

Xi Yao

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1909968/publications.pdf>

Version: 2024-02-01

93
papers

11,066
citations

53939

47
h-index

46524

93
g-index

97
all docs

97
docs citations

97
times ranked

12534
citing authors

#	ARTICLE	IF	CITATIONS
1	Bioinspired Surfaces with Superwettability: New Insight on Theory, Design, and Applications. <i>Chemical Reviews</i> , 2015, 115, 8230-8293.	23.0	1,292
2	Applications of Bio-Inspired Special Wettable Surfaces. <i>Advanced Materials</i> , 2011, 23, 719-734.	11.1	961
3	Recent developments in bio-inspired special wettability. <i>Chemical Society Reviews</i> , 2010, 39, 3240.	18.7	922
4	The Dry-Style Antifogging Properties of Mosquito Compound Eyes and Artificial Analogues Prepared by Soft Lithography. <i>Advanced Materials</i> , 2007, 19, 2213-2217.	11.1	884
5	Adaptive fluid-infused porous films with tunable transparency and wettability. <i>Nature Materials</i> , 2013, 12, 529-534.	13.3	481
6	Bioinspired Conical Copper Wire with Gradient Wettability for Continuous and Efficient Fog Collection. <i>Advanced Materials</i> , 2013, 25, 5937-5942.	11.1	289
7	Curvature-Driven Reversible In Situ Switching Between Pinned and Roll-Down Superhydrophobic States for Water Droplet Transportation. <i>Advanced Materials</i> , 2011, 23, 545-549.	11.1	268
8	Stretchable materials of high toughness and low hysteresis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 5967-5972.	3.3	253
9	Three-dimensional capillary ratchet-induced liquid directional steering. <i>Science</i> , 2021, 373, 1344-1348.	6.0	223
10	Janus effect of antifreeze proteins on ice nucleation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 14739-14744.	3.3	205
11	Self-removal of condensed water on the legs of water striders. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 9247-9252.	3.3	194
12	Underwater Oil Capture by a Three-Dimensional Network Architected Organosilane Surface. <i>Advanced Materials</i> , 2011, 23, 2861-2864.	11.1	192
13	Bioinspired Ribbed Nanoneedles with Robust Superhydrophobicity. <i>Advanced Functional Materials</i> , 2010, 20, 656-662.	7.8	182
14	A Mechanically Robust Conducting Polymer Network Electrode for Efficient Flexible Perovskite Solar Cells. <i>Joule</i> , 2019, 3, 2205-2218.	11.7	175
15	Fabrication of Transparent Multilayer Circuits by Inkjet Printing. <i>Advanced Materials</i> , 2016, 28, 1420-1426.	11.1	172
16	Superoleophobic Surfaces with Controllable Oil Adhesion and Their Application in Oil Transportation. <i>Advanced Functional Materials</i> , 2011, 21, 4270-4276.	7.8	171
17	Temperature-Driven Switching of Water Adhesion on Organogel Surface. <i>Advanced Materials</i> , 2014, 26, 1895-1900.	11.1	165
18	Vertically aligned reduced graphene oxide/Ti ₃ C ₂ T _x MXene hybrid hydrogel for highly efficient solar steam generation. <i>Nano Research</i> , 2020, 13, 3048-3056.	5.8	163

#	ARTICLE	IF	CITATIONS
19	Fluorogel Elastomers with Tunable Transparency, Elasticity, Shape-Memory, and Antifouling Properties. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 4418-4422.	7.2	161
20	Hydrogel Paint. <i>Advanced Materials</i> , 2019, 31, e1903062.	11.1	146
21	Cactus Stem Inspired Cone-Arrayed Surfaces for Efficient Fog Collection. <i>Advanced Functional Materials</i> , 2014, 24, 6933-6938.	7.8	142
22	Highly Brilliant Noniridescent Structural Colors Enabled by Graphene Nanosheets Containing Graphene Quantum Dots. <i>Advanced Functional Materials</i> , 2018, 28, 1802585.	7.8	137
23	Supramolecular silicone coating capable of strong substrate bonding, readily damage healing, and easy oil sliding. <i>Science Advances</i> , 2019, 5, eaaw5643.	4.7	132
24	Self-Healable Organogel Nanocomposite with Angle-Independent Structural Colors. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 10462-10466.	7.2	131
25	Development of "Liquid-like" Copolymer Nanocoatings for Reactive Oil-Repellent Surface. <i>ACS Nano</i> , 2017, 11, 2248-2256.	7.3	130
26	Multiphase-Assembly of Siloxane Oligomers with Improved Mechanical Strength and Water-Enhanced Healing. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 11242-11246.	7.2	129
27	Large-Scale Fabrication of Bioinspired Fibers for Directional Water Collection. <i>Small</i> , 2011, 7, 3429-3433.	5.2	119
28	Directional pumping of water and oil microdroplets on slippery surface. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 2482-2487.	3.3	119
29	Wearable and Washable Conductors for Active Textiles. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 25542-25552.	4.0	118
30	Organogel as durable anti-icing coatings. <i>Science China Materials</i> , 2015, 58, 559-565.	3.5	116
31	Effects of Rugged Nanoprotrusions on the Surface Hydrophobicity and Water Adhesion of Anisotropic Micropatterns. <i>Langmuir</i> , 2007, 23, 4886-4891.	1.6	113
32	Bioinspired Solid Organogel Materials with a Regenerable Sacrificial Alkane Surface Layer. <i>Advanced Materials</i> , 2017, 29, 1700865.	11.1	109
33	Peptide-Decorated Gold Nanoparticles as Functional Nano-Capping Agent of Mesoporous Silica Container for Targeting Drug Delivery. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 11204-11209.	4.0	91
34	A highly stretchable and robust non-fluorinated superhydrophobic surface. <i>Journal of Materials Chemistry A</i> , 2017, 5, 16273-16280.	5.2	89
35	Sprayable superhydrophobic coating with high processibility and rapid damage-healing nature. <i>Chemical Engineering Journal</i> , 2020, 392, 124834.	6.6	89
36	Interfacial Engineering of Bimetallic Ag/Pt Nanoparticles on Reduced Graphene Oxide Matrix for Enhanced Antimicrobial Activity. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 8834-8840.	4.0	81

#	ARTICLE	IF	CITATIONS
37	Self-Replenishable Anti-Waxing Organogel Materials. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 8975-8979.	7.2	71
38	Antiadhesion Organogel Materials: From Liquid to Solid. <i>Advanced Materials</i> , 2017, 29, 1703032.	11.1	70
39	Bioinspired Quasi-3D Multiplexed Anti-Counterfeit Imaging via Self-Assembled and Nanoimprinted Photonic Architectures. <i>Advanced Materials</i> , 2022, 34, e2107243.	11.1	70
40	Dynamic siloxane materials: From molecular engineering to emerging applications. <i>Chemical Engineering Journal</i> , 2021, 405, 127023.	6.6	69
41	Fabrication and Characterization of Superhydrophobic Surfaces with Dynamic Stability. <i>Advanced Functional Materials</i> , 2010, 20, 3343-3349.	7.8	68
42	Water Strider-Legs with a Self-Assembled Coating of Single-Crystalline Nanowires of an Organic Semiconductor. <i>Advanced Materials</i> , 2010, 22, 376-379.	11.1	65
43	Emerging Applications of Bioinspired Slippery Surfaces in Biomedical Fields. <i>Chemistry - A European Journal</i> , 2018, 24, 14864-14877.	1.7	63
44	Ionotronic Luminescent Fibers, Fabrics, and Other Configurations. <i>Advanced Materials</i> , 2020, 32, e2005545.	11.1	63
45	Instant, Tough, Noncovalent Adhesion. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 40749-40757.	4.0	60
46	Role of Redox Reaction and Electrostatics in Transition-Metal Impurity-Promoted Photoluminescence Evolution of Water-Soluble ZnSe Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2009, 113, 7503-7510.	1.5	56
47	Wetting ridge assisted programmed magnetic actuation of droplets on ferrofluid-infused surface. <i>Nature Communications</i> , 2021, 12, 7136.	5.8	51
48	Improved air stability of perovskite hybrid solar cells via blending poly(dimethylsiloxane)-urea copolymers. <i>Journal of Materials Chemistry A</i> , 2017, 5, 5486-5494.	5.2	49
49	Development of multifunctional liquid-infused materials by printing assisted functionalization on porous nanocomposites. <i>Journal of Materials Chemistry A</i> , 2018, 6, 4199-4208.	5.2	47
50	Transparent and Gas-Permeable Liquid Marbles for Culturing and Drug Sensitivity Test of Tumor Spheroids. <i>Advanced Healthcare Materials</i> , 2017, 6, 1700185.	3.9	46
51	Adhesion of Microdroplets on Water-Repellent Surfaces toward the Prevention of Surface Fouling and Pathogen Spreading by Respiratory Droplets. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 6599-6608.	4.0	45
52	Dual-Cross-Linked Supramolecular Polysiloxanes for Mechanically Tunable, Damage-Healable and Oil-Repellent Polymeric Coatings. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 47382-47389.	4.0	44
53	Bio-Inspired Elastic Liquid-Infused Material for On-Demand Underwater Manipulation of Air Bubbles. <i>ACS Nano</i> , 2019, 13, 10596-10602.	7.3	37
54	Controllable Fabrication of Noniridescent Microshaped Photonic Crystal Assemblies by Dynamic Three-Phase Contact Line Behaviors on Superhydrophobic Substrates. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 22644-22651.	4.0	35

#	ARTICLE	IF	CITATIONS
55	Covalent tethering of photo-responsive superficial layers on hydrogel surfaces for photo-controlled release. <i>Chemical Science</i> , 2017, 8, 2010-2016.	3.7	35
56	Condensation frosting and passive anti-frosting. <i>Cell Reports Physical Science</i> , 2021, 2, 100474.	2.8	35
57	Mucus-Inspired Supramolecular Adhesives with Oil-Regulated Molecular Configurations and Long-Lasting Antibacterial Properties. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 16877-16886.	4.0	34
58	Multiphase-Assembly of Siloxane Oligomers with Improved Mechanical Strength and Water-Enhanced Healing. <i>Angewandte Chemie</i> , 2018, 130, 11412-11416.	1.6	33
59	Stretchable Electrets: Nanoparticle-Elastomer Composites. <i>Nano Letters</i> , 2020, 20, 4580-4587.	4.5	31
60	Running droplet of interfacial chemical reaction flow. <i>Soft Matter</i> , 2012, 8, 5988.	1.2	29
61	Cascade-Microphase-Separation-Induced Hierarchical Photonic Structures in Supramolecular Organogel for Deformation-Insensitive Structural Colors. <i>Advanced Optical Materials</i> , 2019, 7, 1801749.	3.6	27
62	Inkjet Printed Physically-Unclonable Structural-Color Anticounterfeiting Labels with Convenient Artificial Intelligence Authentication. <i>Advanced Materials Interfaces</i> , 2021, 8, 2101281.	1.9	27
63	Continuous Energy Harvesting from Ubiquitous Humidity Gradients using Liquid-Infused Nanofluidics. <i>Advanced Materials</i> , 2022, 34, e2106410.	11.1	27
64	Lyophilic Nonwetable Surface Based on an Oil/Water/Air/Solid Four-Phase System. <i>Small</i> , 2013, 9, 2515-2519.	5.2	26
65	Self-Healable Organogel Nanocomposite with Angle-Independent Structural Colors. <i>Angewandte Chemie</i> , 2017, 129, 10598-10602.	1.6	26
66	Direct Insight into the Three-Dimensional Internal Morphology of Solid-Liquid-Vapor Interfaces at Microscale. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 4792-4795.	7.2	25
67	A fluorescent molecular rotor probe for tracking plasma membranes and exosomes in living cells. <i>Chemical Communications</i> , 2020, 56, 8480-8483.	2.2	25
68	Condensation-assisted micro-patterning of low-surface-tension liquids on reactive oil-repellent surfaces. <i>Journal of Materials Chemistry A</i> , 2017, 5, 16344-16351.	5.2	22
69	Up-to-date vaccine delivery systems: robust immunity elicited by multifarious nanomaterials upon administration through diverse routes. <i>Biomaterials Science</i> , 2019, 7, 822-835.	2.6	22
70	Defect-enhanced selective ion transport in an ionic nanocomposite for efficient energy harvesting from moisture. <i>Energy and Environmental Science</i> , 2022, 15, 2601-2609.	15.6	22
71	Coordination-Driven Assembly of Metal-Organic Framework Coating for Catalytically Active Superhydrophobic Surface. <i>Advanced Materials Interfaces</i> , 2021, 8, 2001202.	1.9	21
72	Cationic Ligand Protection: A Novel Strategy for One-Pot Preparation of Narrow-Dispersed Aqueous CdS Spheres. <i>Langmuir</i> , 2009, 25, 10237-10242.	1.6	19

#	ARTICLE	IF	CITATIONS
73	lncRNA CRNDE regulates the proliferation and migration of vascular smooth muscle cells. <i>Journal of Cellular Physiology</i> , 2019, 234, 16205-16214.	2.0	19
74	Bioinspired Supramolecular Slippery Organogels for Controlling Pathogen Spread by Respiratory Droplets. <i>Advanced Functional Materials</i> , 2021, 31, 2102888.	7.8	19
75	Ultrastretchable conductive liquid metal composites enabled by adaptive interfacial polarization. <i>Materials Horizons</i> , 2021, 8, 3399-3408.	6.4	17
76	Particulate-Aggregated Adhesives with Exudate-Sensitive Properties and Sustained Bacteria Disinfection to Facilitate Wound Healing. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 31090-31098.	4.0	16
77	Liquid Metal Nanoparticles as a Highly Efficient Photoinitiator to Develop Multifunctional Hydrogel Composites. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 29315-29323.	4.0	16
78	Bioinspired Robust All-Aqueous Droplet via Diffusion-Controlled Interfacial Coacervation. <i>Advanced Functional Materials</i> , 2020, 30, 2004166.	7.8	15
79	Direction-dependent adhesion of water strider's legs for water-walking. <i>Solid State Sciences</i> , 2012, 14, 1146-1151.	1.5	14
80	Manipulation of semiconductor nanocrystal growth in polymer soft solids. <i>Soft Matter</i> , 2009, 5, 4113.	1.2	13
81	Attenuating innate immunity and facilitating \hat{I}^2 -coronavirus infection by NSP1 of SARS-CoV-2 through specific redistributing hnRNP A2/B1 cellular localization. <i>Signal Transduction and Targeted Therapy</i> , 2021, 6, 371.	7.1	13
82	Aggregate Engineering in Supramolecular Polymers via Extensive Non-covalent Networks. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2021, 39, 1310-1318.	2.0	12
83	Capillary force restoration of droplet on superhydrophobic ribbed nano-needles arrays. <i>Soft Matter</i> , 2010, 6, 2470.	1.2	9
84	Topological prime. <i>Science China Technological Sciences</i> , 2020, 63, 1314-1322.	2.0	9
85	Mechano-Induced Assembly of a Nanocomposite for "Press-N-Go" Coatings with Highly Efficient Surface Disinfection. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 19332-19341.	4.0	6
86	Hydrogels: Hydrogel Paint (<i>Adv. Mater.</i> 39/2019). <i>Advanced Materials</i> , 2019, 31, 1970276.	11.1	4
87	Stable Liquid Jets Bouncing off Soft Gels. <i>Physical Review Letters</i> , 2018, 120, 028006.	2.9	3
88	Magnetothermal Miniature Reactors Based on Fe_3O_4 Nanocube-Coated Liquid Marbles. <i>Advanced Healthcare Materials</i> , 2021, 10, e2001658.	3.9	3
89	Bioinspired Fibers: Large-Scale Fabrication of Bioinspired Fibers for Directional Water Collection (<i>Small</i> 24/2011). <i>Small</i> , 2011, 7, 3428-3428.	5.2	2
90	A combined strategy of room-temperature plasma activation and chemical treatment to toughen the interfacial adhesion of fluoropolymers. <i>Chemical Engineering Journal</i> , 2022, 435, 135006.	6.6	2

#	ARTICLE	IF	CITATIONS
91	Organogels: Temperature-Driven Switching of Water Adhesion on Organogel Surface (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT ₀ /Overlock 11.1		
92	Liquid Marbles: Transparent and Gas-Permeable Liquid Marbles for Culturing and Drug Sensitivity Test of Tumor Spheroids (Adv. Healthcare Mater. 13/2017). Advanced Healthcare Materials, 2017, 6, .	3.9	0
93	Frontispiece: Emerging Applications of Bioinspired Slippery Surfaces in Biomedical Fields. Chemistry - A European Journal, 2018, 24, .	1.7	0