Feng Shi

List of Publications by Year in descending order

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120 papers	7,460 citations	57631 44 h-index	56606 83 g-index
123 all docs	123 docs citations	123 times ranked	8284 citing authors

#	Article	IF	Citations
1	Superhydrophobic surfaces: from structural control to functional application. Journal of Materials Chemistry, 2008, 18, 621-633.	6.7	1,560
2	Polyelectrolyte Multilayer as Matrix for Electrochemical Deposition of Gold Clusters:â€‰ Toward Super-Hydrophobic Surface. Journal of the American Chemical Society, 2004, 126, 3064-3065.	6.6	627
3	Combining Layer-by-Layer Assembly with Electrodeposition of Silver Aggregates for Fabricating Superhydrophobic Surfaces. Langmuir, 2005, 21, 4713-4716.	1.6	319
4	Three-Dimensional Tubular MoS₂/PANI Hybrid Electrode for High Rate Performance Supercapacitor. ACS Applied Materials & Interfaces, 2015, 7, 28294-28302.	4.0	231
5	Extraordinary drag-reducing effect of a superhydrophobic coating on a macroscopic model ship at high speed. Journal of Materials Chemistry A, 2013, 1, 5886.	5.2	221
6	Breathable Ti₃C₂T_x MXene/Protein Nanocomposites for Ultrasensitive Medical Pressure Sensor with Degradability in Solvents. ACS Nano, 2021, 15, 9746-9758.	7.3	198
7	Self-Assembled Monolayers of Dendron Thiols for Electrodeposition of Gold Nanostructures:â€‰ Toward Fabrication of Superhydrophobic/Superhydrophilic Surfaces and pH-Responsive Surfaces. Langmuir, 2005, 21, 1986-1990.	1.6	178
8	Facile Method To Fabricate a Large-Scale Superhydrophobic Surface by Galvanic Cell Reaction. Chemistry of Materials, 2006, 18, 1365-1368.	3.2	138
9	A Functionally Integrated Device for Effective and Facile Oil Spill Cleanup. Langmuir, 2011, 27, 7371-7375.	1.6	132
10	Bellâ€Shaped Superhydrophilicâ€“Superhydrophobicâ€“Superhydrophilic Double Transformation on a pHâ€Responsive Smart Surface. Advanced Materials, 2014, 26, 306-310.	11.1	126
11	Covalent layer-by-layer films: chemistry, design, and multidisciplinary applications. Chemical Society Reviews, 2018, 47, 5061-5098.	18.7	122
12	Surface Adhesive Forces: A Metric Describing the Dragâ€Reducing Effects of Superhydrophobic Coatings. Small, 2015, 11, 1665-1671.	5.2	116
13	A pH-responsive smart surface for the continuous separation of oil/water/oil ternary mixtures. NPG Asia Materials, 2014, 6, e111-e111.	3.8	101
14	Î´-MnO₂/holey graphene hybrid fiber for all-solid-state supercapacitor. Journal of Materials Chemistry A, 2016, 4, 9088-9096.	5.2	101
15	Macroscopic Supramolecular Assembly of Rigid Building Blocks Through a Flexible Spacing Coating. Advanced Materials, 2014, 26, 3009-3013.	11.1	98
16	Roselike Microstructures Formed by Direct In Situ Hydrothermal Synthesis:â€‰ From Superhydrophilicity to Superhydrophobicity. Chemistry of Materials, 2005, 17, 6177-6180.	3.2	97
17	Artificial Nacre by Alternating Preparation of Layer-by-Layer Polymer Films and CaCO3Strata. Chemistry of Materials, 2007, 19, 1974-1978.	3.2	85
18	Elasticityâ€Dependent Fast Underwater Adhesion Demonstrated by Macroscopic Supramolecular Assembly. Angewandte Chemie - International Edition, 2018, 57, 8963-8967.	7.2	79

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19	Switchable Surface Properties through the Electrochemical or Biocatalytic Generation of Ag0Nanoclusters on Monolayer-Functionalized Electrodes. Journal of the American Chemical Society, 2006, 128, 1253-1260.	6.6	78
20	Smart Transportation Between Three Phases Through a Stimulusâ€Responsive Functionally Cooperating Device. Advanced Materials, 2013, 25, 2915-2919.	11.1	75
21	Improving the Durability of a Drag-Reducing Nanocoating by Enhancing Its Mechanical Stability. ACS Applied Materials & Interfaces, 2015, 7, 4275-4282.	4.0	73
22	A Facile Method To Prepare Superhydrophobic Coatings by Calcium Carbonate. Industrial & Engineering Chemistry Research, 2011, 50, 3089-3094.	1.8	72
23	Surface-Imprinted Nanostructured Layer-by-Layer Film for Molecular Recognition of Theophylline Derivatives. Langmuir, 2008, 24, 11988-11994.	1.6	63
24	A facile method to fabricate functionally integrated devices for oil/water separation. Nanoscale, 2015, 7, 4553-4558.	2.8	61
25	Stable Hydrogen-Bonding Complexes of Poly(4-vinylpyridine) and Polydiacetylenes for Photolithography and Sensing. Macromolecules, 2009, 42, 4110-4117.	2.2	60
26	Precise Macroscopic Supramolecular Assembly by Combining Spontaneous Locomotion Driven by the Marangoni Effect and Molecular Recognition. Angewandte Chemie - International Edition, 2015, 54, 8952-8956.	7.2	59
27	Optical Management with Nanoparticles for a Light Conversion Efficiency Enhancement in Inorganic Î³-CsPbI‹sub›3‹/sub› Solar Cells. Nano Letters, 2019, 19, 1796-1804.	4.5	58
28	Design of a UV-responsive microactuator on a smart device for light-induced ON-OFF-ON motion. NPG Asia Materials, 2014, 6, e128-e128.	3.8	56
29	Facile Method for the Fabrication of Robust Polyelectrolyte Multilayers by Post-Photo-Cross-Linking of Azido Groups. Langmuir, 2012, 28, 7096-7100.	1.6	55
30	Combining the Marangoni Effect and the pHâ€Responsive Superhydrophobicityâ€“Superhydrophilicity Transition to Biomimic the Locomotion Process of the Beetles of Genus ‹i›Stenus‹/i›. Small, 2013, 9, 2509-2514.	5.2	55
31	pHâ€Responsive Onâ€Off Motion of a Superhydrophobic Boat: Towards the Design of a Minirobot. Small, 2014, 10, 859-865.	5.2	55
32	Converting Chemical Energy Into Electricity through a Functionally Cooperating Device with Divingâ€“Surfacing Cycles. Advanced Materials, 2014, 26, 7059-7063.	11.1	53
33	Modulus-regulated 3D-cell proliferation in an injectable self-healing hydrogel. Colloids and Surfaces B: Biointerfaces, 2017, 149, 168-173.	2.5	52
34	Macroscopic Supramolecular Assembly to Fabricate 3D Ordered Structures: Towards Potential Tissue Scaffolds with Targeted Modification. Advanced Functional Materials, 2015, 25, 6851-6857.	7.8	51
35	Patterned Polyelectrolyte Multilayer:Â Surface Modification for Enhancing Selective Adsorption. Langmuir, 2005, 21, 1599-1602.	1.6	49
36	Reversible Disulfide Cross-Linking in Layer-by-Layer Films:Â Preassembly Enhanced Loading and pH/Reductant Dually Controllable Release. Langmuir, 2007, 23, 6377-6384.	1.6	49

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37	Divingâ€“Surfacing Cycle Within a Stimulusâ€responsive Smart Device Towards Developing Functionally Cooperating Systems. Advanced Materials, 2010, 22, 5125-5128.	11.1	49
38	Directed evolution and mutagenesis of glutamate decarboxylase from Lactobacillus brevis Lb85 to broaden the range of its activity toward a near-neutral pH. Enzyme and Microbial Technology, 2014, 61-62, 35-43.	1.6	49
39	Combined pretreatment using ozonolysis and ball milling to improve enzymatic saccharification of corn straw. Bioresource Technology, 2015, 179, 444-451.	4.8	49
40	Selfâ€Correction Strategy for Precise, Massive, and Parallel Macroscopic Supramolecular Assembly. Advanced Materials, 2017, 29, 1702444.	11.1	49
41	Layer-by-Layer Self-Assembly under High Gravity Field. Langmuir, 2012, 28, 9849-9856.	1.6	48
42	Intercalation and delamination behavior of Ti₃C₂T_xand MnO₂/Ti₃C₂T_x/RGO flexible fibers with high volumetric capacitance. Journal of Materials Chemistry A, 2019, 7, 12582-12592.	5.2	48
43	Combining Magnetic Field Induced Locomotion and Supramolecular Interaction to Micromanipulate Glass Fibers: Toward Assembly of Complex Structures at Mesoscale. Langmuir, 2011, 27, 6559-6564.	1.6	47
44	Parallel and Precise Macroscopic Supramolecular Assembly through Prolonged Marangoni Motion. Angewandte Chemie - International Edition, 2018, 57, 14106-14110.	7.2	47
45	Magnetically directed clean-up of underwater oil spills through a functionally integrated device. Journal of Materials Chemistry A, 2013, 1, 13411.	5.2	46
46	Biomimicking of a Swim Bladder and Its Application as a Miniâ€Generator. Advanced Materials, 2017, 29, 1603312.	11.1	45
47	Î´-MnO₂nanofiber/single-walled carbon nanotube hybrid film for all-solid-state flexible supercapacitors with high performance. Journal of Materials Chemistry A, 2017, 5, 19107-19115.	5.2	44
48	Electricity Generation through Lightâ€Responsive Divingâ€“Surfacing Locomotion of a Functionally Cooperating Smart Device. Advanced Materials, 2018, 30, e1803125.	11.1	42
49	Hollow polydopamine colloidal composite particles: Structure tuning, functionalization and applications. Journal of Colloid and Interface Science, 2018, 513, 43-52.	5.0	41
50	Direct, Rapid, Facile Photochemical Method for Preparing Copper Nanoparticles and Copper Patterns. Langmuir, 2012, 28, 14461-14469.	1.6	36
51	Supramolecular Assembly of Macroscopic Building Blocks Through Selfâ€Propelled Locomotion by Dissipating Chemical Energy. Small, 2014, 10, 3907-3911.	5.2	36
52	A Facile Method to Prepare Molecularly Imprinted Layer-by-Layer Nanostructured Multilayers Using Postinfiltration and a Subsequent Photo-Cross-Linking Strategy. ACS Applied Materials & Interfaces, 2013, 5, 8308-8313.	4.0	35
53	Macroscopic Supramolecular Assembly and Its Applications. Chinese Journal of Polymer Science (English Edition), 2018, 36, 306-321.	2.0	34
54	Divingâ€“Surfacing Smart Locomotion Driven by a CO₂â€Forming Reaction, with Applications to Minigenerators. Advanced Functional Materials, 2016, 26, 851-856.	7.8	33

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55	Tackling the Short-Lived Marangoni Motion Using a Supramolecular Strategy. CCS Chemistry, 2019, 1, 148-155.	4.6	33
56	Poly(acrylic acid)-Bearing Photoreactive Azido Groups for Stabilizing Multilayer Films. Langmuir, 2009, 25, 2949-2955.	1.6	32
57	Programmable Macroscopic Supramolecular Assembly through Combined Molecular Recognition and Magnetic Field-Assisted Localization. ACS Applied Materials & Interfaces, 2014, 6, 7572-7578.	4.0	32
58	Surface photo-anchored PNIPAM crosslinked membrane on glass substrate by covalent bonds. Applied Surface Science, 2014, 307, 7-12.	3.1	30
59	A facile method for the construction of stable polymerâ€“inorganic nanoparticle composite multilayers. Journal of Materials Chemistry A, 2013, 1, 11329.	5.2	29
60	pHâ€Responsive Roundâ€Way Motions of a Smart Device through Integrating Two Types of Chemical Actuators in One Smart System. Advanced Functional Materials, 2015, 25, 5786-5793.	7.8	29
61	Facile Fabrication of Mesoporous Hierarchical Co-Doped ZnO for Highly Sensitive Ethanol Detection. Industrial & Engineering Chemistry Research, 2019, 58, 8061-8071.	1.8	29
62	To Adjust Wetting Properties of Organic Surface by In Situ Photoreaction of Aromatic Azide. Langmuir, 2007, 23, 1253-1257.	1.6	27
63	Converting Chemical Energy to Electricity through a Three-Jaw Mini-Generator Driven by the Decomposition of Hydrogen Peroxide. ACS Applied Materials & Interfaces, 2016, 8, 11403-11411.	4.0	27
64	Magneticâ€Fieldâ€Induced Locomotion of Glass Fibers on Water Surfaces: Towards the Understanding of How Much Force One Magnetic Nanoparticle Can Deliver. Advanced Materials, 2009, 21, 1927-1930.	11.1	26
65	Post-infiltration and subsequent photo-crosslinking strategy for layer-by-layer fabrication of stable dendrimers enabling repeated loading and release of hydrophobic molecules. Journal of Materials Chemistry B, 2015, 3, 562-569.	2.9	26
66	Highly flexible all-solid-state cable-type supercapacitors based on Cu/reduced graphene oxide/manganese dioxide fibers. RSC Advances, 2017, 7, 10092-10099.	1.7	25
67	Fabrication of 3D Ordered Structures with Multiple Materials via Macroscopic Supramolecular Assembly. Advanced Science, 2020, 7, 2002025.	5.6	25
68	Precise Macroscopic Supramolecular Assemblies: Strategies and Applications. Chemistry - A European Journal, 2020, 26, 15763-15778.	1.7	25
69	Oneâ€Pot Hydrothermal Synthesis and Photocatalytic Hydrogen Evolution of Pyrochlore Type K₂Nb₂O₆. Chinese Journal of Chemistry, 2014, 32, 485-490.	2.6	24
70	Chemical and Equipment-Free Strategy To Fabricate Water/Oil Separating Materials for Emergent Oil Spill Accidents. Langmuir, 2017, 33, 2664-2670.	1.6	24
71	Preparation and formation process of Î±-MnS@MoS2 microcubes with hierarchical core/shell structure. Journal of Colloid and Interface Science, 2017, 507, 18-26.	5.0	24
72	Performance enhancement in up-conversion nanoparticle-embedded perovskite solar cells by harvesting near-infrared sunlight. Materials Chemistry Frontiers, 2019, 3, 2058-2065.	3.2	23

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73	Removal of Oil Spills through a Selfâ€Propelled Smart Device. Chemistry - an Asian Journal, 2019, 14, 2435-2439.	1.7	23
74	Visualizing polymer diffusion in hydrogel self-healing. , 2022, 1, 100009.		23
75	A facile method for the fabrication of covalently linked PAH/PSS layer-by-layer films. RSC Advances, 2014, 4, 5683.	1.7	22
76	Controlled exponential growth in layer-by-layer multilayers using high gravity fields. Journal of Materials Chemistry A, 2014, 2, 14048.	5.2	22
77	Generating induced current through the diving-surfacing motion of a stimulusâ€“responsive smart device. Nano Energy, 2016, 20, 233-243.	8.2	21
78	Macroscopic Supramolecular Assembly Strategy to Construct 3D Biocompatible Microenvironments with Site-Selective Cell Adhesion. ACS Applied Materials & Interfaces, 2021, 13, 28774-28781.	4.0	21
79	Programmable Phase Transitions in a Photonic Microgel System: Linking Soft Interactions to a Temporal pH Gradient. Langmuir, 2017, 33, 2011-2016.	1.6	20
80	A facile method to immobilize cucurbituril on surfaces through photocrosslinking with azido groups. Chemical Communications, 2013, 49, 8093.	2.2	19
81	Overexpression of ppc and lysC to improve the production of 4-hydroxyisoleucine and its precursor l-isoleucine in recombinant Corynebacterium glutamicum ssp. lactofermentum. Enzyme and Microbial Technology, 2016, 87-88, 79-85.	1.6	19
82	Mechanochemical Phosphorylation and Solubilisation of Î²-D-Glucan from Yeast Saccharomyces cerevisiae and Its Biological Activities. PLoS ONE, 2014, 9, e103494.	1.1	19
83	Rational design and controllable preparation of holey MnO₂ nanosheets. Chemical Communications, 2017, 53, 2950-2953.	2.2	18
84	Sufficient NADPH supply and pknG deletion improve 4-hydroxyisoleucine production in recombinant Corynebacterium glutamicum. Enzyme and Microbial Technology, 2018, 115, 1-8.	1.6	17
85	Macroscopic Supramolecular Assembly through Electrostatic Interactions Based on a Flexible Spacing Coating. Macromolecular Rapid Communications, 2018, 39, e1800180.	2.0	16
86	Mass transfer, detection and repair technologies in micro-LED displays. Science China Materials, 2022, 65, 2128-2153.	3.5	16
87	Fabricating Transparent Multilayers with UV and Near-IR Double-Blocking Properties through Layer-by-Layer Assembly. Industrial & Engineering Chemistry Research, 2013, 52, 13393-13400.	1.8	15
88	Adjusting the Ion Permeability of Polyelectrolyte Multilayers through Layer-by-Layer Assembly under a High Gravity Field. ACS Applied Materials & Interfaces, 2015, 7, 10920-10927.	4.0	15
89	High-tolerance crystalline hydrogels formed from self-assembling cyclic dipeptide. Beilstein Journal of Nanotechnology, 2019, 10, 1894-1901.	1.5	15
90	Mesoporous-assembled MnO₂ with large specific surface area. Journal of Materials Chemistry A, 2015, 3, 14567-14572.	5.2	14

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91	Parallel and Precise Macroscopic Supramolecular Assembly through Prolonged Marangoni Motion. Angewandte Chemie, 2018, 130, 14302-14306.	1.6	14
92	Design of functionally cooperating systems and application towards self-propulsive mini-generators. Materials Chemistry Frontiers, 2021, 5, 129-150.	3.2	14
93	Elastic-Modulus-Dependent Macroscopic Supramolecular Assembly of Poly(dimethylsiloxane) for Understanding Fast Interfacial Adhesion. Langmuir, 2021, 37, 4276-4283.	1.6	14
94	Functionally Cooperating Miniâ€Generator: From Bacterial Fermentation to Electricity. Advanced Functional Materials, 2019, 29, 1900879.	7.8	12
95	Layer-by-layer self-assembly and disassembly of single charged inorganic small molecules: towards surface patterning. Physical Chemistry Chemical Physics, 2013, 15, 15172.	1.3	11
96	Investigating Zigzag Film Growth Behaviors in Layer-by-Layer Self-Assembly of Small Molecules through a High-Gravity Technique. ACS Applied Materials & Interfaces, 2015, 7, 18824-18831.	4.0	11
97	Elasticityâ€Dependent Fast Underwater Adhesion Demonstrated by Macroscopic Supramolecular Assembly. Angewandte Chemie, 2018, 130, 9101-9105.	1.6	11
98	Rapid multilayer construction on a non-planar substrate by layer-by-layer self-assembly under high gravity. RSC Advances, 2014, 4, 59528-59534.	1.7	10
99	Controlled Interfacial Permeation, Nanostructure Formation, Catalytic Efficiency, Signal Enhancement Capability, and Cell Spreading by Adjusting Photochemical Cross-Linking Degrees of Layer-by-Layer Films. ACS Applied Materials & Interfaces, 2016, 8, 34080-34088.	4.0	10
100	A novel alginate-encapsulated system to study biological response to critical-sized wear particles of UHMWPE loaded with alendronate sodium. Materials Science and Engineering C, 2017, 79, 679-686.	3.8	10
101	Using a biocompatible diazidecrosslinker to fabricate a robust polyelectrolyte multilayer film with enhanced effects on cell proliferation. Journal of Materials Chemistry B, 2017, 5, 375-381.	2.9	10
102	Influence of the Surface Chemistry and Dynamics on an Elasticity-Dependent Macroscopic Supramolecular Assembly. ACS Applied Nano Materials, 2018, 1, 5662-5672.	2.4	10
103	A Photowelding Strategy for Conductivity Restoration in Flexible Circuits. Angewandte Chemie - International Edition, 2020, 59, 1098-1102.	7.2	10
104	Toward Understanding Whether Interactive Surface Area Could Direct Ordered Macroscopic Supramolecular Self-Assembly. Langmuir, 2016, 32, 3617-3622.	1.6	9
105	Superhydrophobic coating modified nozzles for energy-saving rapid micro-mixing. Chemical Engineering Journal, 2021, 419, 129766.	6.6	9
106	Macroscopic supramolecular assembly of rigid hydrogels assisted by a flexible spacing coating. Journal of Materials Chemistry B, 2019, 7, 1684-1689.	2.9	8
107	Enhanced Wet-Chemical Etching To Prepare Patterned Silicon Mask with Controlled Depths by Combining Photolithography with Galvanic Reaction. Industrial & Engineering Chemistry Research, 2012, 51, 788-794.	1.8	7
108	Study on critical-sized ultra-high molecular weight polyethylene wear particles loaded with alendronate sodium: in vitro release and cell response. Journal of Materials Science: Materials in Medicine, 2017, 28, 56.	1.7	7

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109	Miniâ€Generator Based on Reciprocating Vertical Motions Driven by Intracorporeal Energy. Advanced Healthcare Materials, 2019, 8, e1900060.	3.9	7
110	Stimuli responsiveness, propulsion and application of the stimuli-responsive polymer based micromotor. Applied Materials Today, 2021, 25, 101250.	2.3	7
111	Self-propelling mini-motor and its applications in supramolecular self-assembly and energy conversion. Scientia Sinica Chimica, 2017, 47, 40-61.	0.2	6
112	Rapid self-healing capability as a metric for flexible spacing coating toward macroscopic supramolecular assembly of rigid building blocks. Cell Reports Physical Science, 2022, 3, 100843.	2.8	5
113	Introducing a high gravity field to enhance infiltration of small molecules into polyelectrolyte multilayers. Soft Matter, 2015, 11, 5748-5753.	1.2	4
114	Macroscopic supramolecular assembly to fabricate multiplexed DNA patterns for potential application in DNA chips. Nanoscale, 2017, 9, 17220-17223.	2.8	4
115	Constructing a Multiplexed DNA Pattern by Combining Precise Magnetic Manipulation and DNA-Driven Assembly. Langmuir, 2018, 34, 1100-1108.	1.6	3
116	Macroscopic supramolecular assembly through adjusting the surface-flexibility of the building block. Chinese Science Bulletin, 2018, 63, 3650-3657.	0.4	3
117	A Photowelding Strategy for Conductivity Restoration in Flexible Circuits. Angewandte Chemie, 2020, 132, 1114-1118.	1.6	2
118	Macroscopic supramolecular assembly: new concept for the fabrication of supramolecular materials. Scientia Sinica Chimica, 2017, 47, 816-829.	0.2	1
119	Polymer Materials Research at CMSE. Macromolecular Rapid Communications, 2018, 39, 1800683.	2.0	0
120	Frontispiece: Precise Macroscopic Supramolecular Assemblies: Strategies and Applications. Chemistry - A European Journal, 2020, 26, .	1.7	0