Yao Lu

List of Publications by Year
in descending order

102 papers	7,442 citations	53794 45 h-index	54911 84 g-index
103 all docs	103 docs citations	103 times ranked	7235 citing authors

#	ARTICLE	IF	CITATIONS
1	Robust self-cleaning surfaces that function when exposed to either air or oil. Science, 2015, 347, 1132-1135.	12.6	1,494
2	Rapid Fabrication of Large-Area, Corrosion-Resistant Superhydrophobic Mg Alloy Surfaces. ACS Applied Materials & Interfaces, 2011, 3, 4404-4414.	8.0	343
3	Structure, Synthesis, and Applications of TiO₂ Nanobelts. Advanced Materials, 2015, 27, 2557-2582.	21.0	287
4	Self-Driven One-Step Oil Removal from Oil Spill on Water via Selective-Wettability Steel Mesh. ACS Applied Materials & Interfaces, 2014, 6, 19858-19865.	8.0	226
5	S, Nâ€Coâ€Doped Grapheneâ€Nickel Cobalt Sulfide Aerogel: Improved Energy Storage and Electrocatalytic Performance. Advanced Science, 2017, 4, 1600214.	11.2	204
6	Super-robust superhydrophobic concrete. Journal of Materials Chemistry A, 2017, 5, 14542-14550.	10.3	170
7	Inexpensive and non-fluorinated superhydrophobic concrete coating for anti-icing and anti-corrosion. Journal of Colloid and Interface Science, 2019, 541, 86-92.	9.4	170
8	Large-scale fabrication of translucent and repairable superhydrophobic spray coatings with remarkable mechanical, chemical durability and UV resistance. Journal of Materials Chemistry A, 2017, 5, 10622-10631.	10.3	164
9	Table Salt as a Template to Prepare Reusable Porous PVDFâ€“MWCNT Foam for Separation of Immiscible Oils/Organic Solvents and Corrosive Aqueous Solutions. Advanced Functional Materials, 2017, 27, 1702926.	14.9	160
10	Creating superhydrophobic mild steel surfaces for water proofing and oilâ€“water separation. Journal of Materials Chemistry A, 2014, 2, 11628-11634.	10.3	153
11	Buoyancy increase and drag-reduction through a simple superhydrophobic coating. Nanoscale, 2017, 9, 7588-7594.	5.6	141
12	Creating robust superamphiphobic coatings for both hard and soft materials. Journal of Materials Chemistry A, 2015, 3, 20999-21008.	10.3	123
13	Tungsten Doped TiO2 with Enhanced Photocatalytic and Optoelectrical Properties via Aerosol Assisted Chemical Vapor Deposition. Scientific Reports, 2015, 5, 10952.	3.3	122
14	Large-Area Fabrication of Droplet Pancake Bouncing Surface and Control of Bouncing State. ACS Nano, 2017, 11, 9259-9267.	14.6	118
15	Preparation of Superoleophobic and Superhydrophobic Titanium Surfaces via an Environmentally Friendly Electrochemical Etching Method. ACS Sustainable Chemistry and Engineering, 2013, 1, 102-109.	6.7	113
16	Barrelâ€Shaped Oil Skimmer Designed for Collection of Oil from Spills. Advanced Materials Interfaces, 2015, 2, 1500350.	3.7	112
17	Ultrafast fabrication of rough structures required by superhydrophobic surfaces on Al substrates using an immersion method. Chemical Engineering Journal, 2012, 211-212, 143-152.	12.7	107
18	Efficiently texturing hierarchical superhydrophobic fluoride-free translucent films by AACVD with excellent durability and self-cleaning ability. Journal of Materials Chemistry A, 2018, 6, 17633-17641.	10.3	99

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19	Designing durable and flexible superhydrophobic coatings and its application in oil purification. Journal of Materials Chemistry A, 2016, 4, 4107-4116.	10.3	94
20	Creation of Topological Ultraslippery Surfaces for Droplet Motion Control. ACS Nano, 2021, 15, 2589-2599.	14.6	93
21	High-efficiency bubble transportation in an aqueous environment on a serial wedge-shaped wettability pattern. Journal of Materials Chemistry A, 2019, 7, 13567-13576.	10.3	90
22	Controllable Water Adhesion and Anisotropic Sliding on Patterned Superhydrophobic Surface for Droplet Manipulation. Journal of Physical Chemistry C, 2016, 120, 7233-7240.	3.1	89
23	Transforming a Simple Commercial Glue into Highly Robust Superhydrophobic Surfaces via Aerosol-Assisted Chemical Vapor Deposition. ACS Applied Materials & Interfaces, 2017, 9, 42327-42335.	8.0	85
24	Design and Fabrication of the Lyophobic Slippery Surface and Its Application in Anti-Icing. Journal of Physical Chemistry C, 2016, 120, 11054-11059.	3.1	84
25	A superhydrophilic cement-coated mesh: an acid, alkali, and organic reagent-free material for oil/water separation. Nanoscale, 2018, 10, 1920-1929.	5.6	81
26	The challenges, achievements and applications of submersible superhydrophobic materials. Chemical Society Reviews, 2021, 50, 6569-6612.	38.1	81
27	Fabrication of superoleophobic surfaces on Al substrates. Journal of Materials Chemistry A, 2013, 1, 14783.	10.3	79
28	A simple immersion approach for fabricating superhydrophobic Mg alloy surfaces. Applied Surface Science, 2013, 266, 445-450.	6.1	78
29	Super-durable, non-fluorinated superhydrophobic free-standing items. Journal of Materials Chemistry A, 2018, 6, 357-362.	10.3	75
30	One-step electrochemical machining of superhydrophobic surfaces on aluminum substrates. Journal of Materials Science, 2012, 47, 162-168.	3.7	72
31	Underwater Spontaneous Pumpless Transportation of Nonpolar Organic Liquids on Extreme Wettability Patterns. ACS Applied Materials & Interfaces, 2016, 8, 2942-2949.	8.0	72
32	Superhydrophobic Nickel-Electroplated Carbon Fibers for Versatile Oil/Water Separation with Excellent Reusability and High Environmental Stability. ACS Applied Materials & Interfaces, 2020, 12, 24390-24402.	8.0	72
33	Robust platform for water harvesting and directional transport. Journal of Materials Chemistry A, 2018, 6, 5635-5643.	10.3	71
34	Microâ€/Nanostructured Interface for Liquid Manipulation and Its Applications. Small, 2020, 16, e1903849.	10.0	70
35	Preparation of superhydrophobic titanium surfaces via electrochemical etching and fluorosilane modification. Applied Surface Science, 2012, 263, 297-301.	6.1	66
36	Macroscale Superlubricity Enabled by Grapheneâ€Coated Surfaces. Advanced Science, 2020, 7, 1903239.	11.2	64

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37	Robust Micro-Nanostructured Superhydrophobic Surfaces for Long-Term Dropwise Condensation. Nano Letters, 2021, 21, 9824-9833.	9.1	64
38	Unprecedented Piezoresistance Coefficient in Strained Silicon Carbide. Nano Letters, 2019, 19, 6569-6576.	9.1	62
39	TiO₂ Nanorod Array Constructed Nanotopography for Regulation of Mesenchymal Stem Cells Fate and the Realization of Locationâ€Committed Stem Cell Differentiation. Small, 2016, 12, 1770-1778.	10.0	57
40	Robust Superhydrophobic Conical Pillars from Syringe Needle Shape to Straight Conical Pillar Shape for Droplet Pancake Bouncing. ACS Applied Materials & Interfaces, 2019, 11, 45345-45353.	8.0	56
41	Tailoring Local Electrolyte Solvation Structure via a Mesoporous Molecular Sieve for Dendriteâ€Free Zinc Batteries. Advanced Functional Materials, 2022, 32, .	14.9	56
42	Ultrahigh Recovery of Fracture Strength on Mismatched Fractured Amorphous Surfaces of Silicon Carbide. ACS Nano, 2019, 13, 7483-7492.	14.6	54
43	Controlling the Adhesion of Superhydrophobic Surfaces Using Electrolyte Jet Machining Techniques. Scientific Reports, 2016, 6, 23985.	3.3	52
44	Self-standing electrodes with core-shell structures for high-performance supercapacitors. Energy Storage Materials, 2017, 9, 119-125.	18.0	52
45	Transparent superhydrophobic PTFE films via one-step aerosol assisted chemical vapor deposition. RSC Advances, 2017, 7, 29275-29283.	3.6	52
46	Superhydrophilicâ€“superhydrophobic patterned surfaces on glass substrate for water harvesting. Journal of Materials Science, 2020, 55, 498-508.	3.7	46
47	Water droplets bouncing on superhydrophobic soft porous materials. Journal of Materials Chemistry A, 2014, 2, 12177-12184.	10.3	45
48	Electrochemical fabrication of superhydrophobic Zn surfaces. Applied Surface Science, 2014, 315, 346-352.	6.1	42
49	Low-Cost One-Step Fabrication of Highly Conductive ZnO:Cl Transparent Thin Films with Tunable Photocatalytic Properties via Aerosol-Assisted Chemical Vapor Deposition. ACS Applied Electronic Materials, 2019, 1, 1408-1417.	4.3	41
50	Durable fire retardant, superhydrophobic, abrasive resistant and air/UV stable coatings. Journal of Colloid and Interface Science, 2021, 582, 301-311.	9.4	39
51	Thermally-induced all-damage-healable superhydrophobic surface with photocatalytic performance from hierarchical BiOCl. Chemical Engineering Journal, 2019, 366, 439-448.	12.7	37
52	Nanocrack-based strain sensors. Journal of Materials Chemistry C, 2021, 9, 754-772.	5.5	37
53	Characteristic and Application Study of Cold Atmospheric-Pressure Nitrogen Plasma Jet. IEEE Transactions on Plasma Science, 2015, 43, 1959-1968.	1.3	35
54	Hydrophilic patterning of superhydrophobic surfaces by atmosphericâ€pressure plasma jet. Micro and Nano Letters, 2015, 10, 105-108.	1.3	35

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55	Comparison Study of Self-Cleaning, Anti-Icing, and Durable Corrosion Resistance of Superhydrophobic and Lubricant-Infused Ultraslippery Surfaces. Langmuir, 2021, 37, 11061-11071.	3.5	35
56	Electrochemical machining of super-hydrophobic Al surfaces and effect of processing parameters on wettability. Applied Physics A: Materials Science and Processing, 2012, 108, 559-568.	2.3	34
57	Photocatalytic and electrically conductive transparent Cl-doped ZnO thin films <i>via</i> aerosol-assisted chemical vapour deposition. Journal of Materials Chemistry A, 2018, 6, 12682-12692.	10.3	34
58	Unprecedented enhancement of wear resistance for epoxy-resin graphene composites. Nanoscale, 2021, 13, 2855-2867.	5.6	34
59	Fabrication of superhydrophobic Cu surfaces on Al substrates via a facile chemical deposition process. Materials Letters, 2012, 87, 43-46.	2.6	33
60	TiO2 nanotube arrays decorated with Au and Bi2S3 nanoparticles for efficient Fe3+ ions detection and dye photocatalytic degradation. Journal of Materials Science and Technology, 2020, 39, 28-38.	10.7	32
61	Electrochemical machining of superhydrophobic surfaces on mold steel substrates. Surface and Coatings Technology, 2018, 344, 499-506.	4.8	30
62	Heterojunction Î±â€Fe₂O₃/ZnO Films with Enhanced Photocatalytic Properties Grown by Aerosolâ€Assisted Chemical Vapour Deposition. Chemistry - A European Journal, 2019, 25, 11337-11345.	3.3	28
63	Facile one-step fabrication of PHC/PDMS anti-icing coatings with mechanical properties and good durability. Progress in Organic Coatings, 2019, 135, 263-269.	3.9	28
64	Multifunctional Porous and Magnetic Silicone with High Elasticity, Durability, and Oilâ€“Water Separation Properties. Langmuir, 2018, 34, 13305-13311.	3.5	25
65	A simple, inexpensive and environmental-friendly electrochemical etching method to fabricate superhydrophobic GH4169 surfaces. Surface and Coatings Technology, 2020, 399, 126180.	4.8	25
66	Fabrication of Superhydrophobic Micro Post Array on Aluminum Substrates Using Mask Electrochemical Machining. Chinese Journal of Mechanical Engineering (English Edition), 2018, 31, .	3.7	24
67	Nanoscale SiO2-coated superhydrophobic meshes via electro-spray deposition for oil-water separation. Powder Technology, 2020, 373, 82-92.	4.2	24
68	Design robust, degradable and recyclable superhydrophobic materials. Chemical Engineering Journal, 2021, 420, 129806.	12.7	24
69	A Targeted Functional Design for Highly Efficient and Stable Cathodes for Rechargeable Liâ€Ion Batteries. Advanced Functional Materials, 2017, 27, 1604903.	14.9	22
70	A coating-free superhydrophobic sensing material for full-range human motion and microliter droplet impact detection. Chemical Engineering Journal, 2021, 410, 128418.	12.7	22
71	Rapid fabrication of superhydrophobic surfaces on copper substrates by electrochemical machining. Applied Surface Science, 2011, 257, 10910-10916.	6.1	21
72	Anisotropic sliding of multipleâ€level biomimetic riceâ€leaf surfaces on aluminium substrates. Micro and Nano Letters, 2013, 8, 801-804.	1.3	21

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73	A universal method to create surface patterns with extreme wettability on metal substrates. Journal of Colloid and Interface Science, 2019, 535, 100-110.	9.4	21
74	Loading capacity of a self-assembled superhydrophobic boat array fabricated via electrochemical method. Micro and Nano Letters, 2012, 7, 786.	1.3	20
75	Superoleophobic surfaces on stainless steel substrates obtained by chemical bath deposition. Micro and Nano Letters, 2017, 12, 76-81.	1.3	19
76	Computational Intelligenceâ€Assisted Understanding of Natureâ€Inspired Superhydrophobic Behavior. Advanced Science, 2018, 5, 1700520.	11.2	19
77	Study on the oil/water separation performance of a super-hydrophobic copper mesh under downhole conditions. Journal of Industrial and Engineering Chemistry, 2019, 72, 310-318.	5.8	19
78	Rational Design of Durable Anti-fouling Coatings with High Transparency, Hardness, and Flexibility. ACS Applied Materials & Interfaces, 2022, 14, 29156-29166.	8.0	19
79	Fabrication of superhydrophobic surfaces on Mg alloy substrates via primary cell corrosion and fluoroalkylsilane modification. Materials and Corrosion - Werkstoffe Und Korrosion, 2013, 64, 979-987.	1.5	18
80	Fabrication of Long-Term Underwater Superoleophobic Al Surfaces and Application on Underwater Lossless Manipulation of Non-Polar Organic Liquids. Scientific Reports, 2016, 6, 31818.	3.3	18
81	Synthesis and characterization of omniphobic surfaces with thermal, mechanical and chemical stability. RSC Advances, 2016, 6, 106491-106499.	3.6	17
82	Photolithography-assisted precise patterning of nanocracks for ultrasensitive strain sensors. Journal of Materials Chemistry A, 2021, 9, 4262-4272.	10.3	17
83	Functionalised gold and titania nanoparticles and surfaces for use as antimicrobial coatings. Faraday Discussions, 2014, 175, 273-287.	3.2	16
84	Power-free water pump based on a superhydrophobic surface: generation of a mushroom-like jet and anti-gravity long-distance transport. Journal of Materials Chemistry A, 2016, 4, 13771-13777.	10.3	16
85	A rapid two-step electroless deposition process to fabricate superhydrophobic coatings on steel substrates. Journal of Coatings Technology Research, 2012, 9, 643-650.	2.5	14
86	Architecture-Driven Fast Droplet Transport without Mass Loss. Langmuir, 2021, 37, 12519-12528.	3.5	14
87	Fabrication of superhydrophobic surfaces with hierarchical rough structures on Mg alloy substrates via chemical corrosion method. Micro and Nano Letters, 2012, 7, 204.	1.3	13
88	Sacrificial layer-assisted nanoscale transfer printing. Microsystems and Nanoengineering, 2020, 6, 80.	7.0	13
89	Single Step Solution Processed GaAs Thin Films from GaMe3andtBuAsH2under Ambient Pressure. Journal of Physical Chemistry C, 2016, 120, 7013-7019.	3.1	12
90	Highly Photocatalytically Active Iron(III) Titanium Oxide Thin films via Aerosolâ€Assisted CVD. Chemical Vapor Deposition, 2015, 21, 21-25.	1.3	8

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91	Liquid-like transparent and flexible coatings for anti-graffiti applications. Progress in Organic Coatings, 2021, 161, 106476.	3.9	8
92	Fabrication Technology of Low-Adhesive Superhydrophobic and Superamphiphobic Surfaces Based on Electrochemical Machining Method. Journal of Micro and Nano-Manufacturing, 2013, 1, .	0.7	7
93	Bamboo-joint-like platforms for fast, long-distance, directional, and spontaneous transport of fluids. Biomicrofluidics, 2020, 14, 034105.	2.4	7
94	Saturated Surface Charging on Micro/Nanoporous Polytetrafluoroethylene for Droplet Manipulation. ACS Applied Nano Materials, 2022, 5, 3342-3351.	5.0	7
95	Fabrication of superhydrophobic surfaces with high adhesive forces towards water on steel substrates. Micro and Nano Letters, 2012, 7, 456.	1.3	6
96	Oneâ€step synthesis of Ag@PS nanospheres via flash nanoprecipitation. Applied Organometallic Chemistry, 2019, 33, e4713.	3.5	6
97	Fabrication of Low-Adhesive Superhydrophobic Al Surfaces via Self-Assembled Primary Cell Assisted Etching. Journal of Dispersion Science and Technology, 2013, 34, 908-913.	2.4	5
98	Energy conversion based on superhydrophobic surfaces. Physical Chemistry Chemical Physics, 2020, 22, 25430-25444.	2.8	5
99	Synthesis of superhydrophobic polymer/tungsten (VI) oxide nanocomposite thin films. European Journal of Chemistry, 2016, 7, 139-145.	0.6	5
100	Fabrication of Superhydrophobic Surfaces on Aluminum Substrates via Electrochemical Etching and Re-Deposition. Applied Mechanics and Materials, 2012, 197, 351-355.	0.2	4
101	Controlling and modelling the wetting properties of III-V semiconductor surfaces using re-entrant nanostructures. Scientific Reports, 2018, 8, 3544.	3.3	4
102	Self-healing on mismatched fractured composite surfaces of SiC with a diameter of 180 nm. Nanoscale, 2020, 12, 19617-19627.	5.6	3