Xu Deng

List of Publications by Year
in descending order

77 papers	8,006 citations	126858 33 h-index	66879 78 g-index
80 all docs	80 docs citations	80 times ranked	6895 citing authors

#	Article	IF	Citations
1	Candle Soot as a Template for a Transparent Robust Superamphiphobic Coating. Science, 2012, 335, 67-70.	6.0	1,783
2	Design of robust superhydrophobic surfaces. Nature, 2020, 582, 55-59.	13.7	1,124
3	A droplet-based electricity generator with high instantaneous power density. Nature, 2020, 578, 392-396.	13.7	871
4	Transparent, Thermally Stable and Mechanically Robust Superhydrophobic Surfaces Made from Porous Silica Capsules. Advanced Materials, 2011, 23, 2962-2965.	11.1	441
5	Surface charge printing for programmed droplet transport. Nature Materials, 2019, 18, 936-941.	13.3	401
6	How superhydrophobicity breaks down. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3254-3258.	3.3	397
7	Robust superhydrophobicity: mechanisms and strategies. Chemical Society Reviews, 2021, 50, 4031-4061.	18.7	334
8	Super-robust superhydrophobic concrete. Journal of Materials Chemistry A, 2017, 5, 14542-14550.	5.2	170
9	Harvesting Electricity from Water Evaporation through Microchannels of Natural Wood. ACS Applied Materials & Interfaces, 2020, 12, 11232-11239.	4.0	153
10	Earthwormâ€Inspired Rough Polymer Coatings with Selfâ€Replenishing Lubrication for Adaptive Frictionâ€Reduction and Antifouling Surfaces. Advanced Materials, 2018, 30, e1802141.	11.1	133
11	Large-Area Fabrication of Droplet Pancake Bouncing Surface and Control of Bouncing State. ACS Nano, 2017, 11, 9259-9267.	7.3	118
12	Highâ€Performance pHâ€Switchable Supramolecular Thermosets via Cationâ€“Ï€ Interactions. Advanced Materials, 2018, 30, 1704234.	11.1	105
13	Liquid Drops Impacting Superamphiphobic Coatings. Langmuir, 2013, 29, 7847-7856.	1.6	103
14	Super liquid-repellent gas membranes for carbon dioxide capture and heartâ€“lung machines. Nature Communications, 2013, 4, 2512.	5.8	98
15	Superhydrophobic surfaces by hybrid raspberry-like particles. Faraday Discussions, 2010, 146, 35.	1.6	91
16	High-efficiency bubble transportation in an aqueous environment on a serial wedge-shaped wettability pattern. Journal of Materials Chemistry A, 2019, 7, 13567-13576.	5.2	90
17	A superhydrophilic cement-coated mesh: an acid, alkali, and organic reagent-free material for oil/water separation. Nanoscale, 2018, 10, 1920-1929.	2.8	81
18	Wetting on the Microscale: Shape of a Liquid Drop on a Microstructured Surface at Different Length Scales. Langmuir, 2012, 28, 8392-8398.	1.6	74

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19	Impact of Viscous Droplets on Superamphiphobic Surfaces. Langmuir, 2017, 33, 144-151.	1.6	67
20	Spontaneous charging affects the motion of sliding drops. Nature Physics, 2022, 18, 713-719.	6.5	62
21	Reconfiguring surface functions using visible-light-controlled metal-ligand coordination. Nature Communications, 2018, 9, 3842.	5.8	59
22	Anisotropic sliding on dual-rail hydrophilic tracks. Lab on A Chip, 2017, 17, 1041-1050.	3.1	56
23	Effect of Nanoroughness on Highly Hydrophobic and Superhydrophobic Coatings. Langmuir, 2012, 28, 15005-15014.	1.6	50
24	Designing Transparent Micro/Nano Re-Entrant-Coordinated Superamphiphobic Surfaces with Ultralow Solid/Liquid Adhesion. ACS Applied Materials & Interfaces, 2019, 11, 29458-29465.	4.0	49
25	<i>Salvinia</i>-like slippery surface with stable and mobile water/air contact line. National Science Review, 2021, 8, nwaa153.	4.6	47
26	Breath figure lithography for the construction of a hierarchical structure in sponges and their applications to oil/water separation. Journal of Materials Chemistry A, 2017, 5, 16369-16375.	5.2	42
27	Electrochemical sensor for determination of ractopamine based on aptamer/octadecanethiol Janus particles. Sensors and Actuators B: Chemical, 2018, 276, 204-210.	4.0	39
28	Biomaterial surface modification for underwater adhesion. Smart Materials in Medicine, 2020, 1, 77-91.	3.7	39
29	Solventâ€Free Synthesis of Microparticles on Superamphiphobic Surfaces. Angewandte Chemie - International Edition, 2013, 52, 11286-11289.	7.2	38
30	Designing of Rewritable Paper by Hydrochromic Donorâ€"Acceptor Stenhouse Adducts. ACS Nano, 2021, 15, 10384-10392.	7.3	38
31	Dielectric properties of exfoliated graphite reinforced flouroelastomer composites. Journal of Applied Polymer Science, 2009, 111, 1358-1368.	1.3	37
32	The effect of physical treatments of waste rubber powder on the mechanical properties of the revulcanizate. Journal of Applied Polymer Science, 2009, 112, 3048-3056.	1.3	36
33	Prompting Splash Impact on Superamphiphobic Surfaces by Imposing a Viscous Part. Advanced Science, 2020, 7, 1902687.	5.6	34
34	Fly ash reinforced thermoplastic vulcanizates obtained from waste tire powder. Waste Management, 2009, 29, 1058-1066.	3.7	33
35	Controlling the Localization of Liquid Droplets in Polymer Matrices by Evaporative Lithography. Angewandte Chemie - International Edition, 2016, 55, 10681-10685.	7.2	33
36	Omniâ€Liquid Droplet Manipulation Platform. Advanced Materials Interfaces, 2019, 6, 1900653.	1.9	33

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37	Wellâ€Controlled Microcellular Biodegradable PLA/Silk Composite Foams Using Supercritical CO₂. Macromolecular Materials and Engineering, 2009, 294, 620-624.	1.7	32
38	Fabrication of superhydrophobic surface by a laminating exfoliation method. Journal of Materials Chemistry A, 2014, 2, 1268-1271.	5.2	31
39	Oblique droplet impact on superhydrophobic surfaces: Jets and bubbles. Physics of Fluids, 2020, 32, .	1.6	31
40	Bioinspired Nacreâ€Like Alumina with a Metallic Nickel Compliant Phase Fabricated by Sparkâ€Plasma Sintering. Small, 2019, 15, 1900573.	5.2	28
41	Superamphiphobic Particles: How Small Can We Go?. Physical Review Letters, 2014, 112, 016101.	2.9	27
42	Spreading of impinging droplets on nanostructured superhydrophobic surfaces. Applied Physics Letters, 2018, 113, .	1.5	26
43	Macrodropâ€Impactâ€Mediated Fluid Microdispensing. Advanced Science, 2021, 8, e2101331.	5.6	26
44	Bioinspired hydrogel microfibres colour-encoded with colloidal crystals. Materials Horizons, 2019, 6, 1938-1943.	6.4	25
45	Green self-propelling swimmer driven by rain droplets. Nano Energy, 2022, 101, 107543.	8.2	25
46	Dynamic reaction involving surface modified waste ground rubber tire powder/polypropylene. Polymer Engineering and Science, 2009, 49, 168-176.	1.5	24
47	Optimization of superamphiphobic layers based on candle soot. Pure and Applied Chemistry, 2014, 86, 87-96.	0.9	23
48	Dual-responsive supramolecular colloidal microcapsules from cucurbit[8]uril molecular recognition in microfluidic droplets. Polymer Chemistry, 2016, 7, 5996-6002.	1.9	22
49	Mechanically stable superhydrophobic polymer films by a simple hot press lamination and peeling process. RSC Advances, 2016, 6, 12530-12536.	1.7	22
50	Electrokinetics on superhydrophobic surfaces. Journal of Physics Condensed Matter, 2012, 24, 464110.	0.7	21
51	Durable Super-repellent Surfaces: From Solidâ€"Liquid Interaction to Applications. Accounts of Materials Research, 2021, 2, 920-932.	5.9	21
52	Robust, Easyâ€Cleaning Superhydrophobic/Superoleophilic Copper Meshes for Oil/Water Separation under Harsh Conditions. Advanced Materials Interfaces, 2019, 6, 1900158.	1.9	20
53	Liquidâ€Pressureâ€Guided Superhydrophobic Surfaces with Adaptive Adhesion and Stability. Advanced Materials, 2022, 34, .	11.1	20
54	Fabrication of Long-Term Underwater Superoleophobic Al Surfaces and Application on Underwater Lossless Manipulation of Non-Polar Organic Liquids. Scientific Reports, 2016, 6, 31818.	1.6	18

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55	Evaporation and particle deposition of bi-component colloidal droplets on a superhydrophobic surface. International Journal of Heat and Mass Transfer, 2020, 159, 120063.	2.5	18
56	Charge Density Gradient Propelled Ultrafast Sweeping Removal of Dropwise Condensates. Journal of Physical Chemistry B, 2021, 125, 1936-1943.	1.2	18
57	Fast photochromism in solid: Microenvironment in metal-organic frameworks promotes the isomerization of donor-acceptor Stenhouse adducts. Chemical Engineering Journal, 2022, 427, 132037.	6.6	14
58	Floating on Oil. Langmuir, 2014, 30, 10637-10642.	1.6	13
59	Multistimuli Responsive Liquidâ€Release in Dynamic Polymer Coatings for Controlling Surface Slipperiness and Optical Performance. Advanced Materials Interfaces, 2019, 6, 1901028.	1.9	13
60	Universal, Surfactantâ€Free Preparation of Hydrogel Beads on Superamphiphobic and Slippery Surfaces. Advanced Materials Interfaces, 2018, 5, 1701536.	1.9	12
61	Surface charges as a versatile platform for emerging applications. Science Bulletin, 2020, 65, 1052-1054.	4.3	12
62	Surface-Charge-Assisted Microdroplet Generation on a Superhydrophobic Surface. Langmuir, 2020, 36, 14352-14360.	1.6	11
63	Effects of formulation and processing parameters on the morphology of extruded polypropyleneâ€(waste ground rubber tire powder) foams. Journal of Vinyl and Additive Technology, 2009, 15, 266-274.	1.8	9
64	Expanded Waste Ground Rubber Tire Powder/Polypropylene Composites: Processing-Structure Relationships. Journal of Composite Materials, 2009, 43, 3003-3015.	1.2	8
65	Is Heat Really Beneficial to Water Evaporation-Driven Electricity?. Journal of Physical Chemistry Letters, 2021, 12, 12370-12375.	2.1	8
66	Surface contacts strongly influence the elasticity and thermal conductivity of silica nanoparticle fibers. Physical Chemistry Chemical Physics, 2021, 23, 3707-3715.	1.3	7
67	Polymeric Microparticles Generated via Confinementâ€Free Fluid Instability. Advanced Materials, 2021, 33, e2007154.	11.1	7
68	Polymeric Flaky Nanostructures from Cellulose Stearoyl Esters for Functional Surfaces. Advanced Materials Interfaces, 2016, 3, 1600636.	1.9	6
69	An electric-field-dependent drop selector. Lab on A Chip, 2019, 19, 1296-1304.	3.1	6
70	Selfâ€Assembly of Colloidal Nanoparticles into Wellâ€Ordered Centimeterâ€Long Rods via Crack Engineering. Advanced Materials Interfaces, 2021, 8, 2000222.	1.9	6
71	Pinning-induced Variations of the Contact Angle of Drops on Microstructured Surfaces. Chemistry Letters, 2012, 41, 1343-1345.	0.7	5
72	Controlling the Localization of Liquid Droplets in Polymer Matrices by Evaporative Lithography. Angewandte Chemie, 2016, 128, 10839-10843.	1.6	5

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73	Facile Strategy to Generate Charged Droplets with Desired Polarities. ACS Omega, 2020, 5, 26908-26913.	1.6	5
74	Top-down Approach for Fabrication of Polymer Microspheres by Interfacial Engineering. Chinese Journal of Polymer Science (English Edition), 2020, 38, 1286-1293.	2.0	3
75	What Can Probing Liquidâ€"Air Menisci Inside Nanopores Teach Us About Macroscopic Wetting Phenomena?. ACS Applied Materials & Interfaces, 2021, 13, 6897-6905.	4.0	3
76	In situ tunable droplet adhesion on a super-repellent surface via electrostatic induction effect. IScience, 2021, 24, 102208.	1.9	3
77	General mechanism and mitigation for strong adhesion of frozen oil sands on solid substrates. Fuel, 2022, 325, 124797.	3.4	2