

Tobin Filleter

List of Publications by Year in descending order

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103
papers

5,994
citations

87723

38
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74018

75
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106
all docs

106
docs citations

106
times ranked

8178
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrically and thermally graded microcellular polymer/graphene nanoplatelet composite foams and their EMI shielding properties. Carbon, 2022, 187, 153-164.	5.4	42
2	Influence of different design parameters on a coplanar capacitive sensor performance. NDT and E International, 2022, 126, 102588.	1.7	12
3	High Performance Space Lubrication of MoS ₂ with Tantalum. Advanced Functional Materials, 2022, 32, .	7.8	18
4	Mechanical Size Effect of Freestanding Nanoconfined Polymer Films. Macromolecules, 2022, 55, 1248-1259.	2.2	18
5	Multi-Electrode Coplanar Capacitive Probe With Various Arrangements for Non-Destructive Testing of Materials. IEEE Sensors Journal, 2022, 22, 8134-8146.	2.4	5
6	Enhancement of Defect Characterization With AC Magnetic Flux Leakage: Far-Side Defect Shape Estimation and Sensor Lift-Off Compensation. IEEE Transactions on Magnetics, 2022, 58, 1-11.	1.2	2
7	Friction of Ti ₃ C ₂ T _x MXenes. Nano Letters, 2022, 22, 3356-3363.	4.5	46
8	Quantum-size-tuned heterostructures enable efficient and stable inverted perovskite solar cells. Nature Photonics, 2022, 16, 352-358.	15.6	233
9	Sectorization of Macromolecular Single Crystals Unveiled by Probing Shear Anisotropy. ACS Macro Letters, 2022, 11, 53-59.	2.3	0
10	High Performance Space Lubrication of MoS ₂ with Tantalum (Adv. Funct. Mater. 20/2022). Advanced Functional Materials, 2022, 32, .	7.8	0
11	A Carbon-Based Biosensing Platform for Simultaneously Measuring the Contraction and Electrophysiology of iPSC-Cardiomyocyte Monolayers. ACS Nano, 2022, 16, 11278-11290.	7.3	15
12	Mechanical reliability of monolayer MoS ₂ and WSe ₂ . Matter, 2022, 5, 2975-2989.	5.0	5
13	Numerical Simulation and Experimental Study of Capacitive Imaging Technique as a Nondestructive Testing Method. Applied Sciences (Switzerland), 2021, 11, 3804.	1.3	4
14	Experimental Analysis of Friction and Wear of Self-Lubricating Composites Used for Dry Lubrication of Ball Bearing for Space Applications. Lubricants, 2021, 9, 38.	1.2	8
15	Clean manufacturing of nanocellulose-reinforced hydrophobic flexible substrates. Journal of Cleaner Production, 2021, 293, 126141.	4.6	2
16	Interfacial Interactions and Tribological Behavior of Metal-Oxide/2D-Material Contacts. Tribology Letters, 2021, 69, 1.	1.2	8
17	Multication perovskite 2D/3D interfaces form via progressive dimensional reduction. Nature Communications, 2021, 12, 3472.	5.8	89
18	Damage-tolerant 3D-printed ceramics via conformal coating. Science Advances, 2021, 7, .	4.7	32

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19	Enhanced electromagnetic wave absorption performance of polymer/SiC-nanowire/MXene (Ti3C2Tx) composites. Carbon, 2021, 179, 408-416.	5.4	66
20	Fatigue resistance of atomically thin graphene oxide. Carbon, 2021, 183, 780-788.	5.4	14
21	Role of chemical vs. physical interfacial interaction and adsorbed water on the tribology of ultrathin 2D-material/steel interfaces. Tribology International, 2021, 163, 107194.	3.0	8
22	Low energy proton irradiation tolerance of molybdenum disulfide lubricants. Applied Surface Science, 2021, 567, 150677.	3.1	10
23	Fracture and Fatigue of Al2O3-Graphene Nanolayers. Nano Letters, 2021, 21, 437-444.	4.5	9
24	Gas-Phase Fluorination of Hexagonal Boron Nitride. Advanced Materials, 2021, 33, e2106084.	11.1	10
25	Corrosion Resistance of Sulfur-Selenium Alloy Coatings. Advanced Materials, 2021, 33, e2104467.	11.1	21
26	Influence of Magnetostriction Induced by the Periodic Permanent Magnet Electromagnetic Acoustic Transducer (PPM EMAT) on Steel. Sensors, 2021, 21, 7700.	2.1	4
27	Scalable Characterization of 2D Gallium-Intercalated Epitaxial Graphene. ACS Applied Materials & Interfaces, 2021, 13, 55428-55439.	4.0	5
28	Friction of magnetene, a non-van der Waals 2D material. Science Advances, 2021, 7, eabk2041.	4.7	21
29	Divisions in a Fibrillar Adhesive Increase the Adhesive Strength. ACS Applied Materials & Interfaces, 2021, 13, 59478-59486.	4.0	2
30	Coplanar Capacitive Sensing as a New Electromagnetic Technique for Non-Destructive Evaluation. , 2021, , .		2
31	Graphene fatigue through van der Waals interactions. Science Advances, 2020, 6, .	4.7	22
32	Hexagonal Boron Nitride for Sulfur Corrosion Inhibition. ACS Nano, 2020, 14, 14809-14819.	7.3	56
33	Enhanced sensitivity of nanoscale subsurface imaging by photothermal excitation in atomic force microscopy. Review of Scientific Instruments, 2020, 91, 063703.	0.6	3
34	Structure-Dependent Wear and Shear Mechanics of Nanostructured MoS ₂ Coatings. Advanced Materials Interfaces, 2020, 7, 1901870.	1.9	13
35	Tailoring the Mechanical and Electrochemical Properties of an Artificial Interphase for High-Performance Metallic Lithium Anode. Advanced Energy Materials, 2020, 10, 2001139.	10.2	36
36	Fatigue of graphene. Nature Materials, 2020, 19, 405-411.	13.3	110

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37	High Temperature Microtribological Studies of MoS ₂ Lubrication for Low Earth Orbit. <i>Lubricants</i> , 2020, 8, 49.	1.2	25
38	Toughening of graphene-based polymer nanocomposites via tuning chemical functionalization. <i>Composites Science and Technology</i> , 2020, 194, 108140.	3.8	44
39	Effects of polymer-filler interactions on controlling the conductive network formation in polyamide 6/multi-Walled carbon nanotube composites. <i>Polymer</i> , 2019, 178, 121684.	1.8	40
40	Insight into the Directional Thermal Transport of Hexagonal Boron Nitride Composites. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 41726-41735.	4.0	33
41	Understanding the Independent and Interdependent Role of Water and Oxidation on the Tribology of Ultrathin Molybdenum Disulfide (MoS ₂). <i>Advanced Materials Interfaces</i> , 2019, 6, 1901246.	1.9	26
42	Thermally conductive polymer-graphene nanoplatelet composite foams. <i>AIP Conference Proceedings</i> , 2019, , .	0.3	1
43	Natural SEI-Inspired Dual-Protective Layers via Atomic/Molecular Layer Deposition for Long-Life Metallic Lithium Anode. <i>Matter</i> , 2019, 1, 1215-1231.	5.0	120
44	Investigating the detection limit of subsurface holes under graphite with atomic force acoustic microscopy. <i>Nanoscale</i> , 2019, 11, 10961-10967.	2.8	11
45	Evaluation of a Magnetic Dipole Model in a DC Magnetic Flux Leakage System. <i>IEEE Transactions on Magnetics</i> , 2019, 55, 1-7.	1.2	18
46	Nanomechanical elasticity and fracture studies of lithium phosphate (LPO) and lithium tantalate (LTO) solid-state electrolytes. <i>Nanoscale</i> , 2019, 11, 18730-18738.	2.8	17
47	Local strain mapping of GO nanosheets under in situ TEM tensile testing. <i>Applied Materials Today</i> , 2019, 14, 102-107.	2.3	6
48	Nonlinear fracture toughness measurement and crack propagation resistance of functionalized graphene multilayers. <i>Science Advances</i> , 2018, 4, eaao7202.	4.7	72
49	Effect of lattice stacking orientation and local thickness variation on the mechanical behavior of few layer graphene oxide. <i>Carbon</i> , 2018, 136, 168-175.	5.4	21
50	Optimization of Periodic Permanent Magnet Configuration in Lorentz-Force EMATs. <i>Research in Nondestructive Evaluation</i> , 2018, 29, 95-108.	0.5	11
51	Highly stretchable conductive thermoplastic vulcanizate/carbon nanotube nanocomposites with segregated structure, low percolation threshold and improved cyclic electromechanical performance. <i>Journal of Materials Chemistry C</i> , 2018, 6, 350-359.	2.7	48
52	Enhanced Thermal Conductivity of Graphene Nanoplatelet-Polymer Nanocomposites Fabricated via Supercritical Fluid-Assisted in Situ Exfoliation. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 1225-1236.	4.0	114
53	An Insight into the Phase Transformation of WS ₂ upon Fluorination. <i>Advanced Materials</i> , 2018, 30, e1803366.	11.1	26
54	Static and dynamic calibration of torsional spring constants of cantilevers. <i>Review of Scientific Instruments</i> , 2018, 89, 093701.	0.6	4

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55	Mechanical stability of the cell nucleus: roles played by the cytoskeleton in nuclear deformation and strain recovery. <i>Journal of Cell Science</i> , 2018, 131, .	1.2	64
56	Ultralight Microcellular Polymerâ€“Graphene Nanoplatelet Foams with Enhanced Dielectric Performance. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 19987-19998.	4.0	79
57	Enhanced Electrical and Electromagnetic Interference Shielding Properties of Polymerâ€“Graphene Nanoplatelet Composites Fabricated via Supercritical-Fluid Treatment and Physical Foaming. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 30752-30761.	4.0	156
58	Effect of Humidity and Water Intercalation on the Tribological Behavior of Graphene and Graphene Oxide. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 22537-22544.	4.0	84
59	Conductive network formation and destruction in polypropylene/carbon nanotube composites via crystal control using supercritical carbon dioxide. <i>Polymer</i> , 2017, 129, 179-188.	1.8	53
60	Role of graphene in enhancing the mechanical properties of TiO ₂ /graphene heterostructures. <i>Nanoscale</i> , 2017, 9, 11678-11684.	2.8	22
61	Work of Adhesion Measurements of MoS ₂ Dry Lubricated 440C Stainless Steel Tribological Contacts. <i>Advanced Engineering Materials</i> , 2017, 19, 1700423.	1.6	5
62	A MEMS device for fracture toughness measurement of 2D nano films under TEM imaging. , 2017, , .		0
63	Surface and Mechanical Characterization of Dental Yttria-Stabilized Tetragonal Zirconia Polycrystals (3Y-TZP) After Different Aging Processes. <i>Microscopy and Microanalysis</i> , 2016, 22, 1179-1188.	0.2	26
64	Enhanced electrocatalytic CO ₂ reduction via field-induced reagent concentration. <i>Nature</i> , 2016, 537, 382-386.	18.7	1,429
65	<i>In situ</i> TEM tensile testing of carbon-linked graphene oxide nanosheets using a MEMS device. <i>Nanotechnology</i> , 2016, 27, 28LT01.	1.3	20
66	Nanoscale Mechanical Characterization of 1D and 2D Materials with Application to Nanocomposites. , 2016, , 77-95.		0
67	Interfacial Shear Strength of Multilayer Graphene Oxide Films. <i>ACS Nano</i> , 2016, 10, 1939-1947.	7.3	64
68	Improvements in the mechanical properties of carbon nanotube fibers through graphene oxide interlocking. <i>Carbon</i> , 2016, 98, 291-299.	5.4	38
69	In Situ Transmission Electron Microscopy: Mechanical Testing. , 2016, , 1543-1554.		0
70	Mechanical characterization of thin films using a MEMS device inside SEM. , 2015, , .		5
71	Effect of structure on the tribology of ultrathin graphene and graphene oxide films. <i>Nanotechnology</i> , 2015, 26, 135702.	1.3	46
72	Statistical shear lag model â€“ Unraveling the size effect in hierarchical composites. <i>Acta Biomaterialia</i> , 2015, 18, 206-212.	4.1	39

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73	An NDT guided wave technique for the identification of corrosion defects at support locations. NDT and E International, 2015, 75, 72-79.	1.7	35
74	Reference Specimen for Nondestructive Evaluation: Characterization of the Oxide Layer of a Cold Shot in Inconel 600. Journal of Materials Engineering and Performance, 2015, 24, 875-884.	1.2	0
75	Strengthening in Graphene Oxide Nanosheets: Bridging the Gap between Interplanar and Intraplanar Fracture. Nano Letters, 2015, 15, 6528-6534.	4.5	61
76	High strength measurement of monolayer graphene oxide. Carbon, 2015, 81, 497-504.	5.4	138
77	In Situ Transmission Electron Microscopy: Mechanical Testing. , 2015, , 1-12.		0
78	Inherent carbonaceous impurities on arc-discharge multiwalled carbon nanotubes and their implications for nanoscale interfaces. Carbon, 2014, 80, 1-11.	5.4	13
79	Characterizing mechanical behavior of atomically thin films: A review. Journal of Materials Research, 2014, 29, 338-347.	1.2	34
80	In Situ Electron Microscopy Four-Point Electromechanical Characterization of Freestanding Metallic and Semiconducting Nanowires. Small, 2014, 10, 725-733.	5.2	40
81	Mechanical Characterization of Graphene. , 2014, , 121-135.		5
82	Multi-scale mechanical improvement produced in carbon nanotube fibers by irradiation cross-linking. Carbon, 2013, 56, 1-11.	5.4	99
83	Atomistic Investigation of Load Transfer Between DWNT Bundles "Crosslinked" by PMMA Oligomers. Advanced Functional Materials, 2013, 23, 1883-1892.	7.8	48
84	Carbon Nanotubes: Atomistic Investigation of Load Transfer Between DWNT Bundles "Crosslinked" by PMMA Oligomers (Adv. Funct. Mater. 15/2013). Advanced Functional Materials, 2013, 23, 1976-1976.	7.8	0
85	In Situ TEM Electromechanical Testing of Nanowires and Nanotubes. Small, 2012, 8, 3233-3252.	5.2	79
86	Experimental-Computational Study of Shear Interactions within Double-Walled Carbon Nanotube Bundles. Nano Letters, 2012, 12, 732-742.	4.5	53
87	Nucleation-Controlled Distributed Plasticity in Penta-Twinned Silver Nanowires. Small, 2012, 8, 2986-2993.	5.2	101
88	Multiscale Experimental Mechanics of Hierarchical Carbon-Based Materials. Advanced Materials, 2012, 24, 2805-2823.	11.1	52
89	Ultrahigh Strength and Stiffness in Cross-Linked Hierarchical Carbon Nanotube Bundles. Advanced Materials, 2011, 23, 2855-2860.	11.1	213
90	Microscopic Friction Studies on Metal Surfaces. Tribology Letters, 2010, 39, 19-24.	1.2	49

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91	Atomic Friction Investigations on Ordered Superstructures. Tribology Letters, 2010, 39, 321-327.	1.2	24
92	Structural and frictional properties of graphene films on SiC(0001) studied by atomic force microscopy. Physical Review B, 2010, 81, .	1.1	143
93	A Multiscale Study of High Performance Double-Walled Nanotube~Polymer Fibers. ACS Nano, 2010, 4, 6463-6476.	7.3	120
94	Friction and Dissipation in Epitaxial Graphene Films. Physical Review Letters, 2009, 102, 086102.	2.9	482
95	Nano-meter scale plasticity in KBr studied by nanoindenter and force microscopy. Materials Research Society Symposia Proceedings, 2009, 1185, 90.	0.1	3
96	A kelvin probe force microscopy of charged indentation-induced dislocation structures in KBr. Nanotechnology, 2009, 20, 264005.	1.3	22
97	Local work function measurements of epitaxial graphene. Applied Physics Letters, 2008, 93, .	1.5	211
98	Atomic structure and friction of ultrathin films of KBr on Cu(100). Physical Review B, 2008, 77, .	1.1	47
99	Interpretation of atomic friction experiments based on atomistic simulations. Journal of Vacuum Science & Technology B, 2007, 25, 1547.	1.3	13
100	Asymmetry in the reciprocal epitaxy of NaCl and KBr. Physical Review B, 2007, 75, .	1.1	18
101	Nanometre-scale plasticity of Cu(100). Nanotechnology, 2007, 18, 044004.	1.3	20
102	Atomic-scale yield and dislocation nucleation in KBr. Physical Review B, 2006, 73, .	1.1	34
103	Fluctuations and jump dynamics in atomic friction experiments. Physical Review B, 2005, 72, .	1.1	115