Shuai Zhang

List of Publications by Year
in descending order

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53	1,914	257450 24	254184 43
papers	citations	h-index	g-index

53	53	53	3509
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Hierarchical Self-Assembly Pathways of Peptoid Helices and Sheets. Biomacromolecules, 2022, 23, 992-1008.	5.4	19
2	Rotational dynamics and transition mechanisms of surface-adsorbed proteins. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2020242119.	7.1	6
3	Impact of Nanoparticle Size and Surface Chemistry on Peptoid Self-Assembly. ACS Nano, 2022, 16, 8095-8106.	14.6	9
4	Chemically Tunable Aspect Ratio Control and Laser Refrigeration of Hexagonal Sodium Yttrium Fluoride Upconverting Materials. Crystal Growth and Design, 2022, 22, 3605-3612.	3.0	4
5	Engineering Biomolecular Selfâ€Assembly at Solidâ€“Liquid Interfaces. Advanced Materials, 2021, 33, e1905784.	21.0	25
6	Quantifying the Dynamics of Protein Self-Organization Using Deep Learning Analysis of Atomic Force Microscopy Data. Nano Letters, 2021, 21, 158-165.	9.1	17
7	Nanoparticle-Mediated Assembly of Peptoid Nanosheets Functionalized with Solid-Binding Proteins: Designing Heterostructures for Hierarchy. Nano Letters, 2021, 21, 1636-1642.	9.1	31
8	Editorial: Material Surfaces and Interfaces at the Nanoscale: From Theory to Application. Frontiers in Chemistry, 2021, 9, 656661.	3.6	1
9	Disentangling Rotational Dynamics and Ordering Transitions in a System of Self-Organizing Protein Nanorods via Rotationally Invariant Latent Representations. ACS Nano, 2021, 15, 6471-6480.	14.6	19
10	Programmable two-dimensional nanocrystals assembled from POSS-containing peptoids as efficient artificial light-harvesting systems. Science Advances, 2021, 7, .	10.3	20
11	Ion-dependent proteinâ€“surface interactions from intrinsic solvent response. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	10
12	Visualizing Solution Structure at Solid-Liquid Interfaces using Three-Dimensional Fast Force Mapping. Journal of Visualized Experiments, 2021, , .	0.3	1
13	Peptoid-directed assembly of CdSe nanoparticles. Nanoscale, 2021, 13, 1273-1282.	5.6	18
14	Assembly of a patchy protein into variable 2D lattices via tunable multiscale interactions. Nature Communications, 2020, 11, 3770.	12.8	31
15	Flexible and Insoluble Artificial Synapses Based on Chemical Crossâ€Linked Wool Keratin. Advanced Functional Materials, 2020, 30, 2002882.	14.9	42
16	The Vibration Behavior of Subâ€Micrometer Gas Vesicles in Response to Acoustic Excitation Determined via Laser Doppler Vibrometry. Advanced Functional Materials, 2020, 30, 2000239.	14.9	15
17	Sequenceâ€“Structureâ€“Binding Relationships Reveal Adhesion Behavior of the Car9 Solid-Binding Peptide: An Integrated Experimental and Simulation Study. Journal of the American Chemical Society, 2020, 142, 2355-2363.	13.7	21
18	Controlling protein assembly on inorganic crystals through designed protein interfaces. Nature, 2019, 571, 251-256.	27.8	85

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19	Hierarchical Assembly of Peptoidâ€Based Cylindrical Micelles Exhibiting Efficient Resonance Energy Transfer in Aqueous Solution. Angewandte Chemie - International Edition, 2019, 58, 12223-12230.	13.8	34
20	Hierarchical Assembly of Peptoidâ€Based Cylindrical Micelles Exhibiting Efficient Resonance Energy Transfer in Aqueous Solution. Angewandte Chemie, 2019, 131, 12351-12358.	2.0	1
21	Direct Observation of the Orientational Anisotropy of Buried Hydroxyl Groups inside Muscovite Mica. Journal of the American Chemical Society, 2019, 141, 2135-2142.	13.7	23
22	In Situ TEM and AFM Investigation of Morphological Controls during the Growth of Single Crystal BaWO₄. Crystal Growth and Design, 2018, 18, 1367-1375.	3.0	20
23	Building two-dimensional materials one row at a time: Avoiding the nucleation barrier. Science, 2018, 362, 1135-1139.	12.6	155
24	In vitro single-cell dissection revealing the interior structure of cable bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8517-8522.	7.1	45
25	Tuning crystallization pathways through sequence engineering of biomimetic polymers. Nature Materials, 2017, 16, 767-774.	27.5	116
26	Nanostructural Biomaterials and Applications. Journal of Nanomaterials, 2016, 2016, 1-2.	2.7	2
27	The Ultrastructures and Mechanical Properties of the Descementâ€™s Membrane in Fuchs Endothelial Corneal Dystrophy. Scientific Reports, 2016, 6, 23096.	3.3	32
28	Identification of a Novel Parallel Î²â€Strand Conformation within Molecular Monolayer of Amyloid Peptide. Advanced Science, 2016, 3, 1500369.	11.2	31
29	A self-assembled nanopatch with peptideâ€“organic multilayers and mechanical properties. Nanoscale, 2015, 7, 2250-2254.	5.6	13
30	Optimizing the surface density of polyethylene glycol chains by grafting from binary solvent mixtures. Applied Surface Science, 2015, 341, 134-141.	6.1	15
31	Nanostructure and mechanical properties of the osteocyte lacunar-canalicular network-associated bone matrix revealed by quantitative nanomechanical mapping. Nano Research, 2015, 8, 3250-3260.	10.4	15
32	Microfluidic Synthesis of Hybrid Nanoparticles with Controlled Lipid Layers: Understanding Flexibility-Regulated Cellâ€“Nanoparticle Interaction. ACS Nano, 2015, 9, 9912-9921.	14.6	163
33	Scaffolded multimers of hIAPP20â€“29 peptide fragments fibrillate faster and lead to different fibrils compared to the free hIAPP20â€“29 peptide fragment. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2015, 1854, 1890-1897.	2.3	11
34	Modulating AÎ²_{33â€“42} Peptide Assembly by Graphene Oxide. Chemistry - A European Journal, 2014, 20, 7236-7240.	3.3	69
35	The Importance of Being Capped: Terminal Capping of an Amyloidogenic Peptide Affects Fibrillation Propensity and Fibril Morphology. Biochemistry, 2014, 53, 6968-6980.	2.5	33
36	Hydrated Human Corneal Stroma Revealed by Quantitative Dynamic Atomic Force Microscopy at Nanoscale. ACS Nano, 2014, 8, 6873-6882.	14.6	45

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37	Quantitative biomolecular imaging by dynamic nanomechanical mapping. Chemical Society Reviews, 2014, 43, 7412-7429.	38.1	72
38	Electrospun UV-responsive supramolecular nanofibers from a cyclodextrinâ€“azobenzene inclusion complex. Journal of Materials Chemistry C, 2013, 1, 850-855.	5.5	43
39	Coexistence of ribbon and helical fibrils originating from hIAPP _{20â€“29} revealed by quantitative nanomechanical atomic force microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 2798-2803.	7.1	104
40	Quantification of the Interaction Forces between Metals and Graphene by Quantum Chemical Calculations and Dynamic Force Measurements under Ambient Conditions. ACS Nano, 2013, 7, 1646-1651.	14.6	73
41	Isothermal Hybridization Kinetics of DNA Assembly of Twoâ€Dimensional DNA Origami. Small, 2013, 9, 2954-2959.	10.0	32
42	Scanning ion conductance microscopy studies of amyloid fibrils at nanoscale. Nanoscale, 2012, 4, 3105.	5.6	27
43	Co-assembly of human islet amyloid polypeptide (hIAPP)/insulin. Chemical Communications, 2012, 48, 191-193.	4.1	46
44	2D amyloid aggregation of human islet amyloid polypeptide at the solidâ€“liquid interface. Soft Matter, 2012, 8, 1616-1622.	2.7	19
45	Modulation of fibrillation of hIAPP core fragments by chemical modification of the peptide backbone. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2012, 1824, 274-285.	2.3	14
46	2Dâ€Oriented Selfâ€Assembly of Peptides Induced by Hydrated Electrons. Chemistry - A European Journal, 2012, 18, 14614-14617.	3.3	24
47	Direct force producing uniform ultra-thin chitosan films by atomic force microscopy. RSC Advances, 2012, 2, 2732.	3.6	6
48	Collagen coated tantalum substrate for cell proliferation. Colloids and Surfaces B: Biointerfaces, 2012, 95, 10-15.	5.0	17
49	An Investigation into the Formation of Annular Aggregates of Human Islet Amyloid Polypeptide on Tantalum Oxide Surfaces. Chemistry - A European Journal, 2012, 18, 2493-2497.	3.3	6
50	Building the First Hydration Shell of Deprotonated Glycine by the MCMM and ab Initio Methods. Journal of Physical Chemistry B, 2011, 115, 6213-6221.	2.6	14
51	Mixed poly (ethylene glycol) and oligo (ethylene glycol) layers on gold as nonfouling surfaces created by backfilling. Biointerphases, 2011, 6, 180-188.	1.6	25
52	The role of self-assembling polypeptides in building nanomaterials. Physical Chemistry Chemical Physics, 2011, 13, 17435.	2.8	68
53	Morphologies, Preparations and Applications of Layered Double Hydroxide Micro-/Nanostructures. Materials, 2010, 3, 5220-5235.	2.9	127