Wen Yang

List of Publications by Year
in descending order

42 papers	3,671 citations	172207 29 h-index	288905 40 g-index
43 all docs	43 docs citations	43 times ranked	3598 citing authors

#	Article	IF	Citations
1	Structural Design Variations in Beetle Elytra. Advanced Functional Materials, 2021, 31, 2106468.	7.8	12
2	Structural Design Variations in Beetle Elytra (Adv. Funct. Mater. 50/2021). Advanced Functional Materials, 2021, 31, .	7.8	0
3	On the Strength of Hair across Species. Matter, 2020, 2, 136-149.	5.0	18
4	On the gular sac tissue of the brown pelican: Structural characterization and mechanical properties. Acta Biomaterialia, 2020, 118, 161-181.	4.1	3
5	Structure and Mechanical Adaptability of a Modern Elasmoid Fish Scale from the Common Carp. Matter, 2020, 3, 842-863.	5.0	47
6	Active defense mechanisms of thorny catfish. Materials Today, 2020, 38, 35-48.	8.3	8
7	The toughness of porcine skin: Quantitative measurements and microstructural characterization. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 109, 103848.	1.5	14
8	Hyperelastic phase-field fracture mechanics modeling of the toughening induced by Bouligand structures in natural materials. Journal of the Mechanics and Physics of Solids, 2019, 131, 204-220.	2.3	50
9	Arapaima Fish Scale: One of the Toughest Flexible Biological Materials. Matter, 2019, 1, 1557-1566.	5.0	40
10	Tensile behavior and structural characterization of pig dermis. Acta Biomaterialia, 2019, 86, 77-95.	4.1	64
11	How Water Can Affect Keratin: Hydrationâ€Driven Recovery of Bighorn Sheep (Ovis Canadensis) Horns. Advanced Functional Materials, 2019, 29, 1901077.	7.8	29
12	A natural energy absorbent polymer composite: The equine hoof wall. Acta Biomaterialia, 2019, 90, 267-277.	4.1	47
13	Structural architectures with toughening mechanisms in Nature: A review of the materials science of Type-I collagenous materials. Progress in Materials Science, 2019, 103, 425-483.	16.0	78
14	Novel Defense Mechanisms in the Armor of the Scales of the â€œLiving Fossilâ€• Coelacanth Fish. Advanced Functional Materials, 2018, 28, 1804237.	7.8	61
15	Structural characterization and viscoelastic constitutive modeling of skin. Acta Biomaterialia, 2017, 53, 460-469.	4.1	44
16	Structure and mechanical behavior of human hair. Materials Science and Engineering C, 2017, 73, 152-163.	3.8	112
17	Viscoelastic properties of Î±-keratin fibers in hair. Acta Biomaterialia, 2017, 64, 15-28.	4.1	28
18	A comparative study of piscine defense: The scales of Arapaima gigas, Latimeria chalumnae and Atractosteus spatula. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 73, 1-16.	1.5	52

#	ARTICLE	IF	CITATIONS
19	Pangolin armor: Overlapping, structure, and mechanical properties of the keratinous scales. Acta Biomaterialia, 2016, 41, 60-74.	4.1	109
20	Keratin: Structure, mechanical properties, occurrence in biological organisms, and efforts at bioinspiration. Progress in Materials Science, 2016, 76, 229-318.	16.0	571
21	A Sustainable Substitute for Ivory: the Jarina Seed from the Amazon. Scientific Reports, 2015, 5, 14387.	1.6	12
22	The materials science of collagen. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 52, 22-50.	1.5	227
23	The armored carapace of the boxfish. Acta Biomaterialia, 2015, 23, 1-10.	4.1	63
24	On the tear resistance of skin. Nature Communications, 2015, 6, 6649.	5.8	297
25	Leatherback sea turtle shell: A tough and flexible biological design. Acta Biomaterialia, 2015, 28, 2-12.	4.1	84
26	Biological Selfâ€Arrangement of Fiber Like Aragonite and Its Effect on Mechanical Behavior of <i>Veined rapa whelk</i> Shell. Journal of the American Ceramic Society, 2015, 98, 3319-3325.	1.9	23
27	Alligator osteoderms: Mechanical behavior and hierarchical structure. Materials Science and Engineering C, 2014, 35, 441-448.	3.8	39
28	Protective role of Arapaima gigas fish scales: Structure and mechanical behavior. Acta Biomaterialia, 2014, 10, 3599-3614.	4.1	161
29	Structure and fracture resistance of alligator gar (Atractosteus spatula) armored fish scales. Acta Biomaterialia, 2013, 9, 5876-5889.	4.1	116
30	Mechanical adaptability of the Bouligand-type structure in natural dermal armour. Nature Communications, 2013, 4, 2634.	5.8	277
31	Axial compression of a hollow cylinder filled with foam: A study of porcupine quills. Acta Biomaterialia, 2013, 9, 5297-5304.	4.1	46
32	Separating the influence of the cortex and foam on the mechanical properties of porcupine quills. Acta Biomaterialia, 2013, 9, 9065-9074.	4.1	48
33	Natural Flexible Dermal Armor. Advanced Materials, 2013, 25, 31-48.	11.1	327
34	Comparisons of Microstructures and Hardness Distribution between Clinocardium Californiense and Veined Rapa Whelk Shells. Key Engineering Materials, 2013, 544, 295-298.	0.4	3
35	Predation versus protection: Fish teeth and scales evaluated by nanoindentation. Journal of Materials Research, 2012, 27, 100-112.	1.2	83
36	The Structure, Functions, and Mechanical Properties of Keratin. Jom, 2012, 64, 449-468.	0.9	266

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37	Flexible Dermal Armor in Nature. Jom, 2012, 64, 475-485.	0.9	41
38	Microstructural Characterization and Hardness Behavior of a Biological Saxidomus purpuratus Shell. Journal of Materials Science and Technology, 2011, 27, 139-146.	5.6	39
39	Structure and mechanical properties of Saxidomus purpuratus biological shells. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 1514-1530.	1.5	61
40	Structural characterization and mechanical behavior of a bivalve shell (Saxidomus purpuratus). Materials Science and Engineering C, 2011, 31, 724-729.	3.8	64
41	Mechanical Characterizations of <i>Saxidomus purpuratus</i> Shells. Key Engineering Materials, 0, 434-435, 601-604.	0.4	4
42	Arapaima Fish Scale: One of the Toughest Flexible Biological Materials. SSRN Electronic Journal, 0, , .	0.4	2