Xu Deng

List of Publications by Year in Descending Order

76 papers	5,173 citations	29 h-index	71 g-index
80 ext. papers	6,486 ext. citations	10.8 avg, IF	5.98 L-index

#	Paper	IF	Citations
76	Fast photochromism in solid: Microenvironment in metal-organic frameworks promotes the isomerization of donor-acceptor Stenhouse adducts. *Chemical Engineering Journal*, **2022**, 427, 132037	14.7	4
75	tunable droplet adhesion on a super-repellent surface via electrostatic induction effect. *IScience*, **2021**, 24, 102208	6.1	1
74	Polymeric Microparticles Generated via Confinement-Free Fluid Instability. *Advanced Materials*, **2021**, 33, e2007154	24	2
73	Designing of Rewritable Paper by Hydrochromic Donor-Acceptor Stenhouse Adducts. *ACS Nano*, **2021**, 15, 10384-10392	16.7	18
72	Macrodrop-Impact-Mediated Fluid Microdispensing. *Advanced Science*, **2021**, 8, e2101331	13.6	8
71	-like slippery surface with stable and mobile water/air contact line. *National Science Review*, **2021**, 8, nwaa183	23.3	17
70	Self-Assembly of Colloidal Nanoparticles into Well-Ordered Centimeter-Long Rods via Crack Engineering. *Advanced Materials Interfaces*, **2021**, 8, 2000222	4.6	2
69	Surface contacts strongly influence the elasticity and thermal conductivity of silica nanoparticle fibers. *Physical Chemistry Chemical Physics*, **2021**, 23, 3707-3715	3.6	2
68	Robust superhydrophobicity: mechanisms and strategies. *Chemical Society Reviews*, **2021**, 50, 4031-4061	58.5	86
67	What Can Probing Liquid-Air Menisci Inside Nanopores Teach Us About Macroscopic Wetting Phenomena?. *ACS Applied Materials & Interfaces*, **2021**, 13, 6897-6905	9.5	2
66	Charge Density Gradient Propelled Ultrafast Sweeping Removal of Dropwise Condensates. *Journal of Physical Chemistry B*, **2021**, 125, 1936-1943	3.4	7
65	Is Heat Really Beneficial to Water Evaporation-Driven Electricity?. *Journal of Physical Chemistry Letters*, **2021**, 12, 12370-12375	6.4	0
64	Design of robust superhydrophobic surfaces. *Nature*, **2020**, 582, 55-59	50.4	444
63	Evaporation and particle deposition of bi-component colloidal droplets on a superhydrophobic surface. *International Journal of Heat and Mass Transfer*, **2020**, 159, 120063	4.9	8
62	Harvesting Electricity from Water Evaporation through Microchannels of Natural Wood. *ACS Applied Materials & Interfaces*, **2020**, 12, 11232-11239	9.5	51
61	A droplet-based electricity generator with high instantaneous power density. *Nature*, **2020**, 578, 392-396	50.4	391
60	Oblique droplet impact on superhydrophobic surfaces: Jets and bubbles. *Physics of Fluids*, **2020**, 32, 122112	4.4	10

59	Prompting Splash Impact on Superamphiphobic Surfaces by Imposing a Viscous Part. *Advanced Science*, **2020**, 7, 1902687	13.6	20
58	Facile Strategy to Generate Charged Droplets with Desired Polarities. *ACS Omega*, **2020**, 5, 26908-26913	3.9	5
57	Surface-Charge-Assisted Microdroplet Generation on a Superhydrophobic Surface. *Langmuir*, **2020**, 36, 14352-14360	4	2
56	Top-down Approach for Fabrication of Polymer Microspheres by Interfacial Engineering. *Chinese Journal of Polymer Science (English Edition)*, **2020**, 38, 1286-1293	3.5	2
55	Biomaterial surface modification for underwater adhesion. *Smart Materials in Medicine*, **2020**, 1, 77-91	12.9	26
54	Surface charges as a versatile platform for emerging applications. *Science Bulletin*, **2020**, 65, 1052-1054	10.6	9
53	Bioinspired Nacre-Like Alumina with a Metallic Nickel Compliant Phase Fabricated by Spark-Plasma Sintering. *Small*, **2019**, 15, e1900573	11	11
52	Bioinspired hydrogel microfibres colour-encoded with colloidal crystals. *Materials Horizons*, **2019**, 6, 1938-1943	14.4	13
51	High-efficiency bubble transportation in an aqueous environment on a serial wedge-shaped wettability pattern. *Journal of Materials Chemistry A*, **2019**, 7, 13567-13576	13	74
50	Robust, Easy-Cleaning Superhydrophobic/Superoleophilic Copper Meshes for Oil/Water Separation under Harsh Conditions. *Advanced Materials Interfaces*, **2019**, 6, 1900158	4.6	12
49	An electric-field-dependent drop selector. *Lab on A Chip*, **2019**, 19, 1296-1304	7.2	5
48	Designing Transparent Micro/Nano Re-Entrant-Coordinated Superamphiphobic Surfaces with Ultralow Solid/Liquid Adhesion. *ACS Applied Materials & Interfaces*, **2019**, 11, 29458-29465	9.5	32
47	Surface charge printing for programmed droplet transport. *Nature Materials*, **2019**, 18, 936-941	27	208
46	Omni-Liquid Droplet Manipulation Platform. *Advanced Materials Interfaces*, **2019**, 6, 1900653	4.6	16
45	Multistimuli Responsive Liquid-Release in Dynamic Polymer Coatings for Controlling Surface Slipperiness and Optical Performance. *Advanced Materials Interfaces*, **2019**, 6, 1901028	4.6	12
44	Universal, Surfactant-Free Preparation of Hydrogel Beads on Superamphiphobic and Slippery Surfaces. *Advanced Materials Interfaces*, **2018**, 5, 1701536	4.6	10
43	A superhydrophilic cement-coated mesh: an acid, alkali, and organic reagent-free material for oil/water separation. *Nanoscale*, **2018**, 10, 1920-1929	7.7	63
42	High-Performance pH-Switchable Supramolecular Thermosets via Cation-□Interactions. *Advanced Materials*, **2018**, 30, 1704234	24	79

41	Electrochemical sensor for determination of ractopamine based on aptamer/octadecanethiol Janus particles. *Sensors and Actuators B: Chemical*, **2018**, 276, 204-210	8.5	27
40	Spreading of impinging droplets on nanostructured superhydrophobic surfaces. *Applied Physics Letters*, **2018**, 113, 071602	3.4	18
39	Earthworm-Inspired Rough Polymer Coatings with Self-Replenishing Lubrication for Adaptive Friction-Reduction and Antifouling Surfaces. *Advanced Materials*, **2018**, 30, e1802141	24	79
38	Reconfiguring surface functions using visible-light-controlled metal-ligand coordination. *Nature Communications*, **2018**, 9, 3842	17.4	40
37	Anisotropic sliding on dual-rail hydrophilic tracks. *Lab on A Chip*, **2017**, 17, 1041-1050	7.2	42
36	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	13	38
35	Impact of Viscous Droplets on Superamphiphobic Surfaces. *Langmuir*, **2017**, 33, 144-151	4	46
34	Large-Area Fabrication of Droplet Pancake Bouncing Surface and Control of Bouncing State. *ACS Nano*, **2017**, 11, 9259-9267	16.7	85
33	Super-robust superhydrophobic concrete. *Journal of Materials Chemistry A*, **2017**, 5, 14542-14550	13	109
32	Controlling the Localization of Liquid Droplets in Polymer Matrices by Evaporative Lithography. *Angewandte Chemie - International Edition*, **2016**, 55, 10681-5	16.4	29
31	Polymeric Flaky Nanostructures from Cellulose Stearoyl Esters for Functional Surfaces. *Advanced Materials Interfaces*, **2016**, 3, 1600636	4.6	6
30	Fabrication of Long-Term Underwater Superoleophobic Al Surfaces and Application on Underwater Lossless Manipulation of Non-Polar Organic Liquids. *Scientific Reports*, **2016**, 6, 31818	4.9	18
29	Mechanically stable superhydrophobic polymer films by a simple hot press lamination and peeling process. *RSC Advances*, **2016**, 6, 12530-12536	3.7	18
28	Dual-responsive supramolecular colloidal microcapsules from cucurbit[8]uril molecular recognition in microfluidic droplets. *Polymer Chemistry*, **2016**, 7, 5996-6002	4.9	16
27	Controlling the Localization of Liquid Droplets in Polymer Matrices by Evaporative Lithography. *Angewandte Chemie*, **2016**, 128, 10839-10843	3.6	3
26	Superamphiphobic particles: how small can we go?. *Physical Review Letters*, **2014**, 112, 016101	7.4	23
25	Optimization of superamphiphobic layers based on candle soot. *Pure and Applied Chemistry*, **2014**, 86, 87-96	2.1	21
24	Fabrication of superhydrophobic surface by a laminating exfoliation method. *Journal of Materials Chemistry A*, **2014**, 2, 1268-1271	13	26

23	Floating on oil. *Langmuir*, **2014**, 30, 10637-42	4	12
22	Super liquid-repellent gas membranes for carbon dioxide capture and heart-lung machines. *Nature Communications*, **2013**, 4, 2512	17.4	88
21	Liquid drops impacting superamphiphobic coatings. *Langmuir*, **2013**, 29, 7847-56	4	89
20	How superhydrophobicity breaks down. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 3254-8	11.5	322
19	Solvent-free synthesis of microparticles on superamphiphobic surfaces. *Angewandte Chemie - International Edition*, **2013**, 52, 11286-9	16.4	35
18	Solvent-Free Synthesis of Microparticles on Superamphiphobic Surfaces. *Angewandte Chemie*, **2013**, 125, 11496-11499	3.6	7
17	Pinning-induced Variations of the Contact Angle of Drops on Microstructured Surfaces. *Chemistry Letters*, **2012**, 41, 1343-1345	1.7	5
16	Electrokinetics on superhydrophobic surfaces. *Journal of Physics Condensed Matter*, **2012**, 24, 464110	1.8	19
15	Candle soot as a template for a transparent robust superamphiphobic coating. *Science*, **2012**, 335, 67-70	33.3	1507
14	Effect of nanoroughness on highly hydrophobic and superhydrophobic coatings. *Langmuir*, **2012**, 28, 15005-14	4	46
13	Wetting on the microscale: shape of a liquid drop on a microstructured surface at different length scales. *Langmuir*, **2012**, 28, 8392-8	4	63
12	Transparent, thermally stable and mechanically robust superhydrophobic surfaces made from porous silica capsules. *Advanced Materials*, **2011**, 23, 2962-5	24	410
11	Superhydrophobic surfaces by hybrid raspberry-like particles. *Faraday Discussions*, **2010**, 146, 35-48; discussion 79-101, 395-401	3.6	87
10	Effects of formulation and processing parameters on the morphology of extruded polypropylene-(waste ground rubber tire powder) foams. *Journal of Vinyl and Additive Technology*, **2009**, 15, 266-274	2	8
9	Expanded Waste Ground Rubber Tire Powder/Polypropylene Composites: Processing-Structure Relationships. *Journal of Composite Materials*, **2009**, 43, 3003-3015	2.7	6
8	Well-Controlled Microcellular Biodegradable PLA/Silk Composite Foams Using Supercritical CO2. *Macromolecular Materials and Engineering*, **2009**, 294, 620-624	3.9	29
7	Dielectric properties of exfoliated graphite reinforced flouroelastomer composites. *Journal of Applied Polymer Science*, **2009**, 111, 1358-1368	2.9	33
6	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	2.9	30

5	Dynamic reaction involving surface modified waste ground rubber tire powder/polypropylene. *Polymer Engineering and Science*, **2009**, 49, 168-176	2.3	22
4	Fly ash reinforced thermoplastic vulcanizates obtained from waste tire powder. *Waste Management* , **2009**, 29, 1058-66	8.6	32
3	Durable Super-repellent Surfaces: From Solid–Liquid Interaction to Applications. *Accounts of Materials Research*,	7.5	8
2	Spontaneous charging affects the motion of sliding drops. *Nature Physics*,	16.2	12
1	Liquid-pressure-guided superhydrophobic surfaces with adaptive adhesion and stability. *Advanced Materials*,2202167	24	1