Zhenyu Zhang

List of Publications by Year
in descending order

73 papers	3,590 citations	136950 32 h-index	133252 59 g-index
73 all docs	73 docs citations	73 times ranked	2281 citing authors

#	Article	IF	Citations
1	Enhanced tribological properties of aligned graphene-epoxy composites. Friction, 2022, 10, 854-865.	6.4	18
2	Investigation on wear characteristics of cemented carbide tools in finish turning spherical shells of pure iron. International Journal of Advanced Manufacturing Technology, 2022, 119, 4951-4961.	3.0	2
3	Zinc Methionine Improves the Growth Performance of Meat Ducks by Enhancing the Antioxidant Capacity and Intestinal Barrier Function. Frontiers in Veterinary Science, 2022, 9, 774160.	2.2	7
4	ATPR regulates human mantle cell lymphoma cells differentiation via SOX11/CyclinD1/Rb/E2F1. Cellular Signalling, 2022, 93, 110280.	3.6	2
5	Quantitatively investigating the self-attraction of nanowires. Nano Research, 2022, 15, 3729-3736.	10.4	3
6	Tracing the Active Phase and Dynamics for Carbon Nanofiber Growth on Nickel Catalyst Using Environmental Transmission Electron Microscopy. Small Methods, 2022, 6, e2200235.	8.6	12
7	Experimental and Theoretical Investigations on Diamond Wire Sawing for a NdFeB Magnet. Materials, 2022, 15, 3034.	2.9	3
8	Excellent tribological properties of epoxyâ€"Ti3C2 with three-dimensional nanosheets composites. Friction, 2021, 9, 734-746.	6.4	36
9	Unprecedented enhancement of wear resistance for epoxy-resin graphene composites. Nanoscale, 2021, 13, 2855-2867.	5.6	34
10	Dynamics of the charging-induced imaging instability in transmission electron microscopy. Nanoscale Advances, 2021, 3, 3035-3040.	4.6	5
11	An in situ TEM nanoindentation-induced new nanostructure in cadmium zinc telluride. Nanoscale, 2021, 13, 7169-7175.	5.6	1
12	Editorial: special issue â€œultraprecision 2019â€• Applied Nanoscience (Switzerland), 2021, 11, 735-735.	3.1	0
13	Chemical mechanical polishing for sapphire wafers using a developed slurry. Journal of Manufacturing Processes, 2021, 62, 762-771.	5.9	89
14	Engineering Nanostructureâ€"Interface of Photoanode Materials Toward Photoelectrochemical Water Oxidation. Advanced Materials, 2021, 33, e2005389.	21.0	100
15	Non-spherical abrasives with ordered mesoporous structures for chemical mechanical polishing. Science China Materials, 2021, 64, 2747-2763.	6.3	21
16	A review: green chemical mechanical polishing for metals and brittle wafers. Journal Physics D: Applied Physics, 2021, 54, 373001.	2.8	25
17	Design of composite abrasives and substrate materials for chemical mechanical polishing applications. Applied Nanoscience (Switzerland), 2020, 10, 1379-1393.	3.1	14
18	Development of a novel chemical mechanical polishing slurry and its polishing mechanisms on a nickel alloy. Applied Surface Science, 2020, 506, 144670.	6.1	143

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19	A novel process of chemical mechanical polishing for FV520B steel. Journal of Manufacturing Processes, 2020, 59, 51-57.	5.9	20
20	Deformation-induced silicon nanostructures. APL Materials, 2020, 8, .	5.1	2
21	Green chemical mechanical polishing of sapphire wafers using a novel slurry. Nanoscale, 2020, 12, 22518-22526.	5.6	118
22	Effects of thickness on thermoelectric properties of Bi0.5Sb1.5Te3 thin films. Applied Nanoscience (Switzerland), 2020, 10, 2375-2381.	3.1	6
23	Self-healing on mismatched fractured composite surfaces of SiC with a diameter of 180 nm. Nanoscale, 2020, 12, 19617-19627.	5.6	3
24	Macroscale Superlubricity: Macroscale Superlubricity Enabled by Grapheneâ€Coated Surfaces (Adv. Sci.) Tj ETQq0 0 0 rgBT /Overlock 10	11.2	4
25	Macroscale Superlubricity Enabled by Grapheneâ€Coated Surfaces. Advanced Science, 2020, 7, 1903239.	11.2	64
26	Research on different cooling methods in the machining of CGI and GCI. Applied Nanoscience (Switzerland), 2020, 10, 2177-2188.	3.1	7
27	Highly flexible few-layer Ti₃C₂ MXene/cellulose nanofiber heat-spreader films with enhanced thermal conductivity. New Journal of Chemistry, 2020, 44, 7186-7193.	2.8	38
28	Effect of Internal Air Flow on Local Postweld Heat Treatment for Large Diameter ASME P92 Steel-Welded Pipes. Journal of Pressure Vessel Technology, Transactions of the ASME, 2020, 142, .	0.6	0
29	Unprecedented Piezoresistance Coefficient in Strained Silicon Carbide. Nano Letters, 2019, 19, 6569-6576.	9.1	62
30	Enhanced Thermal Conductivity of Epoxy Composites Filled with 2D Transition Metal Carbides (MXenes) with Ultralow Loading. Scientific Reports, 2019, 9, 9135.	3.3	104
31	Ultrahigh Recovery of Fracture Strength on Mismatched Fractured Amorphous Surfaces of Silicon Carbide. ACS Nano, 2019, 13, 7483-7492.	14.6	54
32	Identification of COP9 Signalosome Subunit Genes in Bactrocera dorsalis and Functional Analysis of csn3 in Female Fecundity. Frontiers in Physiology, 2019, 10, 162.	2.8	7
33	Deformation induced new pathways in silicon. Nanoscale, 2019, 11, 9862-9868.	5.6	10
34	Deformation induced complete amorphization at nanoscale in a bulk silicon. AIP Advances, 2019, 9, .	1.3	5
35	Environment friendly chemical mechanical polishing of copper. Applied Surface Science, 2019, 467-468, 5-11.	6.1	214
36	In situ TEM observation of rebonding on fractured silicon carbide. Nanoscale, 2018, 10, 6261-6269.	5.6	37

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37	Enhanced thermal conductivity of epoxy composites filled with tetrapod-shaped ZnO. RSC Advances, 2018, 8, 12337-12343.	3.6	41
38	Direct formation of wafer-scale single-layer graphene films on the rough surface substrate by PECVD. Carbon, 2018, 129, 456-461.	10.3	60
39	A novel approach of chemical mechanical polishing for a titanium alloy using an environment-friendly slurry. Applied Surface Science, 2018, 427, 409-415.	6.1	197
40	New Deformation-Induced Nanostructure in Silicon. Nano Letters, 2018, 18, 4611-4617.	9.1	182
41	A novel approach of high-performance grinding using developed diamond wheels. International Journal of Advanced Manufacturing Technology, 2017, 91, 3315-3326.	3.0	70
42	Ultrahigh hardness on a face-centered cubic metal. Applied Surface Science, 2017, 416, 891-900.	6.1	39
43	Formation mechanism of fivefold deformation twins in a face-centered cubic alloy. Scientific Reports, 2017, 7, 45405.	3.3	12
44	In Situ TEM Study of Interaction between Dislocations and a Single Nanotwin under Nanoindentation. ACS Applied Materials & Interfaces, 2017, 9, 29451-29456.	8.0	30
45	A novel approach of mechanical chemical grinding. Journal of Alloys and Compounds, 2017, 726, 514-524.	5.5	150
46	Characterization of the complex involved in regulating V-ATPase activity of the vacuolar and endosomal membrane. Journal of Bioenergetics and Biomembranes, 2017, 49, 347-355.	2.3	3
47	Nanoscale Wear Layers on Silicon Wafers Induced by Mechanical Chemical Grinding. Tribology Letters, 2017, 65, 1.	2.6	47
48	Construction and optimization of transâ€4â€hydroxyâ€Lâ€proline production recombinant E. coli strain taking the glycerol as carbon source. Journal of Chemical Technology and Biotechnology, 2016, 91, 2389-2398.	3.2	12
49	A novel approach to fabricating a nanotwinned surface on a ternary nickel alloy. Materials and Design, 2016, 106, 313-320.	7.0	31
50	A novel approach of chemical mechanical polishing for cadmium zinc telluride wafers. Scientific Reports, 2016, 6, 26891.	3.3	89
51	A novel approach of chemical mechanical polishing using environment-friendly slurry for mercury cadmium telluride semiconductors. Scientific Reports, 2016, 6, 22466.	3.3	85
52	Nanoscale solely amorphous layer in silicon wafers induced by a newly developed diamond wheel. Scientific Reports, 2016, 6, 35269.	3.3	14
53	Waterborne polyurethane conjugated with novel diol chain-extender bearing cyclic phosphoramidate lateral group: synthesis, flammability and thermal degradation mechanism. RSC Advances, 2016, 6, 56610-56622.	3.6	20
54	A novel approach of high speed scratching on silicon wafers at nanoscale depths of cut. Scientific Reports, 2015, 5, 16395.	3.3	133

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55	Real-Time, Quantitative Lighting-up Detection of Telomerase in Urines of Bladder Cancer Patients by AIEgens. Analytical Chemistry, 2015, 87, 6822-6827.	6.5	119
56	Lab in a Tube: Sensitive Detection of MicroRNAs in Urine Samples from Bladder Cancer Patients Using a Single-Label DNA Probe with AIEgens. ACS Applied Materials & Interfaces, 2015, 7, 16813-16818.	8.0	61
57	Accessory enzymes influence cellulase hydrolysis of the model substrate and the realistic lignocellulosic biomass. Enzyme and Microbial Technology, 2015, 79-80, 42-48.	3.2	118
58	The impact of glycerol organosolv pretreatment on the chemistry and enzymatic hydrolyzability of wheat straw. Bioresource Technology, 2015, 187, 354-361.	9.6	107
59	Changes in surface layer of silicon wafers from diamond scratching. CIRP Annals - Manufacturing Technology, 2015, 64, 349-352.	3.6	208
60	Quencher Group Induced High Specificity Detection of Telomerase in Clear and Bloody Urines by AIEgens. Analytical Chemistry, 2015, 87, 9487-9493.	6.5	70
61	Development of a minimal chemically defined medium for Ketogulonicigenium vulgare WSH001 based on its genome-scale metabolic model. Journal of Biotechnology, 2014, 169, 15-22.	3.8	20
62	A model for nanogrinding based on direct evidence of ground chips of silicon wafers. Science China Technological Sciences, 2013, 56, 2099-2108.	4.0	109
63	Characterization of Nanoscale Chips and a Novel Model for Face Nanogrinding on Soft-Brittle HgCdTe Films. Tribology Letters, 2013, 49, 203-215.	2.6	29
64	Ultrahigh hardness and synergistic mechanism of a nanotwinned structure of cadmium zinc telluride. Scripta Materialia, 2013, 68, 747-750.	5.2	18
65	Nanoscale Material Removal Mechanism of Soft-Brittle HgCdTe Single Crystals Under Nanogrinding by Ultrafine Diamond Grits. Tribology Letters, 2012, 46, 95-100.	2.6	45
66	Grinding of silicon wafers using an ultrafine diamond wheel of a hybrid bond material. International Journal of Machine Tools and Manufacture, 2011, 51, 18-24.	13.4	79
67	Material removal mechanism of precision grinding of soft-brittle CdZnTe wafers. International Journal of Advanced Manufacturing Technology, 2010, 46, 563-569.	3.0	17
68	Nanoscale machinability and subsurface damage machined by CMP of soft-brittle CdZnTe crystals. International Journal of Advanced Manufacturing Technology, 2010, 47, 1105-1112.	3.0	26
69	Subsurface crystal lattice deformation machined by ultraprecision grinding of soft-brittle CdZnTe crystals. International Journal of Advanced Manufacturing Technology, 2010, 47, 1065-1081.	3.0	20
70	New deformation mechanism of soft-brittle CdZnTe single crystals under nanogrinding. Scripta Materialia, 2010, 63, 621-624.	5.2	22
71	Nanocutting Process of CdZnTe Single Crystals. Materials and Manufacturing Processes, 2009, 24, 504-508.	4.7	2
72	Chemical mechanical polishing and nanomechanics of semiconductor CdZnTe single crystals. Semiconductor Science and Technology, 2008, 23, 105023.	2.0	32

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73	Unusual stress behaviour of La2O3- and CeO2-doped diamond-like carbon nanofilms. Philosophical Magazine Letters, 2008, 88, 567-574.	1.2	3