Chao Zhong

List of Publications by Year
in descending order

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Version: 2024-02-01

		172207	168136
58	3,030	29	53
papers	citations	h-index	g-index

61	61	61	3838
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Strong underwater adhesives made by self-assembling multi-protein nanofibres. Nature Nanotechnology, 2014, 9, 858-866.	15.6	370
2	A polysaccharide bioprotonic field-effect transistor. Nature Communications, 2011, 2, 476.	5.8	224
3	Programmable and printable Bacillus subtilis biofilms as engineered living materials. Nature Chemical Biology, 2019, 15, 34-41.	3.9	202
4	Materials design by synthetic biology. Nature Reviews Materials, 2021, 6, 332-350.	23.3	190
5	AAV-ie enables safe and efficient gene transfer to inner ear cells. Nature Communications, 2019, 10, 3733.	5.8	136
6	Synthesis, characterization and cytotoxicity of photo-crosslinked maleic chitosanâ€“polyethylene glycol diacrylate hybrid hydrogels. Acta Biomaterialia, 2010, 6, 3908-3918.	4.1	120
7	Engineering Living Functional Materials. ACS Synthetic Biology, 2015, 4, 8-11.	1.9	119
8	Critical role of spectrin in hearing development and deafness. Science Advances, 2019, 5, eaav7803.	4.7	113
9	A facile bottom-up route to self-assembled biogenic chitin nanofibers. Soft Matter, 2010, 6, 5298.	1.2	90
10	H+-type and OHâ^'-type biological protonic semiconductors and complementary devices. Scientific Reports, 2013, 3, 2481.	1.6	90
11	Living materials fabricated via gradient mineralization of light-inducible biofilms. Nature Chemical Biology, 2021, 17, 351-359.	3.9	85
12	A Chitin Nanofiber Ink for Airbrushing, Replica Molding, and Microcontact Printing of Selfâ€assembled Macroâ€, Microâ€, and Nanostructures. Advanced Materials, 2011, 23, 4776-4781.	11.1	78
13	Engineered Bacillus subtilis biofilms as living glues. Materials Today, 2019, 28, 40-48.	8.3	72
14	Chitin nanofiber micropatterned flexible substrates for tissue engineering. Journal of Materials Chemistry B, 2013, 1, 4217.	2.9	68
15	Exploiting mammalian low-complexity domains for liquid-liquid phase separationâ€“driven underwater adhesive coatings. Science Advances, 2019, 5, eaax3155.	4.7	62
16	Biomimetic mineralization of acid polysaccharide-based hydrogels: towards porous 3-dimensional bone-like biocomposites. Journal of Materials Chemistry, 2012, 22, 6080.	6.7	59
17	Biofilm Nanofiber-Coated Separators for Dendrite-Free Lithium Metal Anode and Ultrahigh-Rate Lithium Batteries. ACS Applied Materials & Interfaces, 2019, 11, 32373-32380.	4.0	59
18	Genetic Engineering of Filamentous Fungi for Efficient Protein Expression and Secretion. Frontiers in Bioengineering and Biotechnology, 2020, 8, 293.	2.0	50

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19	Self-assembled chitin nanofiber templates for artificial neural networks. Journal of Materials Chemistry, 2012, 22, 3105.	6.7	47
20	Natural and bio-inspired underwater adhesives: Current progress and new perspectives. APL Materials, 2017, 5, .	2.2	45
21	On the Origin of Amorphous Cores in Biomimetic CaCO₃ Spherulites: New Insights into Spherulitic Crystallization. Crystal Growth and Design, 2010, 10, 5043-5049.	1.4	44
22	Taking electrons out of bioelectronics: bioprotonic memories, transistors, and enzyme logic. Journal of Materials Chemistry C, 2015, 3, 6407-6412.	2.7	43
23	Diverse Supramolecular Nanofiber Networks Assembled by Functional Low-Complexity Domains. ACS Nano, 2017, 11, 6985-6995.	7.3	41
24	Immobilization of functional nano-objects in living engineered bacterial biofilms for catalytic applications. National Science Review, 2019, 6, 929-943.	4.6	41
25	Programming Living Glue Systems to Perform Autonomous Mechanical Repairs. Matter, 2020, 3, 2080-2092.	5.0	41
26	Programming Cells for Dynamic Assembly of Inorganic Nanoâ€Objects with Spatiotemporal Control. Advanced Materials, 2018, 30, e1705968.	11.1	40
27	Self-Assembled Nanofibers for Strong Underwater Adhesion: The Trick of Barnacles. ACS Applied Materials & Interfaces, 2018, 10, 25017-25025.	4.0	40
28	Conformable self-assembling amyloid protein coatings with genetically programmable functionality. Science Advances, 2020, 6, eaba1425.	4.7	36
29	Programming Integrative Extracellular and Intracellular Biocatalysis for Rapid, Robust, and Recyclable Synthesis of Trehalose. ACS Catalysis, 2018, 8, 1837-1842.	5.5	35
30	Patterned Amyloid Materials Integrating Robustness and Genetically Programmable Functionality. Nano Letters, 2019, 19, 8399-8408.	4.5	31
31	Panoramic insights into semi-artificial photosynthesis: origin, development, and future perspective. Energy and Environmental Science, 2022, 15, 529-549.	15.6	30
32	Acid Polysaccharide-Induced Amorphous Calcium Carbonate (ACC) Films: Colloidal Nanoparticle Self-Organization Process. Langmuir, 2009, 25, 3045-3049.	1.6	28
33	Virus Disinfection from Environmental Water Sources Using Living Engineered Biofilm Materials. Advanced Science, 2020, 7, 1903558.	5.6	28
34	Amyloid-directed assembly of nanostructures and functional devices for bionanoelectronics. Journal of Materials Chemistry B, 2015, 3, 4953-4958.	2.9	27
35	A Biâ€Layer Hydrogel Cardiac Patch Made of Recombinant Functional Proteins. Advanced Materials, 2022, 34, e2201411.	11.1	24
36	Emerging Paradigms for Synthetic Design of Functional Amyloids. Journal of Molecular Biology, 2018, 430, 3720-3734.	2.0	23

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37	Bacterial biofilms as platforms engineered for diverse applications. Biotechnology Advances, 2022, 57, 107932.	6.0	23
38	Directing curli polymerization with DNA origami nucleators. Nature Communications, 2019, 10, 1395.	5.8	22
39	Adhesive bacterial amyloid nanofiber-mediated growth of metalâ€“organic frameworks on diverse polymeric substrates. Chemical Science, 2018, 9, 5672-5678.	3.7	18
40	Modular genetic design of multi-domain functional amyloids: insights into self-assembly and functional properties. Chemical Science, 2019, 10, 4004-4014.	3.7	18
41	Photocatalyst-mineralized biofilms as living bio-abiotic interfaces for single enzyme to whole-cell photocatalytic applications. Science Advances, 2022, 8, eabm7665.	4.7	16
42	Self-assembly and morphological characterization of two-component functional amyloid proteins. Chinese Chemical Letters, 2017, 28, 1062-1068.	4.8	15
43	Lipids as integral components in mussel adhesion. Soft Matter, 2018, 14, 7145-7154.	1.2	15
44	Extensible and self-recoverable proteinaceous materials derived from scallop byssal thread. Nature Communications, 2022, 13, 2731.	5.8	8
45	Advanced engineering and biomimetic materials for bone repair and regeneration. Frontiers of Materials Science, 2013, 7, 313-334.	1.1	7
46	Diatom-inspired multiscale mineralization of patterned proteinâ€“polysaccharide complex structures. National Science Review, 2021, 8, nwaa191.	4.6	7
47	Harnessing proteins for engineered living materials. Current Opinion in Solid State and Materials Science, 2021, 25, 100896.	5.6	7
48	Biofilm-Mediated Immobilization of a Multienzyme Complex for Accelerating Inositol Production from Starch. Bioconjugate Chemistry, 2021, 32, 2032-2042.	1.8	6
49	Vertical nanopillar induces deformation of cancer cell and alteration of ATF3 expression. Applied Materials Today, 2020, 20, 100753.	2.3	5
50	Engineering microbial systems for the production and functionalization of biomaterials. Current Opinion in Microbiology, 2022, 68, 102154.	2.3	5
51	Force spectra of single bacterial amyloid CsgA nanofibers. RSC Advances, 2020, 10, 21986-21992.	1.7	4
52	Spores hit the spot. Nature Chemical Biology, 2020, 16, 108-109.	3.9	4
53	Biofilm-inspired Amyloid-Polysaccharide Composite Materials. Applied Materials Today, 2022, 27, 101497.	2.3	4
54	Probing the growth and mechanical properties of Bacillus subtilis biofilms through genetic mutation strategies. Synthetic and Systems Biotechnology, 2022, 7, 965-971.	1.8	4

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55	Nanofiber Ink: A Chitin Nanofiber Ink for Airbrushing, Replica Molding, and Microcontact Printing of Selfâ€assembled Macroâ€, Microâ€, and Nanostructures (Adv. Mater. 41/2011). Advanced Materials, 2011, 23, 4720-4720.	11.1	3
56	Functional amyloid-chitin hybrid ink coupled with flexible fabrication approaches for diverse macro and micro-structures. Materials Today Bio, 2022, 13, 100179.	2.6	3
57	Force Spectra of a Single CsgA Molecule and Amyloid Nanofibers Assembled from Chimeric Mfp5 and CBD Proteins: Implications for a Nanomaterial Testing Machine. ACS Applied Nano Materials, 2022, 5, 1758-1766.	2.4	1
58	Engineering Bacillus subtilis Biofilms as Living Functional Materials. Frontiers in Bioengineering and Biotechnology, 0, 4, .	2.0	0