

Liwen Mu

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

85
papers

1,870
citations

26
h-index

40
g-index

86
ext. papers

2,307
ext. citations

6.9
avg, IF

5.12
L-index

#	Paper	IF	Citations
85	Machine learning prediction of bio-oil characteristics quantitatively relating to biomass compositions and pyrolysis conditions. <i>Fuel</i> , 2022 , 312, 122812	7.1	6
84	Advanced Material-oriented Biomass Precise Reconstruction: A Review on Porous Carbon with Inherited Natural Structure and Created Artificial Structure by Post-treatment.. <i>Macromolecular Bioscience</i> , 2022 , e2100479	5.5	0
83	CO ₂ -negative biomass conversion: An economic route with co-production of green hydrogen and highly porous carbon. <i>Applied Energy</i> , 2022 , 311, 118685	10.7	1
82	Biomass-derived mesoporous and super-hydrophilic carbon manufactured by cycling-pressure-switching air activation process towards ultrahigh adsorption efficiency of tetracycline. <i>Sustainable Materials and Technologies</i> , 2022 , e00430	5.3	
81	A negative-carbon footprint process with mixed biomass feedstock maximizes conversion efficiency, product value and CO mitigation.. <i>Bioresource Technology</i> , 2022 , 351, 127004	11	0
80	A facile and green strategy to synthesize N/P co-doped bio-char as VOCs adsorbent: Through efficient biogas slurry treatment and struvite transform. <i>Fuel</i> , 2022 , 322, 124156	7.1	0
79	Valorization of industrial lignin as lubricating additives by C—C Bond Cleavage and doping heteroelement-rich groups. <i>Biomass and Bioenergy</i> , 2022 , 161, 106470	5.3	0
78	Synthesis of biogas-residue-based mesoporous carbons via one-step template-free method for organic and inorganic pollutants removal. <i>Fuel</i> , 2021 , 311, 122516	7.1	1
77	Single-Cell Oils from Oleaginous Microorganisms as Green Bio-Lubricants: Studies on Their Tribological Performance. <i>Energies</i> , 2021 , 14, 6685	3.1	2
76	Hollow IF-MoS ₂ /r-GO Nanocomposite Filled Polyimide Coating with Improved Mechanical, Thermal and Tribological Properties. <i>Coatings</i> , 2021 , 11, 25	2.9	2
75	Surfactant assisted and in situ formed micro liquid metal as excellent lubricant additive in polyimide coating. <i>Tribology International</i> , 2021 , 159, 106953	4.9	2
74	Techno-economic analysis of biomass processing with dual outputs of energy and activated carbon. <i>Bioresource Technology</i> , 2021 , 319, 124108	11	16
73	Cycling pressure-switching process enriches micropores in activated carbon by accelerating reactive gas internal diffusion in porous channels. <i>Sustainable Materials and Technologies</i> , 2021 , 28, e00248	5.3	1
72	Sorption mechanism of organic dyes on a novel self-nitrogen-doped porous graphite biochar: Coupling DFT calculations with experiments. <i>Chemical Engineering Science</i> , 2021 , 242, 116739	4.4	8
71	Fat mimicking compounds as grease thickeners in Poly(ethylene glycol)/water: Adopting the solution from history. <i>Journal of Colloid and Interface Science</i> , 2020 , 578, 619-628	9.3	1
70	Stable Dispersed Zeolitic Imidazolate Framework/Graphene Oxide Nanocomposites in Ionic Liquids Resulting in High Lubricating Performance. <i>Advanced Materials Interfaces</i> , 2020 , 7, 1902194	4.6	3
69	Tribological properties of polyimide coating filled with carbon nanotube at elevated temperatures. <i>Polymer Composites</i> , 2020 , 41, 2652-2661	3	10

68	Tuning nitrogen species on natural biomass derived porous carbon for efficient acetone adsorption. <i>Materials Chemistry and Physics</i> , 2020 , 253, 123338	4.4	7
67	Holistically Engineered Polymer-Polymer and Polymer-Ion Interactions in Biocompatible Polyvinyl Alcohol Blends for High-Performance Triboelectric Devices in Self-Powered Wearable Cardiovascular Monitorings. <i>Advanced Materials</i> , 2020 , 32, e2002878	24	33
66	Tribological properties of polyimide-graphene composite coatings at elevated temperatures. <i>Progress in Organic Coatings</i> , 2020 , 142, 105602	4.8	11
65	Critical Role of Carbonized Cellulose in the Evolution of Highly Porous Biocarbon: Seeing the Structural and Compositional Changes of Spent Mushroom Substrate by Deconvoluted Thermogravimetric Analysis. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 22541-22548	3.9	3
64	Novel Biorefinery Approach Aimed at Vegetarians Reduces the Dependency on Marine Fish Stocks for Obtaining Squalene and Docosahexaenoic Acid. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 8803-8813	8.3	9
63	Polyelectrolyte cellulose gel with PEG/water: Toward fully green lubricating grease. <i>Carbohydrate Polymers</i> , 2020 , 230, 115670	10.3	6
62	Two important factors of selecting lignin as efficient lubricating additives in poly (ethylene glycol): Hydrogen bond and molecular weight. <i>International Journal of Biological Macromolecules</i> , 2019 , 129, 564-570	7.9	19
61	Effect of the Composition of Biomass on the Quality of Syngas Produced from Thermochemical Conversion Based on Thermochemical Data Prediction. <i>Energy & Fuels</i> , 2019 , 33, 5253-5262	4.1	7
60	Structural strategies to design bio-ionic liquid: Tuning molecular interaction with lignin for enhanced lubrication. <i>Journal of Molecular Liquids</i> , 2019 , 280, 49-57	6	8
59	Carbon nanofiber reinforced Co-continuous HDPE/PMMA composites: Exploring the role of viscosity ratio on filler distribution and electrical/thermal properties. <i>Composites Science and Technology</i> , 2019 , 184, 107859	8.6	16
58	Poly(alkylimidazolium bis(trifluoromethylsulfonyl)imide)-Based Polymerized Ionic Liquids: A Potential High-Performance Lubricating Grease. <i>Advanced Materials Interfaces</i> , 2019 , 6, 1801796	4.6	3
57	Thermal Conduction in Polymer Composites 2019 , 77-110		5
56	Synthesis of hollow fullerene-like molybdenum disulfide/reduced graphene oxide nanocomposites with excellent lubricating properties. <i>Carbon</i> , 2018 , 134, 423-430	10.4	16
55	Turning the solubility and lubricity of ionic liquids by absorbing CO ₂ . <i>Tribology International</i> , 2018 , 121, 223-230	4.9	19
54	A biomimetic spherical cactus superhydrophobic coating with durable and multiple anti-corrosion effects. <i>Chemical Engineering Journal</i> , 2018 , 338, 670-679	14.7	58
53	The stiffness-thermal conduction relationship at the composite interface: the effect of particle alignment on the long-range confinement of polymer chains monitored by scanning thermal microscopy. <i>Nanoscale</i> , 2018 , 10, 1695-1703	7.7	33
52	Localizing microwave heat by surface polarization of titanate nanostructures for enhanced catalytic reaction efficiency. <i>Applied Catalysis B: Environmental</i> , 2018 , 227, 266-275	21.8	13
51	Thermal transport in polymeric materials and across composite interfaces. <i>Applied Materials Today</i> , 2018 , 12, 92-130	6.6	177

50	Concanavalin A induced orientation immobilization of Nuclease P1: The effect of lectin agglutination. <i>Process Biochemistry</i> , 2018 , 64, 160-169	4.8	11
49	Structurally tuning microwave absorption of core/shell structured CNT/polyaniline catalysts for energy efficient saccharide-HMF conversion. <i>Applied Catalysis B: Environmental</i> , 2018 , 220, 581-588	21.8	38
48	Lignin from Hardwood and Softwood Biomass as a Lubricating Additive to Ethylene Glycol. <i>Molecules</i> , 2018 , 23,	4.8	29
47	Organosilane grafted silica: Quantitative correlation of microscopic surface characters and macroscopic surface properties. <i>Applied Surface Science</i> , 2017 , 399, 565-572	6.7	15
46	Molecular Origin of Efficient Phonon Transfer in Modulated Polymer Blends: Effect of Hydrogen Bonding on Polymer Coil Size and Assembled Microstructure. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 14204-14212	3.8	37
45	Developing heat conduction pathways through short polymer chains in a hydrogen bonded polymer system. <i>Composites Science and Technology</i> , 2017 , 148, 97-105	8.6	32
44	Engineering Hydrogen Bonding Interaction and Charge Separation in Bio-Polymers for Green Lubrication. <i>Journal of Physical Chemistry B</i> , 2017 , 121, 5669-5678	3.4	14
43	Carbon coated Li ₄ Ti ₅ O ₁₂ fibers: Relying on the lithium diffusivity in TiO ₂ B crystal structure for high rate lithium battery. <i>Journal of Alloys and Compounds</i> , 2017 , 721, 545-553	5.7	6
42	Enhancing Energy Efficiency in Saccharide-HMF Conversion with Core/shell Structured Microwave Responsive Catalysts. <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 4352-4358	8.3	23
41	Grafting heteroelement-rich groups on graphene oxide: Tuning polarity and molecular interaction with bio-ionic liquid for enhanced lubrication. <i>Journal of Colloid and Interface Science</i> , 2017 , 498, 47-54	9.3	17
40	Pore size dependent molecular adsorption of cationic dye in biomass derived hierarchically porous carbon. <i>Journal of Environmental Management</i> , 2017 , 196, 168-177	7.9	17
39	Expedited Phonon Transfer in Interfacially Constrained Polymer Chain along Self-Organized Amino Acid Crystals. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 12138-12145	9.5	36
38	Excellent performance of Pt-C/TiO ₂ for methanol oxidation: Contribution of mesopores and partially coated carbon. <i>Applied Surface Science</i> , 2017 , 426, 890-896	6.7	26
37	Moisture driven thermal conduction in polymer and polymer blends. <i>Composites Science and Technology</i> , 2017 , 151, 115-123	8.6	30
36	Cotton fabric derived hierarchically porous carbon and nitrogen doping for sustainable capacitor electrode. <i>Carbon</i> , 2017 , 111, 839-848	10.4	113
35	Elastohydrodynamic Performance of a Bio-Based, Non-Corrosive Ionic Liquid. <i>Applied Sciences (Switzerland)</i> , 2017 , 7, 996	2.6	16
34	Molecular Transformation, Diffusion, and Assembling into Three-Dimensional Freestanding Tube Arrays via a Triphasic Reaction. <i>Langmuir</i> , 2016 , 32, 11525-11531	4	
33	Enriching Heteroelements in Lignin as Lubricating Additives for Bioionic Liquids. <i>ACS Sustainable Chemistry and Engineering</i> , 2016 , 4, 3877-3887	8.3	30

32	Confined molecular motion across liquid/liquid interfaces in a triphasic reaction towards free-standing conductive polymer tube arrays. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 6290-6294	13	7
31	Tribological behaviors of carbon series additions reinforced CF/PTFE composites at high speed. <i>Journal of Applied Polymer Science</i> , 2016 , 133, n/a-n/a	2.9	10
30	Green processing of plant biomass into mesoporous carbon as catalyst support. <i>Chemical Engineering Journal</i> , 2016 , 295, 301-308	14.7	41
29	Superamphiphobicity and electroactivity enabled dual physical/chemical protections in novel anticorrosive nanocomposite coatings. <i>Polymer</i> , 2016 , 85, 37-46	3.9	34
28	Ionic Grease Lubricants: Protic [Triethanolamine][Oleic Acid] and Aprotic [Choline][Oleic Acid]. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 4977-84	9.5	37
27	Heterogeneous nucleation/growth of silver nanoparticles onto oxygenated mesoporous carbon: Alcohol effect and catalytic property. <i>Catalysis Communications</i> , 2016 , 77, 65-69	3.2	8
26	Lignin in Ethylene Glycol and Poly(ethylene glycol): Fortified Lubricants with Internal Hydrogen Bonding. <i>ACS Sustainable Chemistry and Engineering</i> , 2016 , 4, 1840-1849	8.3	39
25	Facile synthesis of mesoporous carbon nanocomposites from natural biomass for efficient dye adsorption and selective heavy metal removal. <i>RSC Advances</i> , 2016 , 6, 2259-2269	3.7	57
24	In-situ reduction of Ag nanoparticles on oxygenated mesoporous carbon fabric: Exceptional catalyst for nitroaromatics reduction. <i>Applied Catalysis B: Environmental</i> , 2016 , 182, 306-315	21.8	63
23	Influences of geometrical topography and surface chemistry on the stable immobilization of adenosine deaminase on mesoporous TiO ₂ . <i>Chemical Engineering Science</i> , 2016 , 139, 142-151	4.4	18
22	High load capacity with ionic liquid-lubricated tribological system. <i>Tribology International</i> , 2016 , 94, 315-322	1.9	12
21	Durable Self-Healing Superhydrophobic Coating with Biomimic Chloroplast Analogous Structure. <i>Advanced Materials Interfaces</i> , 2016 , 3, 1600040	4.6	19
20	Superamphiphobic and Electroactive Nanocomposite toward Self-Cleaning, Antiwear, and Anticorrosion Coatings. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 12481-93	9.5	112
19	Paving the Thermal Highway with Self-Organized Nanocrystals in Transparent Polymer Composites. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 29080-29087	9.5	31
18	Boosting Energy Efficiency of Nickel Cobaltite via Interfacial Engineering in Hierarchical Supercapacitor Electrode. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 23377-23388	3.8	13
17	[N-Methyl-2-pyrrolidone][C1-C4 carboxylic acid]: a novel solvent system with exceptional lignin solubility. <i>Chemical Communications</i> , 2015 , 51, 13554-7	5.8	30
16	Non-corrosive green lubricants: strengthened lignin[Choline][amino acid] ionic liquids interaction via reciprocal hydrogen bonding. <i>RSC Advances</i> , 2015 , 5, 66067-66072	3.7	55
15	Superhydrophobic polyaniline hollow spheres with mesoporous brain-like convex-fold shell textures. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 19299-19303	13	23

14	Unveiling Mesopore Evolution in Carbonized Wood: Interfacial Separation, Migration, and Degradation of Lignin Phase. <i>ACS Sustainable Chemistry and Engineering</i> , 2015 , 3, 2489-2495	8.3	17
13	Self-Lubricating Polytetrafluoroethylene/Polyimide Blends Reinforced with Zinc Oxide Nanoparticles. <i>Journal of Nanomaterials</i> , 2015 , 2015, 1-8	3.2	14
12	TiO ₂ nanofibers heterogeneously wrapped with reduced graphene oxide as efficient Pt electrocatalyst supports for methanol oxidation. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 3679-3688 ³⁹	6.7	39
11	Interface-Strengthened Polyimide/Carbon Nanofibers Nanocomposites with Superior Mechanical and Tribological Properties. <i>Macromolecular Chemistry and Physics</i> , 2014 , 215, 1407-1414	2.6	13
10	Friction and Wear Behavior of CF/PTFE Composites Lubricated by Choline Chloride Ionic Liquids. <i>Tribology Letters</i> , 2013 , 49, 413-420	2.8	22
9	The effect of thermal conductivity and friction coefficient on the contact temperature of polyimide composites: Experimental and finite element simulation. <i>Tribology International</i> , 2012 , 53, 45-52	4.9	42
8	A study of tribological and mechanical properties of PTFE composites filled with surface treated K ₂ Ti ₆ O ₁₃ whisker. <i>Journal of Applied Polymer Science</i> , 2012 , 124, 1456-1463	2.9	8
7	Durable polytetrafluoroethylene composites in harsh environments: Tribology and corrosion investigation. <i>Journal of Applied Polymer Science</i> , 2012 , 124, 4307-4314	2.9	9
6	Tribological behavior of carbon nanotube and polytetrafluoroethylene filled polyimide composites under different lubricated conditions. <i>Journal of Applied Polymer Science</i> , 2011 , 121, 1574-1578	2.9	20
5	The tribological behavior of nanometer and micrometer TiO ₂ particle-filled polytetrafluoroethylene/polyimide. <i>Materials & Design</i> , 2011 , 32, 964-970		46
4	Friction and Wear Behaviors of Solid Lubricants/Polyimide Composites in Liquid Mediums. <i>Materials Science Forum</i> , 2010 , 654-656, 2763-2766	0.4	7
3	Comparative Study of Tribological Properties of Different Fibers Reinforced PTFE/PEEK Composites at Elevated Temperatures. <i>Tribology Transactions</i> , 2010 , 53, 189-194	1.8	35
2	Naturally dispersed ash components in bio-carbon composites: integrated ammonia nitrogen removal and specific surface area augment. <i>Biomass Conversion and Biorefinery</i> , 1	2.3	1
1	Versatile Ionic Gel Driven by Dual Hydrogen Bond Networks: Toward Advanced Lubrication and Self-Healing. <i>ACS Applied Polymer Materials</i> ,	4.3	2