Zhaozhu Zhang

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/2105400/publications.pdf

Version: 2024-02-01

110 papers	4,755 citations	94433 37 h-index	102487 66 g-index
110 all docs	110 docs citations	110 times ranked	4494 citing authors

#	Article	IF	Citations
1	Robust and Durable Superhydrophobic Cotton Fabrics for Oil/Water Separation. ACS Applied Materials & Interfaces, 2013, 5, 7208-7214.	8.0	540
2	Superhydrophilicâ€“superoleophobic coatings. Journal of Materials Chemistry, 2012, 22, 2834.	6.7	370
3	Robust superhydrophobic surfaces with mechanical durability and easy repairability. Journal of Materials Chemistry, 2011, 21, 15793.	6.7	217
4	Facile Fabrication of Superhydrophobic Sponge with Selective Absorption and Collection of Oil from Water. Industrial & Engineering Chemistry Research, 2013, 52, 9411-9416.	3.7	194
5	Facile synthesis of copper/polydopamine functionalized graphene oxide nanocomposites with enhanced tribological performance. Chemical Engineering Journal, 2017, 324, 51-62.	12.7	125
6	Superoleophobic textured aluminum surfaces. New Journal of Chemistry, 2011, 35, 2422.	2.8	107
7	A versatile approach to produce superhydrophobic materials used for oilâ€“water separation. Journal of Colloid and Interface Science, 2014, 432, 105-108.	9.4	103
8	Environmentally Safe and Porous MS@TiO₂@PPy Monoliths with Superior Visible-Light Photocatalytic Properties for Rapid Oilâ€“Water Separation and Water Purification. ACS Sustainable Chemistry and Engineering, 2020, 8, 5347-5359.	6.7	103
9	Study of tribological properties of polyimide/graphene oxide nanocomposite films under seawater-lubricated condition. Tribology International, 2014, 80, 131-140.	5.9	101
10	Preparation and Tribological Properties of Polyimide/Carboxyl-Functionalized Multi-walled Carbon Nanotube Nanocomposite Films Under Seawater Lubrication. Tribology Letters, 2015, 58, 1.	2.6	100
11	A novel superhydrophobic bulk material. Journal of Materials Chemistry, 2012, 22, 20146.	6.7	99
12	A simple approach to fabricate superoleophobic coatings. New Journal of Chemistry, 2011, 35, 576-580.	2.8	96
13	Synthesis of the liquid-like graphene with excellent tribological properties. Tribology International, 2017, 105, 118-124.	5.9	89
14	One-pot fabrication of nanoporous polymer decorated materials: from oil-collecting devices to high-efficiency emulsion separation. Journal of Materials Chemistry A, 2017, 5, 5077-5087.	10.3	88
15	A graphene coated cotton for oil/water separation. Composites Science and Technology, 2014, 102, 100-105.	7.8	87
16	Surface modification of hybrid-fabric composites with amino silane and polydopamine for enhanced mechanical and tribological behaviors. Tribology International, 2017, 107, 10-17.	5.9	72
17	One-step spraying to fabricate nonfluorinated superhydrophobic coatings with high transparency. Journal of Materials Science, 2016, 51, 2411-2419.	3.7	69
18	A facile and fast approach to mechanically stable and rapid self-healing waterproof fabrics. Composites Science and Technology, 2016, 125, 55-61.	7.8	68

#	Article	IF	Citations
19	One-pot, template-free synthesis of a robust superhydrophobic polymer monolith with an adjustable hierarchical porous structure. Green Chemistry, 2016, 18, 5266-5272.	9.0	60
20	Designing transparent superamphiphobic coatings directed by carbon nanotubes. Journal of Colloid and Interface Science, 2014, 421, 141-145.	9.4	58
21	Tribological Behaviors of Polyurethane Composite Coatings Filled with Ionic Liquid Core/Silica Gel Shell Microcapsules. Tribology Letters, 2015, 58, 1.	2.6	58
22	Environmentally safe, substrate-independent and repairable nanoporous coatings: large-scale preparation, high transparency and antifouling properties. Journal of Materials Chemistry A, 2017, 5, 20277-20288.	10.3	58
23	Ultrafast Fabrication of Metalâ€“Organic Framework-Functionalized Superwetting Membrane for Multichannel Oil/Water Separation and Floating Oil Collection. ACS Applied Materials & Interfaces, 2020, 12, 25512-25520.	8.0	56
24	Construction of super-hydrophobic PDMS@MOF@Cu mesh for reduced drag, anti-fouling and self-cleaning towards marine vehicle applications. Chemical Engineering Journal, 2021, 417, 129265.	12.7	56
25	A superhydrophobic monolithic material with tunable wettability for oil and water separation. Journal of Materials Science, 2015, 50, 2365-2369.	3.7	54
26	A waterproofing textile with robust superhydrophobicity in either air or oil surroundings. Journal of the Taiwan Institute of Chemical Engineers, 2017, 71, 421-425.	5.3	54
27	Air Cushion Convection Inhibiting Icing of Self-Cleaning Surfaces. ACS Applied Materials & Interfaces, 2016, 8, 29169-29178.	8.0	53
28	Effect of MWCNTs-GO hybrids on tribological performance of hybrid PTFE/Nomex fabric/phenolic composite. Composites Science and Technology, 2017, 146, 155-160.	7.8	53
29	Coupling hybrid of BN nanosheets and carbon nanotubes to enhance the mechanical and tribological properties of fabric composites. Composites Part A: Applied Science and Manufacturing, 2019, 123, 132-140.	7.6	51
30	Rapid and reversible switching between superoleophobicity and superoleophilicity in response to counterion exchange. Journal of Colloid and Interface Science, 2012, 366, 191-195.	9.4	49
31	A magnetically superhydrophobic bulk material for oil removal. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 429, 129-133.	4.7	45
32	Fabrication of BiOBr-silicone aerogel photocatalyst in an aqueous system with degradation performance by sol-gel method. Science China Technological Sciences, 2020, 63, 859-865.	4.0	44
33	Spray-coated superhydrophobic coatings with regenerability. New Journal of Chemistry, 2011, 35, 881.	2.8	42
34	Facile fabrication of superhydrophobic sand: Potential advantages for practical application in oilâ€“water separation. Journal of the Taiwan Institute of Chemical Engineers, 2016, 60, 651-655.	5.3	42
35	Effect of ZrB2 particles incorporation on high-temperature tribological properties of hybrid PTFE/Nomex fabric/phenolic composite. Tribology International, 2016, 99, 289-295.	5.9	41
36	Carbon nanotubes coated hybrid-fabric composites with enhanced mechanical and thermal properties for tribological applications. Composites Part A: Applied Science and Manufacturing, 2017, 102, 243-252.	7.6	41

#	Article	IF	Citations
37	Facile fabrication of superoleophobic surfaces with enhanced corrosion resistance and easy repairability. Applied Physics A: Materials Science and Processing, 2012, 108, 601-606.	2.3	38
38	Fabrication of the g-C₃N₄/Cu nanocomposite and its potential for lubrication applications. RSC Advances, 2015, 5, 64254-64260.	3.6	38
39	Fabrication of PTFE/Nomex fabric/phenolic composites using a layer-by-layer self-assembly method for tribology field application. Friction, 2020, 8, 335-342.	6.4	38
40	Influence of air-plasma treatment and hexagonal boron nitride as filler on the high temperature tribological behaviors of hybrid PTFE/Nomex fabric/phenolic composite. European Polymer Journal, 2015, 67, 143-151.	5.4	37
41	One-step synthesis of g-C3N4 nanosheets to improve tribological properties of phenolic coating. Tribology International, 2019, 132, 221-227.	5.9	36
42	TiB2 reinforced hybrid-fabric composites with enhanced thermal and mechanical properties for high-temperature tribological applications. Tribology International, 2017, 115, 8-17.	5.9	35
43	A versatile and efficient approach to separate both surfactant-stabilized water-in-oil and oil-in-water emulsions. Separation and Purification Technology, 2017, 176, 1-7.	7.9	34
44	POSS grafted hybrid-fabric composites with a biomimic middle layer for simultaneously improved UV resistance and tribological properties. Composites Science and Technology, 2018, 160, 69-78.	7.8	34
45	A rapid, facile and practical fabrication of robust PDMS@starch coatings for oil-water separation. Journal of the Taiwan Institute of Chemical Engineers, 2019, 99, 215-223.	5.3	34
46	Influence of lubricant filling on the dry sliding wear behaviors of hybrid PTFE/Nomex fabric composite. Journal of Materials Science, 2014, 49, 3716-3724.	3.7	33
47	Versatile fabrication of magnetic carbon fiber aerogel applied for bidirectional oilâ€“water separation. Applied Physics A: Materials Science and Processing, 2015, 120, 949-957.	2.3	33
48	In situ reduction and functionalization of graphene oxide to improve the tribological behavior of a phenol formaldehyde composite coating. Friction, 2015, 3, 72-81.	6.4	32
49	The efficient separation of surfactant-stabilized water-in-oil emulsions with a superhydrophobic filter paper. Applied Physics A: Materials Science and Processing, 2015, 121, 1291-1297.	2.3	31
50	Water vapor recovery device designed with interface local heating principle and its application in clean water production. Journal of Materials Chemistry A, 2021, 9, 7967-7976.	10.3	31
51	A biomimetic approach to improving tribological properties of hybrid PTFE/Nomex fabric/phenolic composites. European Polymer Journal, 2016, 78, 163-172.	5.4	30
52	An eco-friendly one-step method to fabricate superhydrophobic nanoparticles with hierarchical architectures. Chemical Engineering Journal, 2017, 327, 530-538.	12.7	30
53	WS2-filled hybrid PTFE/Nomex fabric composites with improved antiwear property. Journal of Materials Science, 2015, 50, 1065-1070.	3.7	27
54	Friction and wear behaviors of MoS2-multi-walled-carbonnanotube hybrid reinforced polyurethane composite coating. Friction, 2019, 7, 316-326.	6.4	27

#	Article	IF	Citations
55	Tribological behavior of spun Kevlar fabric composites filled with fluorinated compounds. Tribology International, 2010, 43, 1466-1471.	5.9	26
56	Enhancement of the tribological properties of carbon fiber/epoxy composite by grafting carbon nanotubes onto fibers. RSC Advances, 2016, 6, 49387-49394.	3.6	25
57	Design robust, degradable and recyclable superhydrophobic materials. Chemical Engineering Journal, 2021, 420, 129806.	12.7	24
58	High-temperature tribological performance of hybrid PTFE/Nomex fabric/phenolic composite. Composites Science and Technology, 2014, 104, 146-151.	7.8	23
59	Combined effect of air-plasma treatment and lubricant filling on the dry sliding wear behavior of hybrid PTFE/Nomex fabric/phenolic composite. Composites Science and Technology, 2014, 100, 204-211.	7.8	23
60	Fabrication of Bionic Superhydrophobic Manganese Oxide/Polystyrene Nanocomposite Coating. Journal of Bionic Engineering, 2012, 9, 11-17.	5.0	22
61	Facile synthesis of CuO/g-C3N4 hybrids for enhancing the wear resistance of polyimide composite. European Polymer Journal, 2019, 116, 463-470.	5.4	22
62	Synergistic effects of COF and GO on high flux oil/water separation performance of superhydrophobic composites. Separation and Purification Technology, 2021, 276, 119268.	7.9	22
63	Synergistic effects of AlB2 and fluorinated graphite on the mechanical and tribological properties of hybrid fabric composites. Composites Science and Technology, 2017, 143, 75-81.	7.8	21
64	Preparation of superhydrophobic CdS cotton using visible light response and its application for the control of water pollution. Science China Technological Sciences, 2019, 62, 2236-2242.	4.0	20
65	Rational Design of Durable Anti-fouling Coatings with High Transparency, Hardness, and Flexibility. ACS Applied Materials & Interfaces, 2022, 14, 29156-29166.	8.0	19
66	Sliding wear behaviors of Nomex fabric/phenolic composite under dry and water-bathed sliding conditions. Friction, 2014, 2, 264-271.	6.4	18
67	Enhanced mechanical and tribological properties of Kevlar/<scp>PTFEâ€phenolic</scp> composites by improving interfacial properties by aramid nanofibers. Polymer Composites, 2020, 41, 4192-4201.	4.6	17
68	Graphene Oxide-Grafted Hybrid-Fabric Composites with Simultaneously Improved Mechanical and Tribological Properties. Tribology Letters, 2018, 66, 1.	2.6	16
69	Tribological Behaviors of Hybrid PTFE/Nomex Fabric/Phenolic Composite under Dry and Water-Bathed Sliding Conditions. Tribology Transactions, 2014, 57, 1116-1121.	2.0	15
70	Durable superwetting materials through layer-by-layer assembly: Multiple separations towards water/oil mixtures, water-in-oil and oil-in-water emulsions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 571, 142-150.	4.7	15
71	Combined effects of interface modification and micro-filler reinforcements on the thermal and tribological performances of fabric composites. Friction, 2021, 9, 1110-1126.	6.4	15
72	Stable Biomimetic Super-Hydrophobic Copper Surface Fabricated by a Simple Wet-Chemical Method. Journal of Dispersion Science and Technology, 2010, 31, 488-491.	2.4	14

#	Article	IF	Citations
73	Growth of Mo₂C nanoparticles on graphene as lubricant filler for high tribological performances of fabric self-lubricating liner composites. RSC Advances, 2016, 6, 110070-110076.	3.6	14
74	Multifunctional superamphiphobic fabric with hierarchical structures via a mild water-based strategy. Applied Surface Science, 2019, 470, 687-694.	6.1	14
75	Modified montmorillonite synergizes with Co-MOF@PBO fabric to improve the wear resistance of PBO/phenolic resin composites. Journal of Colloid and Interface Science, 2022, 611, 480-490.	9.4	14
76	A facile route to mechanically durable responsive surfaces with reversible wettability switching. New Journal of Chemistry, 2012, 36, 1280.	2.8	13
77	Enhancing interfacial and tribological properties of self-lubricating liner composites via Layer-by-Layer self-assembly MgAl-LDH/PAMPA multilayers film on fibers surface. Tribology International, 2019, 140, 105887.	5.9	13
78	Synchronously improved thermal conductivity and tribological performance of self-lubricating fabric liner composites via integrated design method with copper yarn. Tribology International, 2021, 164, 107204.	5.9	12
79	Tribological behavior of Kevlar fabric composites filled with nanoparticles. Journal of Applied Polymer Science, 2009, 111, 2419-2425.	2.6	11
80	Mulberry-like carbon spheres decorated with UiO-66-NH2 for enhancing the mechanical and tribological performances of UHMWPE composites. Tribology International, 2020, 141, 105916.	5.9	11
81	Enhanced highâ€temperature tribological performance of <scp>PTFE</scp>/<scp>PI</scp> fabric composites by simultaneously introducing <scp>PDA</scp>/<scp>SiO₂</scp> hybrid coating and aramid product reinforcements. Polymer Composites, 2021, 42, 3539-3549.	4.6	10
82	Ag nanoparticles homogeneously anchored on kaolin synergistically improve the tribological performance of PBO/phenolic resin liner composites. Tribology International, 2022, 168, 107424.	5.9	10
83	Growth of NiFe-layered double hydroxide nano-sheet arrays on hybrid textile for highly tribological performances of self-lubricating liner composites. Tribology International, 2019, 133, 12-20.	5.9	9
84	Constructing the hierarchical TiN@ZIF-8 hybrid for improving the mechanical and tribological performance of fabric composites. Composites Communications, 2022, 31, 101114.	6.3	9
85	A facile method for imparting superoleophobicity to polymer substrates. Applied Physics A: Materials Science and Processing, 2014, 114, 1129-1133.	2.3	8
86	Crackâ€Free Drying of Ceramic Microparts on a Hydrophobic Flexible Polymer Substrate Using Soft Lithography. Journal of the American Ceramic Society, 2016, 99, 1141-1143.	3.8	8
87	<scp>MoS₂</scp>â€decorated talc hybrid for improving the tribological property of Nomex/<scp>PTFE</scp> fabric composites. Polymer Composites, 2021, 42, 5839-5849.	4.6	8
88	Liquid-like transparent and flexible coatings for anti-graffiti applications. Progress in Organic Coatings, 2021, 161, 106476.	3.9	8
89	CuO nanowires uniformly grown on carbon cloth to improve mechanical and tribological properties of polyimide composites. Materials Chemistry and Physics, 2022, 281, 125852.	4.0	8
90	Graphene enhanced and in situ-formed alginate hydrogels for reducing friction and wear of polymers. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 589, 124434.	4.7	7

#	Article	IF	Citations
91	Influence of Surface Modification on Tribo-Performance of Hybrid Glass/PTFE Fabric Composite with Phenolic Resin Binder. Applied Composite Materials, 2007, 14, 223-234.	2.5	6
92	A comparative study on wear and friction characteristics of phenolic composite coatings filled with different morphologies ZnO. Polymers for Advanced Technologies, 2019, 30, 1173-1181.	3.2	6
93	Reversible Switching of Surface Wettability and Water Adhesion on a Polymer Nano-composite Coating. Journal of Adhesion Science and Technology, 2012, 26, 1083-1091.	2.6	5
94	Rapid fabrication of a transparent superhydrophobic coating: potential application with pollution-free under construction. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	2.3	5
95	Surface modification of YS-20 with polydopamine for improving the tribological properties of polyimide composites. Friction, 0, , 1.	6.4	5
96	Well-ordered polymer nano-fibers with self-cleaning property by disturbing crystallization process. Nanoscale Research Letters, 2014, 9, 352.	5.7	4
97	Fabrication of alumina micromixer with twoâ€dimensional serpentine microchannels by centrifugeâ€assisted micromoulding. Micro and Nano Letters, 2015, 10, 703-706.	1.3	4
98	One-step foaming method to functional polyurethane absorbents foam. Separation Science and Technology, 2016, 51, 1299-1306.	2.5	4
99	Hybrid Fabric/Molybdic Acid-Modified Phenolic Resin Composites with Improved Antiwear Properties. Tribology Transactions, 2016, 59, 244-251.	2.0	4
100	Combined effects of interface modification and nanoâ€reinforcement via nanoâ€enhanced interphase in hybridâ€fabric composites for tribological applications. Polymer Composites, 2019, 40, 3383-3392.	4.6	4
101	Influence of fabric geometry on yarn pullâ€out property and wear performance of hybrid Sâ€glass/<scp>PTFE</scp> fabricâ€reinforced composites. Polymers for Advanced Technologies, 2021, 32, 315-325.	3.2	4
102	Combined effect of interfacial modification and Î±-ZrP reinforcement on the tribological properties of PPS fabric/phenolic composites. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 648, 129118.	4.7	4
103	Superhydrophobic CdSâ€“melamine elastomer catalyst design with evaluation of its pollutant degradation performance under visible light. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	2.3	3
104	Synergy of B 4 C @ MoS 2 hybrid for significantly improved mechanical and tribological properties of PI / PTFE fabric composites. Polymer Composites, 0, , .	4.6	3
105	Adopting bio-inspired interfacial modification and reinforcements simultaneously for optimizing the tribological performance of fabric composites. Tribology International, 2022, 169, 107495.	5.9	3
106	Design of Selfâ€Floating Photothermal Conversion Devices with Solar Steam Generation Capability. Advanced Materials Interfaces, 2022, 9, .	3.7	3
107	Switchable Adhesion of Superhydrophobic ZnO Nanorod Film. Journal of Macromolecular Science - Pure and Applied Chemistry, 2010, 47, 1091-1095.	2.2	2
108	Tribological properties of PBO fabric composites modified by poly (vinyl alcohol). Journal of Applied Polymer Science, 2013, 130, 1313-1320.	2.6	1

#	Article	IF	Citations
109	The effect of oil fouling on the mechanical and tribological properties of nomex fabric/phenolic composite. Journal of Composite Materials, 2016, 50, 427-432.	2.4	0
110	Synchronously improved ozone aging resistance and tribological performance of selfâ€lubricating fabric composites via 2â€mercaptobenzimidazole. Polymer Composites, 0, , .	4.6	0