Jian-Jun Wang

List of Publications by Year
in descending order

110 papers	7,216 citations	61984 43 h-index	56724 83 g-index
114 all docs	114 docs citations	114 times ranked	5520 citing authors

#	Article	IF	Citations
1	Strong Hydration Ability of Silk Fibroin Suppresses Formation and Recrystallization of Ice Crystals During Cryopreservation. Biomacromolecules, 2022, 23, 478-486.	5.4	12
2	Gold Nanoprobes Exploring the Ice Structure in the Aqueous Dispersion of Poly(Ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 702 Td (	3.5	4
3	Transparent, Photothermal, and Icephobic Surfaces via Layerâ€byâ€Layer Assembly. Advanced Science, 2022, 9, e2105986.	11.2	14
4	Bioinspired Ice-Binding Materials for Tissue and Organ Cryopreservation. Journal of the American Chemical Society, 2022, 144, 5685-5701.	13.7	42
5	Bioinspired solar anti-icing/de-icing surfaces based on phase-change materials. Science China Materials, 2022, 65, 1369-1376.	6.3	25
6	Ice Recrystallization Inhibition Activity of Protein Mimetic Peptoids. Journal of Inorganic and Organometallic Polymers and Materials, 2021, 31, 203-208.	3.7	8
7	Bio-inspired Ice-controlling Materials for Cryopreservation of Cells and Tissues. Acta Chimica Sinica, 2021, 79, 729.	1.4	1
8	Solar anti-icing surface with enhanced condensate self-removing at extreme environmental conditions. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	63
9	Nonionic and Water-Soluble Poly(<scp>d</scp>/<scp>l</scp>-serine) as a Promising Biomedical Polymer for Cryopreservation. ACS Applied Materials & Interfaces, 2021, 13, 18454-18461.	8.0	14
10	Bioinspired Crowding Inhibits Explosive Ice Growth in Antifreeze Protein Solutions. Biomacromolecules, 2021, 22, 2614-2624.	5.4	9
11	Spontaneous Freezing of Water between 233 and 235 K Is Not Due to Homogeneous Nucleation. Journal of the American Chemical Society, 2021, 143, 13548-13556.	13.7	5
12	Ion-Specific Effects on the Growth of Single Ice Crystals. Journal of Physical Chemistry Letters, 2021, 12, 8726-8731.	4.6	10
13	All-Day Anti-Icing/Deicing Film Based on Combined Photo-Electro-Thermal Conversion. ACS Applied Materials & Interfaces, 2021, 13, 44948-44955.	8.0	46
14	Bioinspired <i>in situ</i> repeatable self-recovery of superhydrophobicity by self-reconstructing the hierarchical surface structure. Chemical Communications, 2021, 57, 8425-8428.	4.1	8
15	Hydrogen polarity of interfacial water regulates heterogeneous ice nucleation. Physical Chemistry Chemical Physics, 2020, 22, 258-264.	2.8	10
16	Iodine-124 Labeled Gold Nanoclusters for Positron Emission Tomography Imaging in Lung Cancer Model. Journal of Nanoscience and Nanotechnology, 2020, 20, 1375-1382.	0.9	11
17	Use of Ion Exchange To Regulate the Heterogeneous Ice Nucleation Efficiency of Mica. Journal of the American Chemical Society, 2020, 142, 17956-17965.	13.7	26
18	Unraveling Molecular Mechanism on Dilute Surfactant Solution Controlled Ice Recrystallization. Langmuir, 2020, 36, 1691-1698.	3.5	8

#	Article	IF	Citations
19	Vertically aligned reduced graphene oxide/Ti3C2Tx MXene hybrid hydrogel for highly efficient solar steam generation. Nano Research, 2020, 13, 3048-3056.	10.4	163
20	Suppressing ice growth by integrating the dual characteristics of antifreeze proteins into biomimetic two-dimensional graphene derivatives. Journal of Materials Chemistry A, 2020, 8, 23555-23562.	10.3	20
21	Precise Control Over Kinetics of Molecular Assembly: Production of Particles with Tunable Sizes and Crystalline Forms. Angewandte Chemie, 2020, 132, 15253-15258.	2.0	2
22	Precise Control Over Kinetics of Molecular Assembly: Production of Particles with Tunable Sizes and Crystalline Forms. Angewandte Chemie - International Edition, 2020, 59, 15141-15146.	13.8	8
23	Highly efficient solar anti-icing/deicing <i>via</i> a hierarchical structured surface. Materials Horizons, 2020, 7, 2097-2104.	12.2	108
24	Recrystallized ice-templated electroless plating for fabricating flexible transparent copper meshes. RSC Advances, 2020, 10, 9894-9901.	3.6	10
25	Bioinspired <scp>l</scp>-Proline Oligomers for the Cryopreservation of Oocytes <i>via</i> Controlling Ice Growth. ACS Applied Materials & Interfaces, 2020, 12, 18352-18362.	8.0	52
26	Inhibiting Condensation Freezing on Patterned Polyelectrolyte Coatings. ACS Nano, 2020, 14, 5000-5007.	14.6	32
27	Competing Effects between Condensation and Self-Removal of Water Droplets Determine Antifrosting Performance of Superhydrophobic Surfaces. ACS Applied Materials & Interfaces, 2020, 12, 7805-7814.	8.0	52
28	Bioinspired Multifunctional Anti-icing Hydrogel. Matter, 2020, 2, 723-734.	10.0	150
29	Rationally designed surface microstructural features for enhanced droplet jumping and anti-frosting performance. Soft Matter, 2020, 16, 4462-4476.	2.7	30
30	Size-Dependent Interfacial Assembly of Graphene Oxide at Waterâ€“Oil Interfaces. Journal of Physical Chemistry B, 2020, 124, 4835-4842.	2.6	14
31	Bioinspired Cryoprotectants of Glucose-Based Carbon Dots. ACS Applied Bio Materials, 2020, 3, 3785-3791.	4.6	21
32	Direct observation of 2-dimensional ices on different surfaces near room temperature without confinement. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 16723-16728.	7.1	33
33	Bioinspired Ice Growth Inhibitors Based on Self-Assembling Peptides. ACS Macro Letters, 2019, 8, 1383-1390.	4.8	27
34	A Freezingâ€Induced Turnâ€On Imaging Modality for Realâ€Time Monitoring of Cancer Cells in Cryosurgery. Angewandte Chemie, 2019, 131, 3874-3877.	2.0	7
35	Spreading fully at the ice-water interface is required for high ice recrystallization inhibition activity. Science China Chemistry, 2019, 62, 909-915.	8.2	39
36	Metalâ€“catechol complexes mediate ice nucleation. Chemical Communications, 2019, 55, 6413-6416.	4.1	7

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37	Hydroxyl Groups on the Graphene Surfaces Facilitate Ice Nucleation. Journal of Physical Chemistry Letters, 2019, 10, 2458-2462.	4.6	24
38	Modifying Surfaces with the Primary and Secondary Faces of Cyclodextrins To Achieve a Distinct Anti-icing Capability. Langmuir, 2019, 35, 5176-5182.	3.5	3
39	Heterogeneous ice nucleation correlates with bulk-like interfacial water. Science Advances, 2019, 5, eaat9825.	10.3	60
40	Airâ€Stable nâ€Type Thermoelectric Materials Enabled by Organic Diradicaloids. Angewandte Chemie, 2019, 131, 5012-5016.	2.0	64
41	Airâ€Stable nâ€Type Thermoelectric Materials Enabled by Organic Diradicaloids. Angewandte Chemie - International Edition, 2019, 58, 4958-4962.	13.8	92
42	Probing the critical nucleus size for ice formation with graphene oxide nanosheets. Nature, 2019, 576, 437-441.	27.8	268
43	Bioinspired Polydopamine/Polyzwitterion Coatings for Underwater Anti-Oil and -Freezing Surfaces. Langmuir, 2019, 35, 1895-1901.	3.5	47
44	Directional freezing of binary colloidal suspensions: a model for size fractionation of graphene oxide. Soft Matter, 2019, 15, 243-251.	2.7	5
45	A Freezingâ€Induced Turnâ€On Imaging Modality for Realâ€Time Monitoring of Cancer Cells in Cryosurgery. Angewandte Chemie - International Edition, 2019, 58, 3834-3837.	13.8	44
46	Bioinspired Materials for Controlling Ice Nucleation, Growth, and Recrystallization. Accounts of Chemical Research, 2018, 51, 1082-1091.	15.6	159
47	Fabrication of Anti-Icing Surfaces by Short Î±-Helical Peptides. ACS Applied Materials & Interfaces, 2018, 10, 1957-1962.	8.0	36
48	Urea and plasma ice-nucleating proteins promoted the modest freeze tolerance in Pleskeâ€™s high altitude frog Nanorana pleskei. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2018, 188, 599-610.	1.5	10
49	Interfacial Materials for Antiâ€Icing: Beyond Superhydrophobic Surfaces. Chemistry - an Asian Journal, 2018, 13, 1406-1414.	3.3	25
50	Tuning Ice Nucleation and Propagation with Counterions on Multilayer Hydrogels. Langmuir, 2018, 34, 11986-11991.	3.5	17
51	Graphene Oxide Restricts Growth and Recrystallization of Ice Crystals. Angewandte Chemie, 2017, 129, 1017-1021.	2.0	33
52	Ion-specific ice propagation behavior on polyelectrolyte brush surfaces. RSC Advances, 2017, 7, 840-844.	3.6	34
53	Ion-specific ice recrystallization provides a facile approach for the fabrication of porous materials. Nature Communications, 2017, 8, 15154.	12.8	71
54	Bioinspired Solid Organogel Materials with a Regenerable Sacrificial Alkane Surface Layer. Advanced Materials, 2017, 29, 1700865.	21.0	109

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55	Oxidized Quasiâ€Carbon Nitride Quantum Dots Inhibit Ice Growth. Advanced Materials, 2017, 29, 1606843.	21.0	121
56	Graphene Oxide Restricts Growth and Recrystallization of Ice Crystals. Angewandte Chemie - International Edition, 2017, 56, 997-1001.	13.8	186
57	Distinct ice patterns on solid surfaces with various wettabilities. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11285-11290.	7.1	132
58	Antiadhesion Organogel Materials: From Liquid to Solid. Advanced Materials, 2017, 29, 1703032.	21.0	70
59	Size Controllable, Transparent, and Flexible 2D Silver Meshes Using Recrystallized Ice Crystals as Templates. ACS Nano, 2017, 11, 9898-9905.	14.6	38
60	Size Fractionation of Graphene Oxide Nanosheets via Controlled Directional Freezing. Journal of the American Chemical Society, 2017, 139, 12517-12523.	13.7	52
61	Control of ice growth and recrystallization by sulphur-doped oxidized quasi-carbon nitride quantum dots. Carbon, 2017, 124, 415-421.	10.3	20
62	Effect of antifreeze protein on heterogeneous ice nucleation based on a two-dimensional random-field Ising model. Physical Review E, 2017, 95, 052140.	2.1	6
63	Control of Ice Propagation by Using Polyelectrolyte Multilayer Coatings. Angewandte Chemie - International Edition, 2017, 56, 11436-11439.	13.8	41
64	Control of Ice Propagation by Using Polyelectrolyte Multilayer Coatings. Angewandte Chemie, 2017, 129, 11594-11597.	2.0	1
65	Inhibition of Heterogeneous Ice Nucleation by Bioinspired Coatings of Polyampholytes. ACS Applied Materials & Interfaces, 2017, 9, 30092-30099.	8.0	34
66	Guided Selfâ€Propelled Leaping of Droplets on a Microâ€Anisotropic Superhydrophobic Surface. Angewandte Chemie - International Edition, 2016, 55, 4265-4269.	13.8	135
67	Guided Selfâ€Propelled Leaping of Droplets on a Microâ€Anisotropic Superhydrophobic Surface. Angewandte Chemie, 2016, 128, 4337-4341.	2.0	26
68	Janus effect of antifreeze proteins on ice nucleation. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 14739-14744.	7.1	205
69	Tuning ice nucleation with counterions on polyelectrolyte brush surfaces. Science Advances, 2016, 2, e1600345.	10.3	134
70	Tuning Ice Nucleation with Supercharged Polypeptides. Advanced Materials, 2016, 28, 5008-5012.	21.0	59
71	Selfâ€Replenishable Antiâ€Waxing Organogel Materials. Angewandte Chemie - International Edition, 2015, 54, 8975-8979.	13.8	71
72	Novel amphoteric ion exchange membranes by blending sulfonated poly(ether ether) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 67 Td (keton Materials Chemistry A, 2015, 3, 17590-17597.	10.3	91

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73	Anisotropy of Local Stress Tensor Leads to Line Tension. Scientific Reports, 2015, 5, 9491.	3.3	7
74	Organogel as durable anti-icing coatings. Science China Materials, 2015, 58, 559-565.	6.3	116
75	Novel sulfonated polyimide/polyvinyl alcohol blend membranes for vanadium redox flow battery applications. Journal of Materials Chemistry A, 2015, 3, 2072-2081.	10.3	65
76	Temperatureâ€Driven Switching of Water Adhesion on Organogel Surface. Advanced Materials, 2014, 26, 1895-1900.	21.0	165
77	Organogels: Temperature-Driven Switching of Water Adhesion on Organogel Surface (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Overlock	21.0	0
78	Viscosity of interfacial water regulates ice nucleation. Applied Physics Letters, 2014, 104, .	3.3	23
79	Contact line pinning and the relationship between nanobubbles and substrates. Journal of Chemical Physics, 2014, 140, 054705.	3.0	61
80	Bio-Inspired Strategies for Anti-Icing. ACS Nano, 2014, 8, 3152-3169.	14.6	760
81	Facile preparation of composites composed of high performance thermoplastic and difficult-to-process functional polymer. RSC Advances, 2014, 4, 31874.	3.6	2
82	Antiâ€Ice Coating Inspired by Ice Skating. Small, 2014, 10, 4693-4699.	10.0	157
83	Anti-icing Coating with an Aqueous Lubricating Layer. ACS Applied Materials & Interfaces, 2014, 6, 6998-7003.	8.0	292
84	Beyond Cassie equation: Local structure of heterogeneous surfaces determines the contact angles of microdroplets. Scientific Reports, 2014, 4, 5822.	3.3	24
85	Surface-mediated buckling of coreâ€“shell spheres for the formation of oriented anisotropic particles with tunable morphologies. Soft Matter, 2013, 9, 2589.	2.7	8
86	Anti-icing surfaces based on enhanced self-propelled jumping of condensed water microdroplets. Chemical Communications, 2013, 49, 4516.	4.1	266
87	A convenient quantitative study of polymer mesophase induced by isothermal annealing. RSC Advances, 2013, 3, 12631.	3.6	3
88	Hierarchical Porous Surface for Efficiently Controlling Microdroplets' Selfâ€Removal. Advanced Materials, 2013, 25, 2291-2295.	21.0	126
89	Robust Prototypical Anti-icing Coatings with a Self-lubricating Liquid Water Layer between Ice and Substrate. ACS Applied Materials & Interfaces, 2013, 5, 4026-4030.	8.0	269
90	Superhydrophobic surfaces cannot reduce ice adhesion. Applied Physics Letters, 2012, 101, .	3.3	282

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91	Observation of flower-like patterns in syndiotactic polystyrene/carbon nanotube nanocomposite films. RSC Advances, 2012, 2, 7964.	3.6	2
92	Hierarchically structured porous aluminum surfaces for high-efficient removal of condensed water. Soft Matter, 2012, 8, 6680.	2.7	146
93	Investigating the Effects of Solid Surfaces on Ice Nucleation. Langmuir, 2012, 28, 10749-10754.	3.5	139
94	Condensation mode determines the freezing of condensed water on solid surfaces. Soft Matter, 2012, 8, 8285.	2.7	64
95	Orientation studies of uniaxial drawn syndiotactic polystyrene/carbon nanotube nanocomposite films. Soft Matter, 2011, 7, 4039.	2.7	28
96	Controllable Synthesis of Latex Particles with Multicavity Structures. Macromolecules, 2011, 44, 2404-2409.	4.8	46
97	Superhydrophobic surface at low surface temperature. Applied Physics Letters, 2011, 98, .	3.3	86
98	Super-hydrophobic surfaces to condensed micro-droplets at temperatures below the freezing point retard ice/frost formation. Soft Matter, 2011, 7, 3993.	2.7	201
99	Closed-air induced composite wetting on hydrophilic ordered nanoporous anodic alumina. Applied Physics Letters, 2010, 97, .	3.3	37
100	High performance ultraviolet photodetectors based on an individual Zn2SnO4 single crystalline nanowire. Journal of Materials Chemistry, 2010, 20, 9858.	6.7	46
101	Recent Research Progress in the Synthesis of Polyphosphazene and Their Applications. Designed Monomers and Polymers, 2009, 12, 357-375.	1.6	29
102	Synthesis and electrochemical properties of phloroglucinâ€based ferrocenyl compounds and their application in anion recognition. Journal of Applied Polymer Science, 2008, 107, 1539-1546.	2.6	8
103	Electrochemical behaviors of poly(ferrocenylsilane) solutions. Journal of Applied Polymer Science, 2007, 103, 789-794.	2.6	7
104	Manifestation of electrolyte ion size effect on electrochemical behavior of poly(ferrocenylsilane) films. Journal of Applied Polymer Science, 2006, 101, 515-523.	2.6	4
105	Study on ethylene (co)polymerization and its kinetics catalyzed by a reversible crosslinked polystyrene-supported metallocene catalyst. Journal of Applied Polymer Science, 2005, 97, 1632-1636.	2.6	8
106	Preparation of Nano-Polyethylene Fibers and Floccules by Extrusion Polymerization Under Atmospheric Pressure Using the SBA-15-Supported Cp2ZrCl2 Catalytic System. Macromolecular Materials and Engineering, 2005, 290, 31-37.	3.6	26
107	Preparation and characterization of dendritic silver nanoparticles. Journal of Materials Science, 2005, 40, 1681-1683.	3.7	38
108	A novel paramagnetic polymeric sensor material sensitive to organic molecules. Journal of Materials Science, 2005, 40, 4807-4810.	3.7	0

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109	Novel polystyrene-supported zirconocene catalyst for olefin polymerization and its catalytic kinetics. Journal of Polymer Science Part A, 2005, 43, 2650-2656.	2.3	16
110	Electrochemical behavior of high-molecular-weight poly(ferrocenylsilane) films in aqueous electrolyte solutions. Journal of Polymer Science, Part B: Polymer Physics, 2004, 42, 2245-2253.	2.1	23