

Zhenyu Zhang

List of Publications by Year in descending order

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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	Environment friendly chemical mechanical polishing of copper. <i>Applied Surface Science</i> , 2019, 467-468, 5-11.	6.1	214
2	Changes in surface layer of silicon wafers from diamond scratching. <i>CIRP Annals - Manufacturing Technology</i> , 2015, 64, 349-352.	3.6	208
3	A novel approach of chemical mechanical polishing for a titanium alloy using an environment-friendly slurry. <i>Applied Surface Science</i> , 2018, 427, 409-415.	6.1	197
4	New Deformation-Induced Nanostructure in Silicon. <i>Nano Letters</i> , 2018, 18, 4611-4617.	9.1	182
5	A novel approach of mechanical chemical grinding. <i>Journal of Alloys and Compounds</i> , 2017, 726, 514-524.	5.5	150
6	Development of a novel chemical mechanical polishing slurry and its polishing mechanisms on a nickel alloy. <i>Applied Surface Science</i> , 2020, 506, 144670.	6.1	143
7	A novel approach of high speed scratching on silicon wafers at nanoscale depths of cut. <i>Scientific Reports</i> , 2015, 5, 16395.	3.3	133
8	Real-Time, Quantitative Lighting-up Detection of Telomerase in Urines of Bladder Cancer Patients by AIEgens. <i>Analytical Chemistry</i> , 2015, 87, 6822-6827.	6.5	119
9	Accessory enzymes influence cellulase hydrolysis of the model substrate and the realistic lignocellulosic biomass. <i>Enzyme and Microbial Technology</i> , 2015, 79-80, 42-48.	3.2	118
10	Green chemical mechanical polishing of sapphire wafers using a novel slurry. <i>Nanoscale</i> , 2020, 12, 22518-22526.	5.6	118
11	A model for nanogrinding based on direct evidence of ground chips of silicon wafers. <i>Science China Technological Sciences</i> , 2013, 56, 2099-2108.	4.0	109
12	The impact of glycerol organosolv pretreatment on the chemistry and enzymatic hydrolyzability of wheat straw. <i>Bioresource Technology</i> , 2015, 187, 354-361.	9.6	107
13	Enhanced Thermal Conductivity of Epoxy Composites Filled with 2D Transition Metal Carbides (MXenes) with Ultralow Loading. <i>Scientific Reports</i> , 2019, 9, 9135.	3.3	104
14	Engineering Nanostructureâ€™Interface of Photoanode Materials Toward Photoelectrochemical Water Oxidation. <i>Advanced Materials</i> , 2021, 33, e2005389.	21.0	100
15	A novel approach of chemical mechanical polishing for cadmium zinc telluride wafers. <i>Scientific Reports</i> , 2016, 6, 26891.	3.3	89
16	Chemical mechanical polishing for sapphire wafers using a developed slurry. <i>Journal of Manufacturing Processes</i> , 2021, 62, 762-771.	5.9	89
17	A novel approach of chemical mechanical polishing using environment-friendly slurry for mercury cadmium telluride semiconductors. <i>Scientific Reports</i> , 2016, 6, 22466.	3.3	85
18	Grinding of silicon wafers using an ultrafine diamond wheel of a hybrid bond material. <i>International Journal of Machine Tools and Manufacture</i> , 2011, 51, 18-24.	13.4	79

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19	Quencher Group Induced High Specificity Detection of Telomerase in Clear and Bloody Urines by AIEgens. <i>Analytical Chemistry</i> , 2015, 87, 9487-9493.	6.5	70
20	A novel approach of high-performance grinding using developed diamond wheels. <i>International Journal of Advanced Manufacturing Technology</i> , 2017, 91, 3315-3326.	3.0	70
21	Macroscale Superlubricity Enabled by Graphene-Coated Surfaces. <i>Advanced Science</i> , 2020, 7, 1903239.	11.2	64
22	Unprecedented Piezoresistance Coefficient in Strained Silicon Carbide. <i>Nano Letters</i> , 2019, 19, 6569-6576.	9.1	62
23	Lab in a Tube: Sensitive Detection of MicroRNAs in Urine Samples from Bladder Cancer Patients Using a Single-Label DNA Probe with AIEgens. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 16813-16818.	8.0	61
24	Direct formation of wafer-scale single-layer graphene films on the rough surface substrate by PECVD. <i>Carbon</i> , 2018, 129, 456-461.	10.3	60
25	Ultrahigh Recovery of Fracture Strength on Mismatched Fractured Amorphous Surfaces of Silicon Carbide. <i>ACS Nano</i> , 2019, 13, 7483-7492.	14.6	54
26	Nanoscale Wear Layers on Silicon Wafers Induced by Mechanical Chemical Grinding. <i>Tribology Letters</i> , 2017, 65, 1.	2.6	47
27	Nanoscale Material Removal Mechanism of Soft-Brittle HgCdTe Single Crystals Under Nanogrinding by Ultrafine Diamond Grits. <i>Tribology Letters</i> , 2012, 46, 95-100.	2.6	45
28	Enhanced thermal conductivity of epoxy composites filled with tetrapod-shaped ZnO. <i>RSC Advances</i> , 2018, 8, 12337-12343.	3.6	41
29	Ultrahigh hardness on a face-centered cubic metal. <i>Applied Surface Science</i> , 2017, 416, 891-900.	6.1	39
30	Highly flexible few-layer $\text{Ti}_3\text{C}_2\text{MXene}$ /cellulose nanofiber heat-spreader films with enhanced thermal conductivity. <i>New Journal of Chemistry</i> , 2020, 44, 7186-7193.	2.8	38
31	<i>In situ</i> TEM observation of rebonding on fractured silicon carbide. <i>Nanoscale</i> , 2018, 10, 6261-6269.	5.6	37
32	Excellent tribological properties of epoxy-Ti ₃ C ₂ with three-dimensional nanosheets composites. <i>Friction</i> , 2021, 9, 734-746.	6.4	36
33	Unprecedented enhancement of wear resistance for epoxy-resin graphene composites. <i>Nanoscale</i> , 2021, 13, 2855-2867.	5.6	34
34	Chemical mechanical polishing and nanomechanics of semiconductor CdZnTe single crystals. <i>Semiconductor Science and Technology</i> , 2008, 23, 105023.	2.0	32
35	A novel approach to fabricating a nanotwinned surface on a ternary nickel alloy. <i>Materials and Design</i> , 2016, 106, 313-320.	7.0	31
36	In Situ TEM Study of Interaction between Dislocations and a Single Nanotwin under Nanoindentation. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 29451-29456.	8.0	30

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37	Characterization of Nanoscale Chips and a Novel Model for Face Nanogrinding on Soft-Brittle HgCdTe Films. <i>Tribology Letters</i> , 2013, 49, 203-215.	2.6	29
38	Nanoscale machinability and subsurface damage machined by CMP of soft-brittle CdZnTe crystals. <i>International Journal of Advanced Manufacturing Technology</i> , 2010, 47, 1105-1112.	3.0	26
39	A review: green chemical mechanical polishing for metals and brittle wafers. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 373001.	2.8	25
40	New deformation mechanism of soft-brittle CdZnTe single crystals under nanogrinding. <i>Scripta Materialia</i> , 2010, 63, 621-624.	5.2	22
41	Non-spherical abrasives with ordered mesoporous structures for chemical mechanical polishing. <i>Science China Materials</i> , 2021, 64, 2747-2763.	6.3	21
42	Subsurface crystal lattice deformation machined by ultraprecision grinding of soft-brittle CdZnTe crystals. <i>International Journal of Advanced Manufacturing Technology</i> , 2010, 47, 1065-1081.	3.0	20
43	Development of a minimal chemically defined medium for <i>Ketogulonicigenium vulgare</i> WSH001 based on its genome-scale metabolic model. <i>Journal of Biotechnology</i> , 2014, 169, 15-22.	3.8	20
44	Waterborne polyurethane conjugated with novel diol chain-extender bearing cyclic phosphoramidate lateral group: synthesis, flammability and thermal degradation mechanism. <i>RSC Advances</i> , 2016, 6, 56610-56622.	3.6	20
45	A novel process of chemical mechanical polishing for FV520B steel. <i>Journal of Manufacturing Processes</i> , 2020, 59, 51-57.	5.9	20
46	Ultrahigh hardness and synergistic mechanism of a nanotwinned structure of cadmium zinc telluride. <i>Scripta Materialia</i> , 2013, 68, 747-750.	5.2	18
47	Enhanced tribological properties of aligned graphene-epoxy composites. <i>Friction</i> , 2022, 10, 854-865.	6.4	18
48	Material removal mechanism of precision grinding of soft-brittle CdZnTe wafers. <i>International Journal of Advanced Manufacturing Technology</i> , 2010, 46, 563-569.	3.0	17
49	Nanoscale solely amorphous layer in silicon wafers induced by a newly developed diamond wheel. <i>Scientific Reports</i> , 2016, 6, 35269.	3.3	14
50	Design of composite abrasives and substrate materials for chemical mechanical polishing applications. <i>Applied Nanoscience (Switzerland)</i> , 2020, 10, 1379-1393.	3.1	14
51	Construction and optimization of <i>trans</i> -4-hydroxy-L-proline production recombinant <i>E. coli</i> strain taking the glycerol as carbon source. <i>Journal of Chemical Technology and Biotechnology</i> , 2016, 91, 2389-2398.	3.2	12
52	Formation mechanism of fivefold deformation twins in a face-centered cubic alloy. <i>Scientific Reports</i> , 2017, 7, 45405.	3.3	12
53	Tracing the Active Phase and Dynamics for Carbon Nanofiber Growth on Nickel Catalyst Using Environmental Transmission Electron Microscopy. <i>Small Methods</i> , 2022, 6, e2200235.	8.6	12
54	Deformation induced new pathways in silicon. <i>Nanoscale</i> , 2019, 11, 9862-9868.	5.6	10

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55	Identification of COP9 Signalosome Subunit Genes in <i>Bactrocera dorsalis</i> and Functional Analysis of <i>csn3</i> in Female Fecundity. <i>Frontiers in Physiology</i> , 2019, 10, 162.	2.8	7
56	Research on different cooling methods in the machining of CGI and GCI. <i>Applied Nanoscience (Switzerland)</i> , 2020, 10, 2177-2188.	3.1	7
57	Zinc Methionine Improves the Growth Performance of Meat Ducks by Enhancing the Antioxidant Capacity and Intestinal Barrier Function. <i>Frontiers in Veterinary Science</i> , 2022, 9, 774160.	2.2	7
58	Effects of thickness on thermoelectric properties of Bi _{0.5} Sb _{1.5} Te ₃ thin films. <i>Applied Nanoscience (Switzerland)</i> , 2020, 10, 2375-2381.	3.1	6
59	Deformation induced complete amorphization at nanoscale in a bulk silicon. <i>AIP Advances</i> , 2019, 9, .	1.3	5
60	Dynamics of the charging-induced imaging instability in transmission electron microscopy. <i>Nanoscale Advances</i> , 2021, 3, 3035-3040.	4.6	5
61	Macroscale Superlubricity: Macroscale Superlubricity Enabled by Graphene-Coated Surfaces (Adv. Sci.) TJ ETQq1 1 0,784314 rgBT /Qv	11.2	4
62	Unusual stress behaviour of La ₂ O ₃ - and CeO ₂ -doped diamond-like carbon nanofilms. <i>Philosophical Magazine Letters</i> , 2008, 88, 567-574.	1.2	3
63	Characterization of the complex involved in regulating V-ATPase activity of the vacuolar and endosomal membrane. <i>Journal of Bioenergetics and Biomembranes</i> , 2017, 49, 347-355.	2.3	3
64	Self-healing on mismatched fractured composite surfaces of SiC with a diameter of 180 nm. <i>Nanoscale</i> , 2020, 12, 19617-19627.	5.6	3
65	Quantitatively investigating the self-attraction of nanowires. <i>Nano Research</i> , 2022, 15, 3729-3736.	10.4	3
66	Experimental and Theoretical Investigations on Diamond Wire Sawing for a NdFeB Magnet. <i>Materials</i> , 2022, 15, 3034.	2.9	3
67	Nanocutting Process of CdZnTe Single Crystals. <i>Materials and Manufacturing Processes</i> , 2009, 24, 504-508.	4.7	2
68	Deformation-induced silicon nanostructures. <i>APL Materials</i> , 2020, 8, .	5.1	2
69	Investigation on wear characteristics of cemented carbide tools in finish turning spherical shells of pure iron. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 119, 4951-4961.	3.0	2
70	ATPR regulates human mantle cell lymphoma cells differentiation via SOX11/CyclinD1/Rb/E2F1. <i>Cellular Signalling</i> , 2022, 93, 110280.	3.6	2
71	An <i>in situ</i> TEM nanoindentation-induced new nanostructure in cadmium zinc telluride. <i>Nanoscale</i> , 2021, 13, 7169-7175.	5.6	1
72	Editorial: special issue "ultraprecision 2019". <i>Applied Nanoscience (Switzerland)</i> , 2021, 11, 735-735.	3.1	0

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73	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