

## List of Publications by Citations

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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.

91 papers	892 citations	17 h-index	25 g-index
99 ext. papers	1,227 ext. citations	3.7 avg, IF	4.53 L-index

#	Paper	IF	Citations
91	Topic Review: Application of Raman Spectroscopy Characterization in Micro/Nano-Machining. <i>Micromachines</i> , <b>2018</b> , 9,	3.3	60
90	Sculpturing of single crystal silicon microstructures by elliptical vibration cutting. <i>Journal of Manufacturing Processes</i> , <b>2017</b> , 29, 389-398	5	45
89	Molecular dynamics study of scratching velocity dependency in AFM-based nanometric scratching process. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2009</b> , 505, 65-69	5.3	45
88	Molecular dynamics study of groove fabrication process using AFM-based nanometric cutting technique. <i>Applied Physics A: Materials Science and Processing</i> , <b>2009</b> , 94, 593-600	2.6	33
87	Mechanical and tribological properties of Ni/Al multilayers—A molecular dynamics study. <i>Applied Surface Science</i> , <b>2010</b> , 257, 847-851	6.7	33
86	Brittle-to-ductile transition in elliptical vibration-assisted diamond cutting of reaction-bonded silicon carbide. <i>Journal of Manufacturing Processes</i> , <b>2019</b> , 45, 670-681	5	31
85	Crystal plasticity finite element modeling and simulation of diamond cutting of polycrystalline copper. <i>Journal of Manufacturing Processes</i> , <b>2019</b> , 38, 187-195	5	31
84	In situ TEM observation of rebonding on fractured silicon carbide. <i>Nanoscale</i> , <b>2018</b> , 10, 6261-6269	7.7	30
83	Interaction between phase transformations and dislocations at incipient plasticity of monocrystalline silicon under nanoindentation. <i>Computational Materials Science</i> , <b>2017</b> , 131, 55-61	3.2	29
82	Atomistic origins of material removal rate anisotropy in mechanical polishing of diamond crystal. <i>Carbon</i> , <b>2016</b> , 99, 186-194	10.4	27
81	Twin boundary spacing-dependent friction in nanotwinned copper. <i>Physical Review B</i> , <b>2012</b> , 85,	3.3	26
80	Frictional properties of surface textures fabricated on hardened steel by elliptical vibration diamond cutting. <i>Precision Engineering</i> , <b>2019</b> , 59, 66-72	2.9	24
79	Atomistic investigation of scratching-induced deformation twinning in nanocrystalline Cu. <i>Journal of Applied Physics</i> , <b>2012</b> , 112, 073526	2.5	19
78	Atomistic study of deposition process of Al thin film on Cu substrate. <i>Applied Surface Science</i> , <b>2010</b> , 256, 5993-5997	6.7	19
77	Crystal anisotropy-dependent shear angle variation in orthogonal cutting of single crystalline copper. <i>Precision Engineering</i> , <b>2020</b> , 63, 41-48	2.9	19
76	Coupled effect of crystallographic orientation and indenter geometry on nanoindentation of single crystalline copper. <i>International Journal of Mechanical Sciences</i> , <b>2018</b> , 148, 531-539	5.5	19
75	Experimental and Theoretical Investigation of Crystallographic Orientation Dependence of Nanoscratching of Single Crystalline Copper. <i>PLoS ONE</i> , <b>2015</b> , 10, e0131886	3.7	18

74	Atomistic investigation of wear mechanisms of a copper bi-crystal. <i>Wear</i> , <b>2015</b> , 332-333, 941-948	3.5	16
73	Surface Textures Fabricated by Laser Surface Texturing and Diamond Cutting [Influence of Texture Depth on Friction and Wear. <i>Advanced Engineering Materials</i> , <b>2018</b> , 20, 1700995	3.5	16
72	Achieving ultra-hard surface of mechanically polished diamond crystal by thermo-chemical refinement. <i>Applied Surface Science</i> , <b>2014</b> , 316, 617-624	6.7	16
71	Effect of incident angle on thin film growth: A molecular dynamics simulation study. <i>Thin Solid Films</i> , <b>2013</b> , 544, 496-499	2.2	15
70	Molecular dynamics study of void effect on nanoimprint of single crystal aluminum. <i>Applied Surface Science</i> , <b>2011</b> , 257, 7140-7144	6.7	15
69	Nanosecond pulsed laser ablation of silicon [finite element simulation and experimental validation. <i>Journal of Micromechanics and Microengineering</i> , <b>2019</b> , 29, 075009	2	14
68	Molecular Dynamics Modeling and Simulation of Diamond Cutting of Cerium. <i>Nanoscale Research Letters</i> , <b>2017</b> , 12, 464	5	14
67	Nanosecond Pulsed Laser Ablation on Stainless Steel [Combining Finite Element Modeling and Experimental Work. <i>Advanced Engineering Materials</i> , <b>2019</b> , 21, 1900193	3.5	13
66	Detwinning-induced reduction in ductility of twinned copper nanowires. <i>Science Bulletin</i> , <b>2013</b> , 58, 684-688		13
65	Finite element analysis of the effect of tool rake angle on brittle-to-ductile transition in diamond cutting of silicon. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2019</b> , 104, 881-891	3.2	12
64	Laser Surface Texturing of Stainless Steel [Effect of Pulse Duration on Texture [Morphology and Frictional Response. <i>Advanced Engineering Materials</i> , <b>2019</b> , 21, 1801016	3.5	11
63	Anisotropy-Related Machining Characteristics in Ultra-Precision Diamond Cutting of Crystalline Copper. <i>Nanomanufacturing and Metrology</i> , <b>2020</b> , 3, 123-132	3.4	10
62	The interaction between grain boundary and tool geometry in nanocutting of a bi-crystal copper. <i>International Journal of Extreme Manufacturing</i> , <b>2019</b> , 1, 045001	7.9	10
61	Towards an understanding of grain boundary step in diamond cutting of polycrystalline copper. <i>Journal of Materials Processing Technology</i> , <b>2020</b> , 276, 116400	5.3	10
60	Atomistic and Experimental Investigation of the Effect of Depth of Cut on Diamond Cutting of Cerium. <i>Micromachines</i> , <b>2018</b> , 9,	3.3	9
59	Molecular dynamics simulation of tensile behavior of diffusion bonded Ni/Al nanowires. <i>Journal of Mechanical Science and Technology</i> , <b>2013</b> , 27, 43-46	1.6	9
58	Nanocutting mechanism of 6H-SiC investigated by scanning electron microscope online observation and stress-assisted and ion implant-assisted approaches. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2020</b> , 106, 3869-3880	3.2	8
57	MD simulation of stress-assisted nanometric cutting mechanism of 3C silicon carbide. <i>Industrial Lubrication and Tribology</i> , <b>2019</b> , 71, 686-691	1.3	8

56	Cutting path-dependent machinability of SiCp/Al composite under multi-step ultra-precision diamond cutting. <i>Chinese Journal of Aeronautics</i> , <b>2021</b> , 34, 241-252	3.7	8
55	Depth-sensing ductile and brittle deformation in 3C-SiC under Berkovich nanoindentation. <i>Materials and Design</i> , <b>2021</b> , 197, 109223	8.1	8
54	Crystal plasticity finite element simulation and experiment investigation of nanoscratching of single crystalline copper. <i>Wear</i> , <b>2019</b> , 430-431, 100-107	3.5	7
53	Phased array ultrasonic testing of micro-flaws in additive manufactured titanium block. <i>Materials Research Express</i> , <b>2020</b> , 7, 016572	1.7	7
52	Molecular dynamics study of the nanoimprint process on bi-crystal Al thin films with twin boundaries. <i>Microelectronic Engineering</i> , <b>2012</b> , 95, 116-120	2.5	7
51	Atomistic insight into the minimum wear depth of Cu(111) surface. <i>Nanoscale Research Letters</i> , <b>2013</b> , 8, 514	5	7
50	Crystallographic orientation-dependent pattern replication in direct imprint of aluminum nanostructures. <i>Nanoscale Research Letters</i> , <b>2015</b> , 10, 96	5	6
49	Influence of vibration parameters on ultrasonic elliptical vibration cutting of reaction-bonded silicon carbide. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2020</b> , 108, 427-437	3.2	6
48	Template-assisted nanostructure fabrication by glancing angle deposition: a molecular dynamics study. <i>Nanoscale Research Letters</i> , <b>2013</b> , 8, 312	5	6
47	Machinability of single crystal calcium fluoride by applying elliptical vibration diamond cutting. <i>Precision Engineering</i> , <b>2020</b> , 66, 306-314	2.9	6
46	Molecular Dynamics Investigation of Residual Stress and Surface Roughness of Cerium under Diamond Cutting. <i>Micromachines</i> , <b>2018</b> , 9,	3.3	6
45	Atomistic Investigation of Probe-Based Nanomachining on Cu Twin Boundaries. <i>Journal of Computational and Theoretical Nanoscience</i> , <b>2011</b> , 8, 2344-2349	0.3	5
44	Finite element analysis of synergetic deformation in precision cutting of polymer bonded explosive. <i>Materials and Design</i> , <b>2020</b> , 188, 108471	8.1	5
43	Simulation and experimental investigations of thermal degradation of polystyrene under femtosecond laser ablation. <i>Applied Physics A: Materials Science and Processing</i> , <b>2018</b> , 124, 1	2.6	5
42	Atomistic investigation of ablation of amorphous polystyrene under femtosecond laser pulse. <i>Science China: Physics, Mechanics and Astronomy</i> , <b>2015</b> , 58, 1-7	3.6	4
41	A simulation investigation on elliptical vibration cutting of single-crystal silicon. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2020</b> , 108, 2231-2243	3.2	4
40	Influence of surface morphology on adsorption of potassium stearate molecules on diamond-like carbon substrate: A molecular dynamics study. <i>Applied Surface Science</i> , <b>2018</b> , 441, 708-717	6.7	4
39	Molecular dynamics modelling and simulation of mechanical nanoscratching of polystyrene. <i>International Journal of Nanomanufacturing</i> , <b>2013</b> , 9, 98	0.7	4

38	Concise Review: Recent Advances in Molecular Dynamics Simulation of Nanomachining of Metals. <i>Current Nanoscience</i> , <b>2016</b> , 12, 653-665	1.4	4
37	Finite Element Investigation of the Influence of SiC Particle Distribution on Diamond Cutting of SiCp/Al Composites. <i>Nanomanufacturing and Metrology</i> , <b>2020</b> , 3, 251-259	3.4	4
36	Influence of micro grooves of diamond tool on silicon cutting: a molecular dynamic study. <i>Molecular Simulation</i> , <b>2020</b> , 46, 92-101	2	4
35	Atomistic origin of brittle-to-ductile transition behavior of polycrystalline 3C-SiC in diamond cutting. <i>Ceramics International</i> , <b>2021</b> , 47, 23895-23904	5.1	4
34	Molecular dynamic simulation of tool groove wear in nanoscale cutting of silicon. <i>AIP Advances</i> , <b>2020</b> , 10, 015327	1.5	3
33	Effect of tool geometry in nanometric cutting of nanotwinned Cu: a molecular dynamics study. <i>International Journal of Nanomanufacturing</i> , <b>2015</b> , 11, 138	0.7	3
32	Velocity-dependent Nanoscratching of Amorphous Polystyrene. <i>Current Nanoscience</i> , <b>2013</b> , 9, 153-158	1.4	3
31	In situ investigation of nanometric cutting of 3C-SiC using scanning electron microscope. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2021</b> , 115, 2299-2312	3.2	3
30	Effect of fiber orientation on depth sensing intra-laminar failure of unidirectional CFRP under nano-scratching. <i>Composites Part B: Engineering</i> , <b>2021</b> , 224, 109211	10	3
29	Chemisorption of hydrogen on graphene: insights from atomistic simulations. <i>Journal of Physics Condensed Matter</i> , <b>2017</b> , 29, 195001	1.8	2
28	Desensitising effect of water film on initial decomposition of HMX crystal under nano-cutting conditions by ReaxFF MD simulations. <i>Molecular Simulation</i> , <b>2020</b> , 46, 530-540	2	2
27	Theoretical and Experimental Studies of Over-Polishing of Silicon Carbide in Annular Polishing. <i>Machines</i> , <b>2018</b> , 6, 15	2.9	2
26	An investigation of the adsorption of potassium stearate molecules on diamond-like carbon substrate using molecular dynamics simulation. <i>Applied Surface Science</i> , <b>2017</b> , 425, 384-392	6.7	2
25	Experimental investigation of laser surface texturing and related biocompatibility of pure titanium. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2022</b> , 119, 5993	3.2	2
24	Molecular dynamics study of mechanical properties of HMX/BS interface. <i>AIMS Materials Science</i> , <b>2019</b> , 6, 111-118	1.9	2
23	Numerical investigation on material removal mechanism in elliptical vibration cutting of single-crystal silicon. <i>Materials Science in Semiconductor Processing</i> , <b>2021</b> , 134, 106019	4.3	2
22	Molecular dynamics research on geometric effect of nanostructured diamond-like carbon substrates on potassium stearate adsorption. <i>Applied Surface Science</i> , <b>2019</b> , 484, 1041-1051	6.7	1
21	Effects of Pre-Existing Defects on Nanoimprint Process Investigated by Molecular Dynamics Simulation. <i>International Journal of Nanoscience</i> , <b>2015</b> , 14, 1460020	0.6	1

20	On the crystallographic anisotropy of plastic zone size in single crystalline copper under Berkovich nanoindentation. <i>Materials Today Communications</i> , <b>2020</b> , 25, 101314	2.5	1
19	Finite element investigation on the wave-particle interactions in ultrasonic inspection of SiCp/Al composites. <i>Materials Research Express</i> , <b>2020</b> , 7, 036534	1.7	1
18	Femtosecond laser ablation of polystyrene: A molecular dynamics study. <i>Journal of Applied Polymer Science</i> , <b>2015</b> , 132, n/a-n/a	2.9	1
17	Calculation of the intracellular elastic modulus based on an atomic force microscope micro-cutting system. <i>Science Bulletin</i> , <b>2012</b> , 57, 1868-1872		1
16	Molecular dynamics investigation of incipient plasticity during nanomachining of Cu (111) surface. <i>International Journal of Nanomanufacturing</i> , <b>2011</b> , 7, 559	0.7	1
15	Growth of highly oriented graphite by ultraviolet nanosecond pulsed laser ablation of monocrystalline diamond. <i>Applied Surface Science</i> , <b>2022</b> , 578, 151995	6.7	1
14	Modified Wettability of Micro-structured Steel Surfaces Fabricated by Elliptical Vibration Diamond Cutting. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 1	3.8	1
13	Manufacturing of high-precision surface micro-structures on stainless steel by ultrasonic impact peening. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2021</b> , 116, 915-930	3.2	1
12	Effect of tool rake angle on the material removal mechanism transition of single-crystal silicon: a molecular dynamics study. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2021</b> , 115, 3631-3644	3.2	1
11	Coordinated attitude control for flexible spacecraft formation with actuator configuration misalignment. <i>Chinese Journal of Aeronautics</i> , <b>2021</b> , 34, 176-186	3.7	1
10	Atomistic Investigation of Anisotropic Nanoindentation Behavior of Nanotwinned Aluminum Containing Inclined Twin Boundaries. <i>Nanomaterials</i> , <b>2018</b> , 8,	5.4	1
9	Coupled thermo-mechanical sticking-sliding friction model along tool-chip interface in diamond cutting of copper. <i>Journal of Manufacturing Processes</i> , <b>2021</b> , 70, 578-592	5	1
8	Atomic-scale study of dislocation-grain boundary interactions in Cu bicrystal by Berkovich nanoindentation. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2022</b> , 840, 143012	5.3	1
7	Coupled effect of tool geometry and tool-particle position on diamond cutting of SiCp/Al. <i>Journal of Materials Processing Technology</i> , <b>2022</b> , 303, 117510	5.3	0
6	Fabrication of Sinusoidal Microstructures on Curved Copper Surface by Ultra-Precision Diamond Cutting with a Rotary B-Axis and Fast Tool Servo System. <i>Applied Sciences (Switzerland)</i> , <b>2021</b> , 11, 10302	2.6	0
5	Finite element analysis and experimental investigation of ultrasonic testing of internal defects in SiCp/Al composites. <i>Ceramics International</i> , <b>2021</b> , 48, 5972-5972	5.1	0
4	Finite Element Modeling of Brittle and Ductile Modes in Cutting of 3C-SiC. <i>Crystals</i> , <b>2021</b> , 11, 1286	2.3	0
3	Finite element investigation on pretreatment temperature-dependent orthogonal cutting of unidirectional CFRP. <i>Composite Structures</i> , <b>2021</b> , 278, 114678	5.3	0

- 2 Fundamentals of Nanometric Cutting of Nanotwinned Copper. *Springer Tracts in Mechanical Engineering*, **2019**, 1-22 0.3
- 1 Experimental Optimization of Annular Polishing Parameters for Silicon Carbide. *Advances in Materials Science and Engineering*, **2018**, 2018, 1-6 1.5