

Xu Deng

List of Publications by Year in descending order

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77
papers

8,006
citations

126907

33
h-index

66911

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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. <i>Science</i> , 2012, 335, 67-70.	12.6	1,783
2	Design of robust superhydrophobic surfaces. <i>Nature</i> , 2020, 582, 55-59.	27.8	1,124
3	A droplet-based electricity generator with high instantaneous power density. <i>Nature</i> , 2020, 578, 392-396.	27.8	871
4	Transparent, Thermally Stable and Mechanically Robust Superhydrophobic Surfaces Made from Porous Silica Capsules. <i>Advanced Materials</i> , 2011, 23, 2962-2965.	21.0	441
5	Surface charge printing for programmed droplet transport. <i>Nature Materials</i> , 2019, 18, 936-941.	27.5	401
6	How superhydrophobicity breaks down. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 3254-3258.	7.1	397
7	Robust superhydrophobicity: mechanisms and strategies. <i>Chemical Society Reviews</i> , 2021, 50, 4031-4061.	38.1	334
8	Super-robust superhydrophobic concrete. <i>Journal of Materials Chemistry A</i> , 2017, 5, 14542-14550.	10.3	170
9	Harvesting Electricity from Water Evaporation through Microchannels of Natural Wood. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 11232-11239.	8.0	153
10	Earthworm-Inspired Rough Polymer Coatings with Self-Replenishing Lubrication for Adaptive Friction-Reduction and Antifouling Surfaces. <i>Advanced Materials</i> , 2018, 30, e1802141.	21.0	133
11	Large-Area Fabrication of Droplet Pancake Bouncing Surface and Control of Bouncing State. <i>ACS Nano</i> , 2017, 11, 9259-9267.	14.6	118
12	High-Performance pH-Switchable Supramolecular Thermosets via Cation- π Interactions. <i>Advanced Materials</i> , 2018, 30, 1704234.	21.0	105
13	Liquid Drops Impacting Superamphiphobic Coatings. <i>Langmuir</i> , 2013, 29, 7847-7856.	3.5	103
14	Super liquid-repellent gas membranes for carbon dioxide capture and heart-lung machines. <i>Nature Communications</i> , 2013, 4, 2512.	12.8	98
15	Superhydrophobic surfaces by hybrid raspberry-like particles. <i>Faraday Discussions</i> , 2010, 146, 35.	3.2	91
16	High-efficiency bubble transportation in an aqueous environment on a serial wedge-shaped wettability pattern. <i>Journal of Materials Chemistry A</i> , 2019, 7, 13567-13576.	10.3	90
17	A superhydrophilic cement-coated mesh: an acid, alkali, and organic reagent-free material for oil/water separation. <i>Nanoscale</i> , 2018, 10, 1920-1929.	5.6	81
18	Wetting on the Microscale: Shape of a Liquid Drop on a Microstructured Surface at Different Length Scales. <i>Langmuir</i> , 2012, 28, 8392-8398.	3.5	74

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19	Impact of Viscous Droplets on Superamphiphobic Surfaces. <i>Langmuir</i> , 2017, 33, 144-151.	3.5	67
20	Spontaneous charging affects the motion of sliding drops. <i>Nature Physics</i> , 2022, 18, 713-719.	16.7	62
21	Reconfiguring surface functions using visible-light-controlled metal-ligand coordination. <i>Nature Communications</i> , 2018, 9, 3842.	12.8	59
22	Anisotropic sliding on dual-rail hydrophilic tracks. <i>Lab on A Chip</i> , 2017, 17, 1041-1050.	6.0	56
23	Effect of Nanoroughness on Highly Hydrophobic and Superhydrophobic Coatings. <i>Langmuir</i> , 2012, 28, 15005-15014.	3.5	50
24	Designing Transparent Micro/Nano Re-Entrant-Coordinated Superamphiphobic Surfaces with Ultralow Solid/Liquid Adhesion. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 29458-29465.	8.0	49
25	<i>Salvinia</i> -like slippery surface with stable and mobile water/air contact line. <i>National Science Review</i> , 2021, 8, nwa153.	9.5	47
26	Breath figure lithography for the construction of a hierarchical structure in sponges and their applications to oil/water separation. <i>Journal of Materials Chemistry A</i> , 2017, 5, 16369-16375.	10.3	42
27	Electrochemical sensor for determination of ractopamine based on aptamer/octadecanethiol Janus particles. <i>Sensors and Actuators B: Chemical</i> , 2018, 276, 204-210.	7.8	39
28	Biomaterial surface modification for underwater adhesion. <i>Smart Materials in Medicine</i> , 2020, 1, 77-91.	6.7	39
29	Solvent-free Synthesis of Microparticles on Superamphiphobic Surfaces. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 11286-11289.	13.8	38
30	Designing of Rewritable Paper by Hydrochromic Donor-Acceptor Stenhouse Adducts. <i>ACS Nano</i> , 2021, 15, 10384-10392.	14.6	38
31	Dielectric properties of exfoliated graphite reinforced flouroelastomer composites. <i>Journal of Applied Polymer Science</i> , 2009, 111, 1358-1368.	2.6	37
32	The effect of physical treatments of waste rubber powder on the mechanical properties of the revulcanizate. <i>Journal of Applied Polymer Science</i> , 2009, 112, 3048-3056.	2.6	36
33	Prompting Splash Impact on Superamphiphobic Surfaces by Imposing a Viscous Part. <i>Advanced Science</i> , 2020, 7, 1902687.	11.2	34
34	Fly ash reinforced thermoplastic vulcanizates obtained from waste tire powder. <i>Waste Management</i> , 2009, 29, 1058-1066.	7.4	33
35	Controlling the Localization of Liquid Droplets in Polymer Matrices by Evaporative Lithography. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 10681-10685.	13.8	33
36	Omni-liquid Droplet Manipulation Platform. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900653.	3.7	33

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37	Wellâ€Controlled Microcellular Biodegradable PLA/Silk Composite Foams Using Supercritical CO ₂ . <i>Macromolecular Materials and Engineering</i> , 2009, 294, 620-624.	3.6	32
38	Fabrication of superhydrophobic surface by a laminating exfoliation method. <i>Journal of Materials Chemistry A</i> , 2014, 2, 1268-1271.	10.3	31
39	Oblique droplet impact on superhydrophobic surfaces: Jets and bubbles. <i>Physics of Fluids</i> , 2020, 32, .	4.0	31
40	Bioinspired Nacreâ€Like Alumina with a Metallic Nickel Compliant Phase Fabricated by Sparkâ€Plasma Sintering. <i>Small</i> , 2019, 15, 1900573.	10.0	28
41	Superamphiphobic Particles: How Small Can We Go?. <i>Physical Review Letters</i> , 2014, 112, 016101.	7.8	27
42	Spreading of impinging droplets on nanostructured superhydrophobic surfaces. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	26
43	Macrodropletâ€Impactâ€Mediated Fluid Microdispensing. <i>Advanced Science</i> , 2021, 8, e2101331.	11.2	26
44	Bioinspired hydrogel microfibrils colour-encoded with colloidal crystals. <i>Materials Horizons</i> , 2019, 6, 1938-1943.	12.2	25
45	Green self-propelling swimmer driven by rain droplets. <i>Nano Energy</i> , 2022, 101, 107543.	16.0	25
46	Dynamic reaction involving surface modified waste ground rubber tire powder/polypropylene. <i>Polymer Engineering and Science</i> , 2009, 49, 168-176.	3.1	24
47	Optimization of superamphiphobic layers based on candle soot. <i>Pure and Applied Chemistry</i> , 2014, 86, 87-96.	1.9	23
48	Dual-responsive supramolecular colloidal microcapsules from cucurbit[8]uril molecular recognition in microfluidic droplets. <i>Polymer Chemistry</i> , 2016, 7, 5996-6002.	3.9	22
49	Mechanically stable superhydrophobic polymer films by a simple hot press lamination and peeling process. <i>RSC Advances</i> , 2016, 6, 12530-12536.	3.6	22
50	Electrokinetics on superhydrophobic surfaces. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 464110.	1.8	21
51	Durable Super-repellent Surfaces: From Solidâ€Liquid Interaction to Applications. <i>Accounts of Materials Research</i> , 2021, 2, 920-932.	11.7	21
52	Robust, Easyâ€Cleaning Superhydrophobic/Superoleophilic Copper Meshes for Oil/Water Separation under Harsh Conditions. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900158.	3.7	20
53	Liquidâ€Pressureâ€Guided Superhydrophobic Surfaces with Adaptive Adhesion and Stability. <i>Advanced Materials</i> , 2022, 34, .	21.0	20
54	Fabrication of Long-Term Underwater Superoleophobic Al Surfaces and Application on Underwater Lossless Manipulation of Non-Polar Organic Liquids. <i>Scientific Reports</i> , 2016, 6, 31818.	3.3	18

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55	Evaporation and particle deposition of bi-component colloidal droplets on a superhydrophobic surface. <i>International Journal of Heat and Mass Transfer</i> , 2020, 159, 120063.	4.8	18
56	Charge Density Gradient Propelled Ultrafast Sweeping Removal of Dropwise Condensates. <i>Journal of Physical Chemistry B</i> , 2021, 125, 1936-1943.	2.6	18
57	Fast photochromism in solid: Microenvironment in metal-organic frameworks promotes the isomerization of donor-acceptor Stenhouse adducts. <i>Chemical Engineering Journal</i> , 2022, 427, 132037.	12.7	14
58	Floating on Oil. <i>Langmuir</i> , 2014, 30, 10637-10642.	3.5	13
59	Multistimuli Responsive Liquid-Release in Dynamic Polymer Coatings for Controlling Surface Slipperiness and Optical Performance. <i>Advanced Materials Interfaces</i> , 2019, 6, 1901028.	3.7	13
60	Universal, Surfactant-Free Preparation of Hydrogel Beads on Superamphiphobic and Slippery Surfaces. <i>Advanced Materials Interfaces</i> , 2018, 5, 1701536.	3.7	12
61	Surface charges as a versatile platform for emerging applications. <i>Science Bulletin</i> , 2020, 65, 1052-1054.	9.0	12
62	Surface-Charge-Assisted Microdroplet Generation on a Superhydrophobic Surface. <i>Langmuir</i> , 2020, 36, 14352-14360.	3.5	11
63	Effects of formulation and processing parameters on the morphology of extruded polypropylene-(waste ground rubber tire powder) foams. <i>Journal of Vinyl and Additive Technology</i> , 2009, 15, 266-274.	3.4	9
64	Expanded Waste Ground Rubber Tire Powder/Polypropylene Composites: Processing-Structure Relationships. <i>Journal of Composite Materials</i> , 2009, 43, 3003-3015.	2.4	8
65	Is Heat Really Beneficial to Water Evaporation-Driven Electricity?. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 12370-12375.	4.6	8
66	Surface contacts strongly influence the elasticity and thermal conductivity of silica nanoparticle fibers. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 3707-3715.	2.8	7
67	Polymeric Microparticles Generated via Confinement-Free Fluid Instability. <i>Advanced Materials</i> , 2021, 33, e2007154.	21.0	7
68	Polymeric Flaky Nanostructures from Cellulose Stearoyl Esters for Functional Surfaces. <i>Advanced Materials Interfaces</i> , 2016, 3, 1600636.	3.7	6
69	An electric-field-dependent drop selector. <i>Lab on A Chip</i> , 2019, 19, 1296-1304.	6.0	6
70	Self-Assembly of Colloidal Nanoparticles into Well-Ordered Centimeter-Long Rods via Crack Engineering. <i>Advanced Materials Interfaces</i> , 2021, 8, 2000222.	3.7	6
71	Pinning-induced Variations of the Contact Angle of Drops on Microstructured Surfaces. <i>Chemistry Letters</i> , 2012, 41, 1343-1345.	1.3	5
72	Controlling the Localization of Liquid Droplets in Polymer Matrices by Evaporative Lithography. <i>Angewandte Chemie</i> , 2016, 128, 10839-10843.	2.0	5

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73	Facile Strategy to Generate Charged Droplets with Desired Polarities. ACS Omega, 2020, 5, 26908-26913.	3.5	5
74	Top-down Approach for Fabrication of Polymer Microspheres by Interfacial Engineering. Chinese Journal of Polymer Science (English Edition), 2020, 38, 1286-1293.	3.8	3
75	What Can Probing Liquidâ€™Air Menisci Inside Nanopores Teach Us About Macroscopic Wetting Phenomena?. ACS Applied Materials & Interfaces, 2021, 13, 6897-6905.	8.0	3
76	In situ tunable droplet adhesion on a super-repellent surface via electrostatic induction effect. IScience, 2021, 24, 102208.	4.1	3
77	General mechanism and mitigation for strong adhesion of frozen oil sands on solid substrates. Fuel, 2022, 325, 124797.	6.4	2