

Lei Liu

List of Publications by Year in descending order

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76
papers

2,419
citations

185998

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223531

46
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all docs

76
docs citations

76
times ranked

2718
citing authors

#	ARTICLE	IF	CITATIONS
1	Hierarchical Carbon Fiber@MXene@MoS ₂ Core-shell Synergistic Microstructure for Tunable and Efficient Microwave Absorption. <i>Advanced Functional Materials</i> , 2020, 30, 2002595.	7.8	311
2	Highly Sensitive and Selective DNA-Based Detection of Mercury(II) with λ -Hemolysin Nanopore. <i>Journal of the American Chemical Society</i> , 2011, 133, 18312-18317.	6.6	203
3	Plasma Modified MoS ₂ Nanoflakes for Surface Enhanced Raman Scattering. <i>Small</i> , 2014, 10, 1090-1095.	5.2	129
4	A novel label-free strategy for the ultrasensitive miRNA-182 detection based on MoS ₂ /Ti ₃ C ₂ nanohybrids. <i>Biosensors and Bioelectronics</i> , 2019, 137, 45-51.	5.3	79
5	MoS ₂ /MXene Aerogel with Conformal Heterogeneous Interfaces Tailored by Atomic Layer Deposition for Tunable Microwave Absorption. <i>Advanced Science</i> , 2022, 9, e2101988.	5.6	76
6	Combustion and thermal properties of OctaTMA-POSS/PS composites. <i>Journal of Materials Science</i> , 2007, 42, 4325-4333.	1.7	59
7	Tribological characteristics and advanced processing methods of textured surfaces: a review. <i>International Journal of Advanced Manufacturing Technology</i> , 2021, 114, 1241-1277.	1.5	58
8	Fabrication and characterization of micro-channels on Al ₂ O ₃ /TiC ceramic produced by nanosecond laser. <i>Ceramics International</i> , 2018, 44, 23035-23044.	2.3	56
9	A Novel Biosensor Based on Molybdenum Disulfide (MoS ₂) Modified Porous Anodic Aluminum Oxide Nanochannels for Ultrasensitive microRNA-155 Detection. <i>Small</i> , 2020, 16, e2001223.	5.2	52
10	Ultrasensitive SERS Detection of Cancer-Related miRNA-182 by MXene/MoS ₂ @AuNPs with Controllable Morphology and Optimized Self-Internal Standards. <i>Advanced Optical Materials</i> , 2020, 8, 2001214.	3.6	51
11	Advances in Laser Drilling of Structural Ceramics. <i>Nanomaterials</i> , 2022, 12, 230.	1.9	48
12	Ultrasensitive detection of miRNA-155 based on controlled fabrication of AuNPs@MoS ₂ nanostructures by atomic layer deposition. <i>Biosensors and Bioelectronics</i> , 2019, 144, 111660.	5.3	47
13	Drastically Reduced Ion Mobility in a Nanopore Due to Enhanced Pairing and Collisions between Dehydrated Ions. <i>Journal of the American Chemical Society</i> , 2019, 141, 4264-4272.	6.6	46
14	CuS@defect-rich MoS ₂ core-shell structure for enhanced hydrogen evolution. <i>Journal of Colloid and Interface Science</i> , 2020, 564, 77-87.	5.0	44
15	Synergistic effect of surface textures and DLC coatings for enhancing friction and wear performances of Si ₃ N ₄ /TiC ceramic. <i>Ceramics International</i> , 2022, 48, 514-524.	2.3	44
16	Fabrication of coral-like MoS ₂ and its application in improving the tribological performance of liquid paraffin. <i>Tribology International</i> , 2016, 104, 303-308.	3.0	41
17	Formation of bionic surface textures composed by micro-channels using nanosecond laser on Si ₃ N ₄ -based ceramics. <i>Ceramics International</i> , 2021, 47, 12768-12779.	2.3	41
18	Layer-controlled precise fabrication of ultrathin MoS ₂ films by atomic layer deposition. <i>Nanotechnology</i> , 2017, 28, 195605.	1.3	39

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19	MoS ₂ hollow microspheres used as a green lubricating additive for liquid paraffin. Tribology International, 2017, 114, 315-321.	3.0	38
20	Nanotribological characterization of graphene on soft elastic substrate. Carbon, 2017, 124, 541-546.	5.4	38
21	Micro-channels machining on polycrystalline diamond by nanosecond laser. Optics and Laser Technology, 2018, 108, 333-345.	2.2	38
22	Self-assembly of zinc hydroxystannate on amorphous hydrous TiO ₂ solid sphere for enhancing fire safety of epoxy resin. Journal of Hazardous Materials, 2017, 340, 263-271.	6.5	37
23	Friction-Induced Enhancements for Photocatalytic Degradation of MoS ₂ @Ti ₃ C ₂ Nanohybrid. Industrial & Engineering Chemistry Research, 2019, 58, 18141-18148.	1.8	34
24	Thermal oxidative degradation kinetics of novel intumescent flame-retardant polypropylene composites. Journal of Thermal Analysis and Calorimetry, 2015, 120, 1183-1191.	2.0	33
25	Dependence of the friction strengthening of graphene on velocity. Nanoscale, 2018, 10, 1855-1864.	2.8	31
26	LIPSS combined with ALD MoS ₂ nano-coatings for enhancing surface friction and hydrophobic performances. Surface and Coatings Technology, 2020, 385, 125396.	2.2	31
27	Nanopore-Based Strategy for Sequential Separation of Heavy-Metal Ions in Water. Environmental Science & Technology, 2018, 52, 5884-5891.	4.6	30
28	Pt Atom on the Wall of Atomic Layer Deposition (ALD)-Made MoS ₂ Nanotubes for Efficient Hydrogen Evolution. Small, 2022, 18, e2105129.	5.2	29
29	A novel 1D/2D interpenetrating network architecture of MXene/cellulose composite microfiber and graphene for broadband microwave absorption. Chemical Engineering Journal, 2022, 439, 135734.	6.6	29
30	Preparation and characterization of molybdenum disulfide films obtained by one-step atomic layer deposition method. Thin Solid Films, 2017, 624, 101-105.	0.8	28
31	Controllable Nanotribological Properties of Graphene Nanosheets. Scientific Reports, 2017, 7, 41891.	1.6	27
32	A Green Design for Lubrication: Multifunctional System Containing Fe ₃ O ₄ @MoS ₂ Nanohybrid. ACS Sustainable Chemistry and Engineering, 2018, 6, 7372-7379.	3.2	27
33	Trickle Flow Aided Atomic Layer Deposition (ALD) Strategy for Ultrathin Molybdenum Disulfide (MoS ₂) Synthesis. ACS Applied Materials & Interfaces, 2019, 11, 36270-36277.	4.0	26
34	Recent progress in atomic layer deposition of molybdenum disulfide: a mini review. Science China Materials, 2019, 62, 913-924.	3.5	24
35	Ultralow-Voltage-Drivable Artificial Muscles Based on a 3D Structure MXene-PEDOT:PSS/AgNWs Electrode. ACS Applied Materials & Interfaces, 2022, 14, 18150-18158.	4.0	24
36	Numerical investigation of the performance of micro-textured cutting tools in cutting of Ti-6Al-4V alloys. International Journal of Advanced Manufacturing Technology, 2020, 108, 463-474.	1.5	23

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37	Preparation and tribological properties of organically modified graphite oxide in liquid paraffin at ultra-low concentrations. RSC Advances, 2015, 5, 90525-90530.	1.7	22
38	Modulated electrochemical oxygen evolution catalyzed by MoS ₂ nanoflakes from atomic layer deposition. Nanotechnology, 2019, 30, 095402.	1.3	22
39	MoSe ₂ /CdSe Heterojunction Destruction by Cation Exchange for Photoelectrochemical Immunoassays with a Controlled-Release Strategy. Analytical Chemistry, 2021, 93, 10712-10718.	3.2	22
40	A simple strategy for the detection of Cu(II), Cd(II) and Pb(II) in water by a voltammetric sensor on a TC4A modified electrode. New Journal of Chemistry, 2019, 43, 1544-1550.	1.4	20
41	Ultrasensitive photoelectrochemical detection of cancer-related miRNA-141 by carrier recombination inhibition in hierarchical Ti3C2@ReS2. Sensors and Actuators B: Chemical, 2021, 331, 129470.	4.0	20
42	Size-dependent piezoelectricity of molybdenum disulfide (MoS ₂) films obtained by atomic layer deposition (ALD). Applied Physics Letters, 2017, 111, .	1.5	19
43	MoS ₂ with Controlled Thickness for Electrocatalytic Hydrogen Evolution. Nanoscale Research Letters, 2021, 16, 137.	3.1	17
44	Synthesis and characterization of AB block copolymers based on polyhedral oligomeric silsesquioxane. Journal of Polymer Research, 2010, 17, 19-23.	1.2	16
45	Detection of short single-strand DNA homopolymers with imidazole- π - π interactions. S^3N_4 nanopores. Physical Review E, 2015, 92, 022719.	0.8	16
46	MoS ₂ solid-lubricating film fabricated by atomic layer deposition on Si substrate. AIP Advances, 2018, 8, .	0.6	16
47	Nanotribological Properties of ALD-Made Ultrathin MoS ₂ Influenced by Film Thickness and Scanning Velocity. Langmuir, 2019, 35, 3651-3657.	1.6	16
48	Nanotribological properties of 2-D MoS ₂ on different substrates made by atomic layer deposition (ALD). Applied Surface Science, 2020, 502, 144402.	3.1	15
49	Enhanced Lubrication and Photocatalytic Degradation of Liquid Paraffin by Hollow MoS ₂ Microspheres. ACS Omega, 2018, 3, 3120-3128.	1.6	14
50	Assessment machining of micro-channel textures on PCD by laser-induced plasma and ultra-short pulsed laser ablation. Optics and Laser Technology, 2020, 125, 106057.	2.2	14
51	Lamellar hybrid from octa(β -chloroaminopropyl) polyhedral oligomeric silsesquioxanes and anionic surfactant by ion-exchange reaction. Materials Letters, 2007, 61, 1077-1081.	1.3	13
52	Polystyrene nanocomposites with improved combustion properties by using TMA-POSS and organic clay. Journal of Thermal Analysis and Calorimetry, 2016, 124, 743-749.	2.0	13
53	Investigation on pyrolysis of intumescent flame-retardant polypropylene (PP) composites based on synchrotron vacuum ultraviolet photoionization combined with molecular-beam mass spectrometry. Journal of Thermal Analysis and Calorimetry, 2017, 130, 1003-1009.	2.0	13
54	Numerical analyses of rectangular micro-textures in hydrodynamic lubrication regime for sliding contacts. Meccanica, 2021, 56, 365-382.	1.2	13

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55	Enhanced lubrication and photocatalytic degradation of liquid paraffin by coral-like MoS ₂ . <i>New Journal of Chemistry</i> , 2017, 41, 7674-7680.	1.4	12
56	Mesoporous hybrid from anionic polyhedral oligomeric silsesquioxanes (POSS) and cationic surfactant by hydrothermal approach. <i>Microporous and Mesoporous Materials</i> , 2010, 132, 567-571.	2.2	11
57	Nanocrystalline NiSe ₂ /MoS ₂ heterostructures for electrochemical hydrogen evolution reaction. <i>Nanotechnology</i> , 2021, 32, 175602.	1.3	11
58	Synthesis and characterization of ion-exchangeable layered Octabenzenesulphonate Polyhedral Oligomeric Silsesquioxanes modified by surfactant. <i>Materials Letters</i> , 2006, 60, 1823-1827.	1.3	10
59	Novel PS Composites by Using Artificial Lamellar Hybrid from Octa(1 ³ -chloroaminopropyl) POSS and Surfactant. <i>Polymer-Plastics Technology and Engineering</i> , 2011, 50, 73-79.	1.9	10
60	Ultrathin Quasibinary Heterojunctioned ReS ₂ /MoS ₂ Film with Controlled Adhesion from a Bimetallic Co-Feeding Atomic Layer Deposition. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 43311-43319.	4.0	10
61	Pressure-assisted synthesis of a polyaniline-graphite oxide (PANI-GO) hybrid and its friction reducing behavior in liquid paraffin (LP). <i>New Journal of Chemistry</i> , 2018, 42, 936-942.	1.4	9
62	Preparation and Characterizations of Novel PS Composites Containing OctaTMA-POSS-based Lamellar Hybrids. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2011, 60, 947-958.	1.8	8
63	Ultrathin molybdenum disulfide (MoS ₂) film obtained in atomic layer deposition: A mini-review. <i>Science China Technological Sciences</i> , 2021, 64, 2347-2359.	2.0	8
64	Plasma-assisted friction control of 2D MoS ₂ made by atomic layer deposition. <i>Nanotechnology</i> , 2020, 31, 395711.	1.3	7
65	Atomic Layer Deposition-Made MoS ₂ -ReS ₂ Nanotubes with Cylindrical Wall Heterojunctions for Ultrasensitive MiRNA-155 Detection. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 10081-10091.	4.0	7
66	Voltage-driven translocation behaviors of IgG molecule through nanopore arrays. <i>Nanoscale Research Letters</i> , 2013, 8, 229.	3.1	6
67	Direct fabrication of two-dimensional ReS ₂ on SiO ₂ /Si substrate by a wide-temperature-range atomic layer deposition. <i>Nanotechnology</i> , 2020, 31, 055602.	1.3	6
68	Synergistic lubrication of a porous MoS ₂ -POSS nanohybrid. <i>RSC Advances</i> , 2020, 10, 20579-20587.	1.7	6
69	MoS ₂ -ReS ₂ Heterojunctions from a Bimetallic Co-chamber Feeding Atomic Layer Deposition for Ultrasensitive MiRNA-21 Detection. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 29074-29084.	4.0	5
70	Detecting a single molecule using a micropore-nanopore hybrid chip. <i>Nanoscale Research Letters</i> , 2013, 8, 498.	3.1	4
71	Thermal decomposition of polypropylene by tunable synchrotron vacuum ultraviolet photoionization mass spectrometry. <i>Journal of Thermal Analysis and Calorimetry</i> , 2014, 118, 295-298.	2.0	4
72	Fabrication and properties of micro-additive manufactured Ni-based composite coatings by short-pulsed laser. <i>Optics and Laser Technology</i> , 2022, 150, 107973.	2.2	4

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73	Experimental and theoretical investigations on temperature modulated translocation of IgG molecules through nanopore arrays. <i>Analyst</i> , 2015, 140, 4895-4902.	1.7	3
74	Nanometer-Thick MoS ₂ Films Made by High-Temperature Atomic Layer Deposition as Coatings for Friction Reduction. <i>ACS Applied Nano Materials</i> , 2022, 5, 5652-5659.	2.4	3
75	Ultrasensitive Surface-Enhanced Raman Scattering (SERS) Detection For miRNA-182 Based on CdS/MoS ₂ @AuNPs Fabricated by Atomic Layer Deposition (ALD). <i>Advanced Materials Interfaces</i> , 2022, 9, .	1.9	2
76	Pressure-assisted synthesis and morphology control of polyaniline. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2016, 65, 310-314.	1.8	1