	1.4	4
415	Biological importance and pharmaceutical significance of keratin: A review. International Journal of Biological Macromolecules, 2022, 219, 395-413.	3.6	16
416	Computational identification of small molecules in Mitracarpus scaber ethanolic leaf extract with fungal keratinase inhibitory potentials. , 2022, 2, 100010.		1
417	The use of antimicrobial biomaterials as a savior from post-operative vascular graft-related infections: A review. Results in Engineering, 2022, 16, 100662.	2.2	4



#	ARTICLE	IF	CITATIONS
418	Functionalized multi-effect air filters with bimodal fibrous structure prepared by direction growth of keratin nanofibers. Separation and Purification Technology, 2022, 302, 122070.	3.9	4
419	Standard Candles for Dating Microbial Lineages. Methods in Molecular Biology, 2022, , 41-74.	0.4	0
420	Structure and Dynamics of Native Biological Materials by Solid-state NMR Spectroscopy. New Developments in NMR, 2022, , 614-655.	0.1	0
421	Design of 5'UTR to Enhance Keratinase Activity in Bacillus subtilis. Fermentation, 2022, 8, 426.	1.4	4
422	Stratum Corneum Structure and Function Studied by X-ray Diffraction. Dermato, 2022, 2, 79-108.	0.6	6
423	Understanding the Interaction of Gluconamides and Gluconates with Amino Acids in Hair Care. Crystal Growth and Design, 2022, 22, 6190-6200.	1.4	1
424	Diversity and Functional Analysis of Soil Culturable Microorganisms Using a Keratin Baiting Technique. Microbiology, 2022, 91, 542-552.	0.5	0
425	Extraction of keratin from keratinous wastes: current status and future directions. Journal of Material Cycles and Waste Management, 2023, 25, 1-16.	1.6	9
426	Nano/micro-formulations of keratin in biocomposites, wound healing and drug delivery systems; recent advances in biomedical applications. European Polymer Journal, 2022, 180, 111614.	2.6	12
427	Characterization of the keratin/polyamide 6 composite fiber's structure and performance prepared by the optimized spinning process based on the rheological analysis. International Journal of Biological Macromolecules, 2022, 222, 938-949.	3.6	3
428	Scales in the Early Cretaceous bird Gansus from China provide evidence on the evolution of avian scales. Journal of Palaeogeography, 2022, 11, 640-652.	0.9	1
429	Arginine-fructose-glucose from red ginseng extract reduces stiffness of keratin fiber in corneocyte of skin. Skin Research and Technology, 0, , .	0.8	1
430	Parametrically optimized feather degradation by Bacillus velezensis NCIM 5802 and delineation of keratin hydrolysis by multi-scale analysis for poultry waste management. Scientific Reports, 2022, 12, .	1.6	9
431	Multifarious revolutionary aspects of microbial keratinases: an efficient green technology for future generation with prospective applications. Environmental Science and Pollution Research, 2022, 29, 86913-86932.	2.7	6
432	Fourier Transform Infrared Spectroscopy for Assessing Structural and Enzymatic Reactivity Changes Induced during Feather Hydrolysis. ACS Omega, 2022, 7, 39924-39930.	1.6	3
433	Protein-Based Biomaterials for Sustainable Remediation of Aquatic Environments. , 2023, , 153-170.		0
434	Correlating multi-scale structure characteristics to mechanical behavior of Caprinae horn sheaths. Journal of Materials Research and Technology, 2022, 21, 2191-2202.	2.6	62
435	Hierarchical modeling of elastic moduli of equine hoof wall. Journal of the Mechanical Behavior of Biomedical Materials, 2022, 136, 105529.	1.5	3

#	ARTICLE	IF	CITATIONS
436	Bioinspired Robust Keratin Hydrogels for Biomedical Applications. Nano Letters, 2022, 22, 8835-8844.	4.5	10
437	Study on the microstructure characteristics, compression, and thermal insulation properties of duck down. Textile Reseach Journal, 0, , 004051752211377.	1.1	0
438	Preparation Methods and Functional Characteristics of Regenerated Keratin-Based Biofilms. Polymers, 2022, 14, 4723.	2.0	2
439	Optimization of bacterial cellulose production from alcohol lees by intermittent feeding strategy. Brazilian Journal of Chemical Engineering, 0, , .	0.7	0
440	Sustainable Biodegradation and Extraction of Keratin with Its Applications. , 2022, , 1-35.		0
441	Collagen and Keratin as a Components of Hydrogels. Fibres and Textiles in Eastern Europe, 2022, 30, 61-69.	0.2	1
443	Hierarchically structured bioinspired nanocomposites. Nature Materials, 2023, 22, 18-35.	13.3	119
444	Water-Processable, Stretchable, and Ion-Conducting Coacervate Fibers from Keratin Associations with Polyelectrolytes. ACS Sustainable Chemistry and Engineering, 2022, 10, 15968-15977.	3.2	4
446	Wool keratin as a novel alternative protein: A comprehensive review of extraction, purification, nutrition, safety, and food applications. Comprehensive Reviews in Food Science and Food Safety, 2023, 22, 643-687.	5.9	13
447	Biological Materials Processing: Time-Tested Tricks for Sustainable Fiber Fabrication. Chemical Reviews, 2023, 123, 2155-2199.	23.0	11
448	Molecular Structure and Dynamics in Wet Gecko Î²-Keratin. ACS Biomaterials Science and Engineering, 2023, 9, 257-268.	2.6	4
449	Utilization of feather keratin waste to antioxidant and migration-enhancer peptides by <i>Bacillus licheniformis</i> . Journal of Applied Microbiology, 2023, 134, .	1.4	4
450	Degradable and Tunable Keratin-fibrinogen Hydrogel as Controlled Release System for Skin Tissue Regeneration. Journal of Bionic Engineering, 2023, 20, 1049-1059.	2.7	3
451	Physico-Chemical Characterization of Keratin from Wool and Chicken Feathers Extracted Using Refined Chemical Methods. Polymers, 2023, 15, 181.	2.0	7
452	Two-Stage Fermented Feather Meal-Soybean Meal Product Improves the Performance and Immunity of Lactating Sows and Piglets. Fermentation, 2023, 9, 82.	1.4	0
453	Reinforced Wool Keratin Fibers via Dithiol Chain Reâ€bonding. Advanced Functional Materials, 2023, 33, .	7.8	5
454	Keratin for potential biomedical applications. , 2023, , 59-91.		0
455	Recent developments in extraction of keratin from industrial wastes. , 2023, , 281-302.		0

#	ARTICLE	IF	CITATIONS
456	A high-performance S-TENG based on the synergistic effect of keratin and calcium chloride for finger activity tracking. <i>Nano Energy</i> , 2023, 112, 108443.	8.2	5
457	Faecal waste characteristics of yellowtail kingfish ( <i>Seriola lalandi</i> ) fed with pelleted and natural feed. <i>Animal Feed Science and Technology</i> , 2023, 299, 115625.	1.1	2
458	Insights of keratin geometry from agro-industrial wastes: A comparative computational and experimental assessment. <i>Food Chemistry</i> , 2023, 418, 135854.	4.2	2
459	Bio-Inspired of Pyramidal Concrete Barrier Walls against the Effects of Explosion Waves. <i>Open Journal of Civil Engineering</i> , 2022, 12, 615-629.	0.2	0
460	How the geometry and mechanics of bighorn sheep horns mitigate the effects of impact and reduce the head injury criterion. <i>Bioinspiration and Biomimetics</i> , 2023, 18, 026005.	1.5	3
461	Tribological Behavior of Bioinspired Surfaces. <i>Biomimetics</i> , 2023, 8, 62.	1.5	2
462	A Sustainable Solution to Skin Diseases: Ecofriendly Transdermal Patches. <i>Pharmaceutics</i> , 2023, 15, 579.	2.0	10
463	The Integration of Biopolymer-Based Materials for Energy Storage Applications: A Review. <i>International Journal of Molecular Sciences</i> , 2023, 24, 3975.	1.8	6
464	Valorization of feather waste in Brazil: structure, methods of extraction, and applications of feather keratin. <i>Environmental Science and Pollution Research</i> , 2023, 30, 39558-39567.	2.7	4
465	Using Wool Keratin as a Structural Biomaterial and Natural Mediator to Fabricate Biocompatible and Robust Bioelectronic Platforms. <i>Advanced Science</i> , 2023, 10, .	5.6	13
466	Materials, design, and technology of body armor. , 2023, , 259-301.		0
467	Potential role of keratinase in the environmental remediation. <i>Materials Today: Proceedings</i> , 2023, , .	0.9	1
468	Mechanical anisotropy of hair affected by genetic diseases highlights structural information related to differential crosslinking in keratins. <i>European Biophysics Journal</i> , 2023, 52, 53-67.	1.2	0
469	Biomechanics illuminates formâ€“function relationships in bird bills. <i>Journal of Experimental Biology</i> , 2023, 226, .	0.8	3
470	Biomolecular 1D Necklace-like Nanostructures Tailoring 2D Janus Interfaces for Controllable 3D Enteric Biomaterials. <i>ACS Nano</i> , 2023, 17, 5620-5631.	7.3	1
471	Effects of Keratin Pretreatment on Damaged Hair during Perm Procedure. <i>Asian Journal of Beauty and Cosmetology</i> , 2023, 21, 51-58.	0.2	0
472	Extremely Largeâ€“stroke Hair Artificial Muscles with Fast Recovery Prepared by a Facile and Green Method. <i>Advanced Intelligent Systems</i> , 0, , .	3.3	0
473	Photoluminescence in mammal fur: 111 years of research. <i>Journal of Mammalogy</i> , 2023, 104, 892-906.	0.6	2

#	ARTICLE	IF	CITATIONS
474	Lightweight Structural Biomaterials with Excellent Mechanical Performance: A Review. <i>Biomimetics</i> , 2023, 8, 153.	1.5	2
475	Tricobezoar gástrico gigante: reporte de un caso clínicopatológico. <i>Acta Medica Costarricense</i> , 2023, 64, 1-5.	0.1	0
476	Fabrication of Architected Biomaterials by Multilayer Co-Extrusion and Additive Manufacturing. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	0
477	Feeding without teeth: the material properties of rhamphothecae from two species of durophagous sea turtles. <i>Royal Society Open Science</i> , 2023, 10, .	1.1	3
478	Proteotypic peptides of hairs for the identification of common European domestic and wild animal species revealed by in-sample protein digestion and mass spectrometry analysis. <i>Journal of Separation Science</i> , 2023, 46, .	1.3	1
481	Sustainable Biodegradation and Extraction of Keratin with Its Applications. , 2023, , 713-747.		0
482	Proteins: Structure, properties, and importance. , 2023, , 77-117.		0
485	Current Trends and Prospects of Transforming Animal Waste into Food. , 2023, , 469-503.		0
490	Extraction, properties, and applications of keratin-based films and blends. , 2023, , 399-420.		0
491	Wool, a natural biopolymer: extraction and structure-property relationships. , 2023, , 441-469.		0
509	Selected natural fibers and their electrospinning. <i>Journal of Polymer Research</i> , 2023, 30, .	1.2	2
513	Mechanics of Proteins. , 2023, , .		0
523	Science and Technology of Hair Fibers. , 2023, , 1-19.		0
532	Current Trends in the Treatment of Traumatic Nail Injuries and the Prospect of Solutions from Regenerative Engineering. <i>Regenerative Engineering and Translational Medicine</i> , 0, , .	1.6	0
534	Integument. <i>Fascinating Life Sciences</i> , 2023, , 319-477.	0.5	0
540	Progress in sustainable applications of polymers and biopolymers. , 2023, , .		0
553	PGM-Free Biomass-Derived Electrocatalysts for Oxygen Reduction in Energy Conversion Devices: Promising Materials. <i>Electrochemical Energy Reviews</i> , 2024, 7, .	13.1	0
556	Keratin extraction and its application: extraction of wool keratin and application in diversified fields. , 2024, , 501-531.		0

#	ARTICLE	IF	CITATIONS
569	Keratinase: A Futuristic Green Catalyst and Potential Applications. , 2024, , 207-230.		0