Bin Guo

List of Publications by Year in descending order

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132	2,580	28 h-index	43
papers	citations		g-index
132	132	132	2114
all docs	docs citations	times ranked	citing authors

#	Article	IF	CITATIONS
1	Shape-Transformable, Fusible Rodlike Swimming Liquid Metal Nanomachine. ACS Nano, 2018, 12, 10212-10220.	7.3	186
2	Blanking clearance and grain size effects on micro deformation behavior and fracture in micro-blanking of brass foil. International Journal of Machine Tools and Manufacture, 2012, 60, 27-34.	6.2	89
3	Modeling of thermal and mechanical behavior of a magnesium alloy AZ31 during electrically-assisted micro-tension. International Journal of Plasticity, 2016, 85, 230-257.	4.1	86
4	A One-Pot Two-Step Approach for the Catalytic Conversion of Glucose into 2,5-Diformylfuran. Catalysis Letters, 2011, 141, 735-741.	1.4	67
5	Microhardness, microstructure and tensile behavior of an AZ31 magnesium alloy processed by high-pressure torsion. Journal of Materials Science, 2015, 50, 7424-7436.	1.7	60
6	A Review of Point Set Registration: From Pairwise Registration to Groupwise Registration. Sensors, 2019, 19, 1191.	2.1	60
7	Development of a micro-forming system for micro-punching process of micro-hole arrays in brass foil. Journal of Materials Processing Technology, 2012, 212, 2238-2246.	3.1	55
8	Size effects on flow stress behavior during electrically-assisted micro-tension in a magnesium alloy AZ31. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 659, 215-224.	2.6	54
9	Micro deep drawing of micro cups by using DLC film coated blank holders and dies. Diamond and Related Materials, 2011, 20, 196-200.	1.8	52
10	Effect of grain size and specimen dimensions on micro-forming of high purity aluminum. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 646, 207-217.	2.6	52
11	Nature of vanadium species on vanadium silicalite-1 zeolite and their stability in hydroxylation reaction of benzene to phenol. Catalysis Science and Technology, 2011, 1, 1060.	2.1	50
12	Springback evaluation in hot v-bending of Ti-6Al-4V alloy sheets. International Journal of Advanced Manufacturing Technology, 2015, 76, 577-585.	1.5	50
13	Hardness homogeneity and micro-tensile behavior in a magnesium AZ31 alloy processed by equal-channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 586, 108-114.	2.6	49
14	Mechanism and application of laser cleaning: A review. Optics and Lasers in Engineering, 2022, 157, 107130.	2.0	49
15	Micro-deformation behavior in micro-compression with high-purity aluminum processed by ECAP. Manufacturing Review, 2015, 2, 1.	0.9	48
16	Microstructural evolution and micro/meso-deformation behavior in pure copper processed by equal-channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 664, 114-125.	2.6	48
17	Tunable electronic properties of graphene through controlling bonding configurations of doped nitrogen atoms. Scientific Reports, 2016, 6, 28330.	1.6	48
18	An energy based modeling for the acoustic softening effect on the Hall-Petch behavior of pure titanium in ultrasonic vibration assisted micro-tension. International Journal of Plasticity, 2021, 136, 102879.	4.1	46

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19	Micro hot embossing of micro-array channels in ultrafine-grained pure aluminum using a silicon die. Journal of Materials Processing Technology, 2015, 225, 375-384.	3.1	45
20	Effects of specimen and grain size on electrically-induced softening behavior in uniaxial micro-tension of AZ31 magnesium alloy: Experiment and modeling. Materials and Design, 2017, 127, 134-143.	3.3	43
21	Size effects in micro blanking of metal foil with miniaturization. International Journal of Advanced Manufacturing Technology, 2011, 56, 515-522.	1.5	38
22	Poly(vinyl alcohol) hydrogels integrated with cuprous oxide–tannic acid submicroparticles for enhanced mechanical properties and synergetic antibiofouling. Journal of Colloid and Interface Science, 2019, 535, 491-498.	5.0	38
23	Plastic deformation size effects in micro-compression of pure nickel with a few grains across diameter. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 636, 352-360.	2.6	36
24	Removal mechanism of surface cleaning on TA15 titanium alloy using nanosecond pulsed laser. Optics and Laser Technology, 2021, 139, 106998.	2.2	36
25	Dry sliding wear of an AZ31 magnesium alloy processed by equal-channel angular pressing. Journal of Materials Science, 2013, 48, 4117-4127.	1.7	33
26	Size effect on flow stress in uniaxial compression of pure nickel cylinders with a few grains across thickness. Materials Letters, 2013, 106, 294-296.	1.3	33
27	Evolution of spherical nanovoids within copper polycrystals during plastic straining: Atomistic investigation. International Journal of Plasticity, 2018, 100, 122-141.	4.1	32
28	Effects of temperature, strain rate and specimen size on the deformation behaviors at micro/meso-scale in ultrafine-grained pure Al. Materials Characterization, 2015, 109, 181-188.	1.9	29
29	Investigation on effect of ultrasonic vibration on micro-blanking process of copper foil. International Journal of Advanced Manufacturing Technology, 2017, 93, 2243-2249.	1.5	29
30	Changes in endogenous hormones and H2O2 burst during shoot organogenesis in TDZ-treated Saussurea involucrate explants. Plant Cell, Tissue and Organ Culture, 2017, 128, 1-8.	1.2	29
31	Microstructural Evolution and Mechanical Properties in Superlight Mg-Li Alloy Processed by High-Pressure Torsion. Materials, 2018, 11, 598.	1.3	29
32	Removal mechanism of blue paint on aluminum alloy substrate during surface cleaning using nanosecond pulsed laser. Optics and Laser Technology, 2022, 149, 107882.	2.2	29
33	Size effect on friction in scaled down strip drawing. Journal of Materials Science, 2010, 45, 4067-4072.	1.7	28
34	Flow stress and tribology size effects in scaled down cylinder compression. Transactions of Nonferrous Metals Society of China, 2009, 19, s516-s520.	1.7	27
35	Sustainable micro-manufacturing of superhydrophobic surface onÂultrafine-grained pure aluminum substrate combining micro-embossing and surface modification. Journal of Cleaner Production, 2019, 232, 705-712.	4.6	26
36	Microstructural Evolution and Mechanical Behavior of Cu/Nb Multilayer Composites Processed by Accumulative Roll Bonding. Advanced Engineering Materials, 2020, 22, 1900702.	1.6	26

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37	Multifunctionally wearable monitoring with gelatin hydrogel electronics of liquid metals. Materials Horizons, 2022, 9, 961-972.	6.4	26
38	Effects of lubrication conditions on micro deep drawing. Microsystem Technologies, 2010, 16, 1741-1747.	1.2	25
39	Paint Removal on the 5A06 Aluminum Alloy Using a Continuous Wave Fiber Laser. Coatings, 2019, 9, 488.	1.2	25
40	A Review on Micro/Nanoforming to Fabricate 3D Metallic Structures. Advanced Materials, 2021, 33, e2000893.	11.1	25
41	Specimen Dimension and Grain Size Effects on Deformation Behavior in Micro Tensile of SUS304 Stainless Steel Foil. Materials Transactions, 2013, 54, 984-989.	0.4	24
42	Interactive effect of microstructure and cavity dimension on filling behavior in micro coining of pure nickel. Scientific Reports, 2016, 6, 23895.	1.6	23
43	Aromatic Câ€"N bond formation via simultaneous activation of Câ€"H and Nâ€"H bonds: direct oxyamination of benzene to aniline. Green Chemistry, 2012, 14, 1880.	4.6	21
44	Effect of Lanthanum on Rooting of In Vitro Regenerated Shoots of Saussurea involucrata Kar. et Kir. Biological Trace Element Research, 2012, 147, 334-340.	1.9	21
45	Experimental research on micro-deep drawing processes of pure gold thin sheet using DLC-coated female die. International Journal of Advanced Manufacturing Technology, 2013, 67, 2477-2487.	1.5	20
46	Shear fracture mechanism in micro-tension of an ultrafine-grained pure copper using synchrotron radiation X-ray tomography. Scripta Materialia, 2017, 132, 25-29.	2.6	20
47	Plasma choline-containing phospholipids: potential biomarkers for colorectal cancer progression. Metabolomics, 2013, 9, 202-212.	1.4	19
48	Combination of multi-element and stable isotope analysis improved the traceability of chicken from four provinces of China. CYTA - Journal of Food, 2016, 14, 163-168.	0.9	19
49	Liquid Metal Swimming Nanorobots. Accounts of Materials Research, 2022, 3, 122-132.	5.9	18
50	Micro-punching process of stainless steel foil with micro-die fabricated by micro-EDM. Microsystem Technologies, 2014, 20, 83-89.	1.2	17
51	Study on Hot Deformation Behavior and Microstructure Evolution of Ti55 High-Temperature Titanium Alloy. Metals, 2017, 7, 319.	1.0	17
52	Manufacturing High Aspect Ratio Microturbine by Isothermal Microforging Process. Materials and Manufacturing Processes, 2014, 29, 42-45.	2.7	16
53	Microstructural Evolution and Microâ€Compression in Highâ€Purity Copper Processed by Highâ€Pressure Torsion. Advanced Engineering Materials, 2016, 18, 241-250.	1.6	16
54	Size effects on plastic deformation behavior in micro radial compression of pure copper. Transactions of Nonferrous Metals Society of China, 2013, 23, 2686-2691.	1.7	15

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55	Graphene oxide-based composite monolith as new sorbent for the on-line solid phase extraction and high performance liquid chromatography determination of AŸ-sitosterol in food samples. Talanta, 2018, 186, 200-205.	2.9	15
56	Ultraviolet laser cleaning and surface characterization of AH36 steel for rust removal. Journal of Laser Applications, 2020, 32, .	0.8	15
57	Effects of tribological behavior of DLC film on micro-deep drawing processes. Transactions of Nonferrous Metals Society of China, 2014, 24, 2877-2882.	1.7	14
58	Evidence for an early softening behavior in pure copper processed by high-pressure torsion. Journal of Materials Science, 2016, 51, 1923-1930.	1.7	14
59	Microstructural Evolution and Microhardness Variations in Pure Titanium Processed by Highâ€Pressure Torsion. Advanced Engineering Materials, 2020, 22, 1901462.	1.6	14
60	Surface finish of micro punch with ion beam irradiation. Transactions of Nonferrous Metals Society of China, 2009, 19, s526-s530.	1.7	13
61	Surface quality improvements of WC–Co micro-punch finished by ion beam irradiation for micro-punching process of metal foil. Surface and Coatings Technology, 2013, 235, 803-810.	2.2	13
62	Softening effect of ultrasonic vibration on microâ€blanking deformation behaviour of titanium foil. Micro and Nano Letters, 2017, 12, 808-812.	0.6	13
63	Microcrack healing in non-ferrous metal tubes through eddy current pulse treatment. Scientific Reports, 2018, 8, 6016.	1.6	13
64	Current-Induced Ductility Enhancement of a Magnesium Alloy AZ31 in Uniaxial Micro-Tension Below 373 K. Materials, 2019, 12, 111.	1.3	13
65	Mechanical behavior and shear banding of electropulsing-assisted micro-scale shear-compression in Ti-6Al-4V alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 771, 138647.	2.6	13
66	Strain softening mechanism at meso scale during micro-compression in an ultrafine-grained pure copper. AIP Advances, 2015, 5, 097147.	0.6	12
67	The Fabrication of Micro-Array Channels with the Ultrafine-Grained LZ91 Mg-Li Alloy by Micro-Embossing. Micromachines, 2018, 9, 55.	1.4	12
68	Investigation of Electrically-Assisted Rolling Process of Corrugated Surface Microstructure with T2 Copper Foil. Materials, 2019, 12, 4144.	1.3	12
69	Size Effect on Friction of C3602 in Cylinder Compression. Tribology Transactions, 2010, 53, 244-248.	1.1	11
70	Effects of interfacial contact states on tribological behaviour in micro-sheet forming. International Journal of Mechanical Sciences, 2015, 101-102, 81-88.	3.6	11
71	Nature-inspired micro/nanomotors. Nanoscale, 2022, 14, 219-238.	2.8	11
72	Removal mechanisms of nanosecond pulsed laser cleaning of blue and red polyurethane paint. Applied Physics A: Materials Science and Processing, 2022, 128, 1.	1.1	11

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73	Healing of Fatigue Crack in 1045 Steel by Using Eddy Current Treatment. Materials, 2016, 9, 641.	1.3	10
74	Hydrogenâ€Induced Improvement of the Cylindrical Drawing Properties of a Ti–22Al–25Nb Alloy. Advanced Engineering Materials, 2017, 19, 1600621.	1.6	10
75	Effect of Grain Size on Formability and Deformation Mechanism of Highâ€Purity Aluminum during Microâ€Embossing Process at Elevated Temperature. Advanced Engineering Materials, 2019, 21, 1900690.	1.6	10
76	Ultrafast Growth of Uniform Multi-Layer Graphene Films Directly on Silicon Dioxide Substrates. Nanomaterials, 2019, 9, 964.	1.9	10
77	Microâ€Embossing Formability of a Superlight Dualâ€Phase Mg–Li Alloy Processed by Highâ€Pressure Torsion. Advanced Engineering Materials, 2019, 21, 1800961.	1.6	10
78	Bio-Inspired Functional Surface Fabricated by Electrically Assisted Micro-Embossing of AZ31 Magnesium Alloy. Materials, 2020, 13, 412.	1.3	10
79	Mechanism of size effects in microcylindrical compression of pure copper considering grain orientation distribution. Rare Metals, 2013, 32, 18-24.	3.6	9
80	Microstructural Evolution at Micro/Meso-Scale in an Ultrafine-Grained Pure Aluminum Processed by Equal-Channel Angular Pressing with Subsequent Annealing Treatment. Materials, 2015, 8, 7447-7460.	1.3	9
81	Local softening deformation and phase transformation induced by electric current in electrically-assisted micro-compression of Ti–6Al–4V alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 831, 142262.	2.6	9
82	Research on elevated temperature deformation behavior of Ti-6Al-4V sheets. Rare Metals, 2009, 28, 550-553.	3.6	8
83	Effects of solid lubrication film on SKD11 in micro sheet forming. Surface and Coatings Technology, 2013, 232, 814-820.	2.2	8
84	Interactive effects of height-to-diameter ratio and strain on tribological behavior in micro compression of pure nickel cylinder. International Journal of Mechanical Sciences, 2018, 144, 452-460.	3.6	8
85	Atomistic simulation of the stacking fault energy and grain shape on strain hardening behaviours of FCC nanocrystalline metals. Philosophical Magazine, 2019, 99, 2818-2840.	0.7	8
86	A novel poly (NMA-co-DEA-co-EDMA) monolithic column as a sorbent for online solid-phase extraction and its application in the determination of \hat{l}^2 -sitosterol in plant oil samples. Food Chemistry, 2019, 278, 594-600.	4.2	8
87	Grain size and specimen thickness effects on twinning behaviors in high strain rate deformation of ultra-thin pure titanium sheet. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 832, 142417.	2.6	8
88	Deformation Behavior and Dynamic Recrystallization of Ti–22Al–25Nb Alloy at 750–990 °C. Advance Engineering Materials, 2020, 22, 1901231.	ed _{1.6}	7
89	Micro-extrusion process and microstructure evolution of miniature heat pipe in 6063 aluminum alloy. International Journal of Advanced Manufacturing Technology, 2022, 120, 6463-6480.	1.5	7
90	Improvement of multi-functional properties by fabricating micro-pillar arrays structures on zirconium alloy surface. Science China Technological Sciences, 2022, 65, 1243-1252.	2.0	7

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91	Dynamic Separation of a Sphere from a Flat or Sphere in the Presence of a Liquid Meniscus. Tribology Transactions, 2011, 54, 542-547.	1.1	6
92	The formation mechanism of tear strips on stretched Ti-22Al-25Nb alloy sheets. Scientific Reports, 2017, 7, 1645.	1.6	6
93	Study on Hot Press Forming Process of Large Curvilinear Generatrix Workpiece of Ti55 High-Temperature Titanium Alloy. Metals, 2018, 8, 827.	1.0	6
94	Deformation path and springback behavior in double-curved bending at high temperature. Journal of Mechanical Science and Technology, 2019, 33, 4361-4370.	0.7	6
95	Interactive effects of specimen size and current density on tribological behavior of electrically-assisted micro-forming in TC4 titanium alloy. Tribology International, 2020, 151, 106457.	3.0	5
96	3D Metallic Structures: A Review on Micro/Nanoforming to Fabricate 3D Metallic Structures (Adv.) Tj ETQq0 0 0	rgBT_/Ove	rlogk 10 Tf 50
97	Formation mechanism and optimization strategy of surface back-end defects in miniature complex hollow extruded profile. Journal of Materials Processing Technology, 2022, 308, 117726.	3.1	5
98	Preparation of Novel Silica Nanoparticles with Controllable Fluorescence Intensity from Porphyrinâ€Bridged Silsesquioxane. Chinese Journal of Chemistry, 2011, 29, 363-368.	2.6	4
99	Size Effect in the Uniaxial Compression of Polycrystalline Ni Nanopillars with Small Number of Grains. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 4462-4479.	1.1	4
100	Investigation of PtSGT1 and PtSGT4 Function in Cellulose Biosynthesis in Populus tomentosa Using CRISPR/Cas9 Technology. International Journal of Molecular Sciences, 2021, 22, 13200.	1.8	4
101	Size effects on flow stress of C3602 in cylinder compression with different lubricants. Rare Metals, 2009, 28, 528-532.	3.6	3
102	Properties of DLC Film Deposited on Mould with Micro-Cavity Used in Microforming. Integrated Ferroelectrics, 2012, 136, 35-42.	0.3	3
103	Short Communication: Organogenesis and somatic embryogenesis in callus derived from HBsAg-transgenic tomato mutant. Canadian Journal of Plant Science, 2012, 92, 747-756.	0.3	3
104	In vitro propagation of a poisonous plant Oxytropis glabra (Lam.) DC. Plant Cell, Tissue and Organ Culture, 2015, 120, 49-55.	1.2	3
105	Innovative Applications of Ultrafine-Grained Materials., 0,,.		3
106	High-Temperature Oxidation Behaviors of TA15 Titanium Alloy after Mechanical Grinding and Laser Cleaning. Coatings, 2021, 11, 1090.	1.2	3
107	Altered circadian rhythm of pulp sensibility in elderly diabetic and hypertensive patients. Chinese Medical Journal, 2007, 120, 1024-6.	0.9	3
108	Dynamic simulation and analysis for bolt and nut mating of dual arm robot. , 2012, , .		2

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109	Molecular Design of a Porphyrin Dimer with Features of P-Type and N-Type Heterojunctions by Chiral <scp>I</scp> -Glutamic Acid Induced Action. Journal of Physical Chemistry C, 2015, 119, 8591-8595.	1.5	2
110	Plastic deformation behaviour of layer-grained silver polycrystalline from atomistic simulation. Philosophical Magazine, 2016, 96, 2397-2411.	0.7	2
111	Preparation of Fe3O4-porphyrin nano-composited particles and their optical and magnetic properties. Chemical Research in Chinese Universities, 2017, 33, 530-533.	1.3	2
112	Effects of ultrasonic vibration on filling behaviours in micro-embossing processes. Ferroelectrics, 2019, 546, 25-32.	0.3	2
113	Dilatometric Analysis and Kinetics Research of Martensitic Transformation under a Temperature Gradient and Stress. Materials, 2021, 14, 7271.	1.3	2
114	Safe path planning for free-floating space robot to approach noncooperative spacecraft. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2018, 232, 1258-1271.	0.7	1
115	Effect of Hydrogen on Phase Transformation, Thermal Deformation Behavior, and Forming Limit of TC2 Alloy. Advanced Engineering Materials, 2018, 20, 1800690.	1.6	1
116	Effect of different initiators on temperatureâ€sensitive monolithic columns and application in online enrichment of βâ€sitosterol. Journal of Applied Polymer Science, 2019, 136, 47683.	1.3	1
117	Design of high-resolution flow sensor used in cold gas micro propulsion system. International Journal of Modern Physics A, 2021, 36, 2140018.	0.5	1
118	A ratiometric dual luciferase reporter for quantitative monitoring of pre-mRNA splicing efficiency inÂvivo. Journal of Biological Chemistry, 2021, 297, 100933.	1.6	1
119	The Effects of Geometry Size and Initial Microstructure on Deformation Behavior of Electrically-Assisted Micro-Compression in Ti-6Al-4V Alloy. Materials, 2022, 15, 1656.	1.3	1
120	Microstructure and High-Temperature Properties of TC31 Alloy Manufactured by Laser Melting Deposition. Crystals, 2022, 12, 475.	1.0	1
121	Finite-Elements Modeling and Simulation of Electrically-Assisted Rotary-Draw Bending Process for 6063 Aluminum Alloy Micro-Tube. Metals, 2021, 11, 1956.	1.0	1
122	SIZE EFFECT OF FLOW STRESS IN ISOTHERMAL UPSETTING DEFORMATION. International Journal of Modern Physics B, 2009, 23, 1745-1750.	1.0	0
123	Simulation and discussion on the decreasing flow stress scale effect. Journal of Shanghai Jiaotong University (Science), 2012, 17, 306-311.	0.5	0
124	Atomistic simulation of the strain-hardening behavior of bicrystal Cu nanowires. Journal of Materials Research, 2013, 28, 3339-3346.	1.2	0
125	Effect of Surface Nanocrystals on the Plastic Deformation Behavior in Micro Compression. Integrated Ferroelectrics, 2014, 153, 87-91.	0.3	0
126	Effect of height-to-diameter ratio and lubricant on deformation behavior in micro compression of pure copper. Integrated Ferroelectrics, 2016, 170, 106-111.	0.3	0

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127	Physiological, elemental, and stable isotope responses of the organs of mungbean to reduced atmospheric pressure. In Vitro Cellular and Developmental Biology - Plant, 2017, 53, 113-121.	0.9	O
128	The Instability Criterion for Bicrystal at Nanoscale. Metals, 2018, 8, 986.	1.0	0
129	A Universal Solution of Controlling the Distribution of Multimaterials during Macroscopic Manipulation via a Microtopography-Guided Substrate. Nanomaterials, 2018, 8, 1036.	1.9	0
130	High- and Low-Temperature Deformation Behavior of Different Orientation Hot-Rolled Annealed Zircaloy-4. Journal of Materials Engineering and Performance, 2018, 27, 1203-1216.	1.2	0
131	Micro-Embossing Process in Ultrafine-Grained Pure Aluminum Processed by Equal-Channel Angular Pressing with Elevated Temperature. Key Engineering Materials, 0, 821, 244-249.	0.4	0
132	Deformation Behavior and Microstructural Evolution of T-Shape Upsetting Test in Ultrafine-Grained Pure Copper. Materials, 2021, 14, 4869.	1.3	0