Yijun Shi

List of Publications by Year
in descending order

91	2,577	159585 30	233421 45
papers	citations	h-index	g-index

91	91	91	2263
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nanolubricant additives: A review. Friction, 2021, 9, 891-917.	6.4	124
2	Boundary and elastohydrodynamic lubrication studies of glycerol aqueous solutions as green lubricants. Tribology International, 2014, 69, 39-45.	5.9	83
3	The effect of surface modification on the friction and wear behavior of carbon nanofiber-filled PTFE composites. Wear, 2008, 264, 934-939.	3.1	79
4	Facile synthesis of mesoporous carbon nanocomposites from natural biomass for efficient dye adsorption and selective heavy metal removal. RSC Advances, 2016, 6, 2259-2269.	3.6	74
5	Non-corrosive and Biomaterials Protic Ionic Liquids with High Lubricating Performance. Tribology Letters, 2016, 63, 1.	2.6	71
6	Noncontact triboelectric nanogenerator for human motion monitoring and energy harvesting. Nano Energy, 2020, 69, 104390.	16.0	70
7	Toward wear-resistive, highly durable and high performance triboelectric nanogenerator through interface liquid lubrication. Nano Energy, 2020, 72, 104659.	16.0	70
8	Non-corrosive green lubricants: strengthened ligninâ€"[choline][amino acid] ionic liquids interaction via reciprocal hydrogen bonding. RSC Advances, 2015, 5, 66067-66072.	3.6	68
9	Holistically Engineered Polymerâ€"Polymer and Polymerâ€"Ion Interactions in Biocompatible Polyvinyl Alcohol Blends for Highâ€Performance Triboelectric Devices in Selfâ€Powered Wearable Cardiovascular Monitorings. Advanced Materials, 2020, 32, e2002878.	21.0	66
10	The tribological behavior of nanometer and micrometer TiO2 particle-filled polytetrafluoroethylene/polyimide. Materials & Design, 2011, 32, 964-970.	5.1	62
11	Effects of filler crystal structure and shape on the tribological properties of PTFE composites. Tribology International, 2007, 40, 1195-1203.	5.9	57
12	Real-Time and Online Lubricating Oil Condition Monitoring Enabled by Triboelectric Nanogenerator. ACS Nano, 2021, 15, 11869-11879.	14.6	56
13	Green processing of plant biomass into mesoporous carbon as catalyst support. Chemical Engineering Journal, 2016, 295, 301-308.	12.7	55
14	Lignin in Ethylene Glycol and Poly(ethylene glycol): Fortified Lubricants with Internal Hydrogen Bonding. ACS Sustainable Chemistry and Engineering, 2016, 4, 1840-1849.	6.7	54
15	A study on the friction and wear behavior of polytetrafluoroethylene filled with potassium titanate whiskers. Wear, 2006, 261, 1208-1212.	3.1	53
16	The effect of thermal conductivity and friction coefficient on the contact temperature of polyimide composites: Experimental and finite element simulation. Tribology International, 2012, 53, 45-52.	5.9	53
17	Molecular Origin of Efficient Phonon Transfer in Modulated Polymer Blends: Effect of Hydrogen Bonding on Polymer Coil Size and Assembled Microstructure. Journal of Physical Chemistry C, 2017, 121, 14204-14212.	3.1	53
18	Effect of humidity and counterface material on the friction and wear of carbon fiber reinforced PTFE composites. Tribology International, 2021, 157, 106869.	5.9	46

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19	Ionic Grease Lubricants: Protic [Triethanolamine][Oleic Acid] and Aprotic [Choline][Oleic Acid]. ACS Applied Materials & Interfaces, 2016, 8, 4977-4984.	8.0	45
20	The effects of the size and content of potassium titanate whiskers on the properties of PTW/PTFE composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 448, 253-258.	5.6	44
21	Prediction on tribological properties of carbon fiber and TiO2 synergistic reinforced polytetrafluoroethylene composites with artificial neural networks. Materials & Design, 2009, 30, 1042-1049.	5.1	43
22	La-modified SBA-15/H2O2 systems for the microwave assisted oxidation of organosolv beech wood lignin. Maderas: Ciencia Y Tecnologia, 2012, 14, 31-41.	0.7	43
23	Comparative Study of Tribological Properties of Different Fibers Reinforced PTFE/PEEK Composites at Elevated Temperatures. Tribology Transactions, 2010, 53, 189-194.	2.0	41
24	Tribological and mechanical properties of carbon-nanofiber-filled polytetrafluoroethylene composites. Journal of Applied Polymer Science, 2007, 104, 2430-2437.	2.6	38
25	CuO nanosheets produced in graphene oxide solution: An excellent anti-wear additive for self-lubricating polymer composites. Composites Science and Technology, 2018, 162, 86-92.	7.8	37
26	Lignin from Hardwood and Softwood Biomass as a Lubricating Additive to Ethylene Glycol. Molecules, 2018, 23, 537.	3.8	37
27	[N-Methyl-2-pyrrolidone][C1â€“C4 carboxylic acid]: a novel solvent system with exceptional lignin solubility. Chemical Communications, 2015, 51, 13554-13557.	4.1	36
28	Enriching Heteroelements in Lignin as Lubricating Additives for Bioionic Liquids. ACS Sustainable Chemistry and Engineering, 2016, 4, 3877-3887.	6.7	36
29	DLC and Glycerol: Superlubricity in Rolling/Sliding Elastohydrodynamic Lubrication. Tribology Letters, 2019, 67, 1.	2.6	36
30	Tribological properties of PTFE composites filled with surface-treated carbon fiber. Journal of Materials Science, 2007, 42, 8465-8469.	3.7	35
31	Paving the Thermal Highway with Self-Organized Nanocrystals in Transparent Polymer Composites. ACS Applied Materials & Interfaces, 2016, 8, 29080-29087.	8.0	35
32	Operando Formation of Van der Waals Heterostructures for Achieving Macroscale Superlubricity on Engineering Rough and Worn Surfaces. Advanced Functional Materials, 2022, 32, .	14.9	31
33	Halogen-free ionic liquids as excellent lubricants for PEEK-stainless steel contacts at elevated temperatures. Tribology International, 2016, 104, 1-9.	5.9	29
34	Pore size dependent molecular adsorption of cationic dye in biomass derived hierarchically porous carbon. Journal of Environmental Management, 2017, 196, 168-177.	7.8	29
35	Synthesis of hollow fullerene-like molybdenum disulfide/reduced graphene oxide nanocomposites with excellent lubricating properties. Carbon, 2018, 134, 423-430.	10.3	29
36	Two important factors of selecting lignin as efficient lubricating additives in poly (ethylene glycol): Hydrogen bond and molecular weight. International Journal of Biological Macromolecules, 2019, 129, 564-570.	7.5	28

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37	Two-dimensional (2D) graphene nanosheets as advanced lubricant additives: A critical review and prospect. Materials Today Communications, 2021, 29, 102755.	1.9	28
38	Effect of both grafting and blending modifications on the performance of lignosulphonate-modified sulphanilic acidâ€“phenolâ€“formaldehyde condensates. Cement and Concrete Research, 2012, 42, 1199-1206.	11.0	25
39	Friction and Wear Behavior of CF/PTFE Composites Lubricated by Choline Chloride Ionic Liquids. Tribology Letters, 2013, 49, 413-420.	2.6	25
40	Tribological behavior of carbon nanotube and polytetrafluoroethylene filled polyimide composites under different lubricated conditions. Journal of Applied Polymer Science, 2011, 121, 1574-1578.	2.6	24
41	Tribological properties of polyimide coating filled with carbon nanotube at elevated temperatures. Polymer Composites, 2020, 41, 2652-2661.	4.6	24
42	Tribological properties of polyimide-graphene composite coatings at elevated temperatures. Progress in Organic Coatings, 2020, 142, 105602.	3.9	24
43	Effects of fibrous fillers on friction and wear properties of polytetrafluoroethylene composites under dry or wet conditions. Particuology: Science and Technology of Particles, 2007, 5, 414-419.	0.4	23
44	Engineering Hydrogen Bonding Interaction and Charge Separation in Bio-Polymers for Green Lubrication. Journal of Physical Chemistry B, 2017, 121, 5669-5678.	2.6	23
45	Self-Lubricating Polytetrafluoroethylene/Polyimide Blends Reinforced with Zinc Oxide Nanoparticles. Journal of Nanomaterials, 2015, 2015, 1-8.	2.7	22
46	Turning the solubility and lubricity of ionic liquids by absorbing CO 2. Tribology International, 2018, 121, 223-230.	5.9	22
47	Polyelectrolyte cellulose gel with PEG/water: Toward fully green lubricating grease. Carbohydrate Polymers, 2020, 230, 115670.	10.2	22
48	Grafting heteroelement-rich groups on graphene oxide: Tuning polarity and molecular interaction with bio-ionic liquid for enhanced lubrication. Journal of Colloid and Interface Science, 2017, 498, 47-54.	9.4	19
49	Tribological characterisation of polymer composites for hydropower bearings: Experimentally developed versus commercial materials. Tribology International, 2021, 162, 107101.	5.9	19
50	Stable Dispersed Zeolitic Imidazolate Framework/Graphene Oxide Nanocomposites in Ionic Liquids Resulting in High Lubricating Performance. Advanced Materials Interfaces, 2020, 7, 1902194.	3.7	18
51	How does hydrogen bond network analysis reveal the golden ratio of waterâ€“glycerol mixtures?. Physical Chemistry Chemical Physics, 2020, 22, 2887-2907.	2.8	18
52	Effects of surface micro-structures on capacitances of the dielectric layer in triboelectric nanogenerator: A numerical simulation study. Nano Energy, 2021, 79, 105432.	16.0	18
53	Poly(ionic liquid)s as lubricant additives with insight into adsorption-lubrication relationship. Tribology International, 2022, 165, 107278.	5.9	18
54	Elastohydrodynamic Performance of a Bio-Based, Non-Corrosive Ionic Liquid. Applied Sciences (Switzerland), 2017, 7, 996.	2.5	17

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55	Novel Biorefinery Approach Aimed at Vegetarians Reduces the Dependency on Marine Fish Stocks for Obtaining Squalene and Docosahexaenoic Acid. ACS Sustainable Chemistry and Engineering, 2020, 8, 8803-8813.	6.7	17
56	High load capacity with ionic liquid-lubricated tribological system. Tribology International, 2016, 94, 315-322.	5.9	16
57	Controllable superlubricity achieved with mixtures of green ionic liquid and glycerol aqueous solution via humidity. Journal of Molecular Liquids, 2022, 345, 117860.	4.9	16
58	Interfaceâ€Strengthened Polyimide/Carbon Nanofibers Nanocomposites with Superior Mechanical and Tribological Properties. Macromolecular Chemistry and Physics, 2014, 215, 1407-1414.	2.2	15
59	Right Way of Using Graphene Oxide Additives for Water-Lubricated PEEK: Adding in Polymer or Water?. Tribology Letters, 2018, 66, 1.	2.6	15
60	Tribological Properties of Porous PEEK Composites Containing Ionic Liquid under Dry Friction Condition. Lubricants, 2017, 5, 19.	2.9	14
61	Controllable Friction of Green Ionic Liquids via Environmental Humidity. Advanced Engineering Materials, 2020, 22, 1901253.	3.5	14
62	Versatile Ionic Gel Driven by Dual Hydrogen Bond Networks: Toward Advanced Lubrication and Self-Healing. ACS Applied Polymer Materials, 2021, 3, 5932-5941.	4.4	14
63	LA-CONTAINING SBA-15/H2O2 SYSTEMS FOR THE MICROWAVE ASSISTED OXIDATION OF A LIGNIN MODEL PHENOLIC MONOMER. Maderas: Ciencia Y Tecnologia, 2010, 12, .	0.7	13
64	Synthesis of Epoxidatied Castor Oil and Its Effect on the Properties of Waterborne Polyurethane. Procedia Engineering, 2011, 18, 37-42.	1.2	12
65	Structural strategies to design bio-ionic liquid: Tuning molecular interaction with lignin for enhanced lubrication. Journal of Molecular Liquids, 2019, 280, 49-57.	4.9	12
66	A study of tribological and mechanical properties of PTFE composites filled with surface treated K₂Ti₆O₁₃ whisker. Journal of Applied Polymer Science, 2012, 124, 1456-1463.	2.6	11
67	Tribological and Mechanical Properties of Carbon Nanofiber-Filled Polytetrafluoroethylene/Polyimide Composites. Journal of Nanoscience and Nanotechnology, 2009, 9, 5958-5965.	0.9	10
68	Extra low friction coefficient caused by the formation of a solid-like layer: A new lubrication mechanism found through molecular simulation of the lubrication of MoS2 nanoslits. Chinese Journal of Chemical Engineering, 2018, 26, 2412-2419.	3.5	10
69	Controlling friction in Ionic Liquid/Glycerol Aqueous Solution lubricated contacts by adjusting CO2 and water content. Tribology International, 2021, 161, 107070.	5.9	10
70	Micropitting performance of glycerol-based lubricants under rolling-sliding contact conditions. Tribology International, 2022, 167, 107348.	5.9	10
71	Durable polytetrafluoroethylene composites in harsh environments: Tribology and corrosion investigation. Journal of Applied Polymer Science, 2012, 124, 4307-4314.	2.6	9
72	Traction formula for rolling-sliding contacts in consideration of roughness under low slide to roll ratios. Tribology International, 2016, 104, 263-271.	5.9	9

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73	Effects of ionic hydration and hydrogen bonding on flow resistance of ionic aqueous solutions confined in molybdenum disulfide nanoslits: Insights from molecular dynamics simulations. Fluid Phase Equilibria, 2019, 489, 23-29.	2.5	9
74	A Complementarity Problemâ€“Based Solution Procedure for 2D Steady-State Rolling Contacts with Dry Friction. Tribology Transactions, 2016, 59, 1031-1038.	2.0	8
75	Linear Complementarity Framework for 3D Steady-State Rolling Contact Problems Including Creepages with Isotropic and Anisotropic Friction for Circular Hertzian Contact. Tribology Transactions, 2017, 60, 832-844.	2.0	8
76	Single-Cell Oils from Oleaginous Microorganisms as Green Bio-Lubricants: Studies on Their Tribological Performance. Energies, 2021, 14, 6685.	3.1	8
77	Synthesis of Epoxidatied Castor Oil and Its Effect on the Properties of Waterborne Polyurethane. Procedia Engineering, 2011, 18, 31-36.	1.2	7
78	Non-corrosive Green Lubricant With Dissolved Lignin in Ionic Liquids Behave as Ideal Lubricants for Steel-DLC Applications. Frontiers in Chemistry, 2019, 7, 857.	3.6	7
79	Hollow IF-MoS2/r-GO Nanocomposite Filled Polyimide Coating with Improved Mechanical, Thermal and Tribological Properties. Coatings, 2021, 11, 25.	2.6	7
80	Effect of roughness on the running-in behavior and tribofilm formation of carbon fiber reinforced PTFE composite in trace moisture environment. Wear, 2022, 500-501, 204367.	3.1	7
81	Friction and Wear of Self-Lubricating Materials for Hydropower Applications under Different Lubricating Conditions. Lubricants, 2017, 5, 24.	2.9	6
82	A smart friction control strategy enabled by CO2 absorption and desorption. Scientific Reports, 2019, 9, 13262.	3.3	6
83	The Tribological Performance of Metal-/Resin-Impregnated Graphite under Harsh Condition. Lubricants, 2022, 10, 2.	2.9	6
84	Using Green, Economical, Efficient Two-Dimensional (2D) Talc Nanosheets as Lubricant Additives under Harsh Conditions. Nanomaterials, 2022, 12, 1666.	4.1	6
85	Tribological behavior of poly(ether ether ketone) composites filled with potassium titanate whiskers sliding in different media. Journal of Applied Polymer Science, 2010, 115, 1935-1941.	2.6	5
86	Application of an inclined, spinning ball-on-rotating disc apparatus to simulate railway wheel and rail contact problems. Wear, 2017, 374-375, 46-53.	3.1	5
87	Poly(alkylimidazolium bis(trifluoromethylsulfonyl)imide)â€Based Polymerized Ionic Liquids: A Potential Highâ€Performance Lubricating Grease. Advanced Materials Interfaces, 2019, 6, 1801796.	3.7	5
88	Synthesis of novel CuO@Graphene nanocomposites for lubrication application via a convenient and economical method. Wear, 2022, 498-499, 204323.	3.1	5
89	Fat mimicking compounds as grease thickeners in Poly(ethylene glycol)/water: Adopting the solution from history. Journal of Colloid and Interface Science, 2020, 578, 619-628.	9.4	4
90	Tribological behaviour of UHMWPE composites lubricated by polyvinylpyrrolidoneâ€modified water. Lubrication Science, 0, , .	2.1	3

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91	Atomistic insight into the lubrication of glycerol aqueous solution: The role of the solid interfaceâ€induced microstructure of fluid molecules. AIChE Journal, 0, , .	3.6	3