Jae-il Jang

List of Publications by Year
in descending order

156	5,619	53794	95266
papers	citations	45 h-index	68 g-index

158	158	158	4332
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Indentation-induced phase transformations in silicon: influences of load, rate and indenter angle on the transformation behavior. Acta Materialia, 2005, 53, 1759-1770.	7.9	286
2	Resistance of CoCrFeMnNi high-entropy alloy to gaseous hydrogen embrittlement. Scripta Materialia, 2017, 135, 54-58.	5.2	166
3	Atomic packing density and its influence on the properties of Cuâ€“Zr amorphous alloys. Scripta Materialia, 2007, 57, 805-808.	5.2	165
4	Spherical nanoindentation creep behavior of nanocrystalline and coarse-grained CoCrFeMnNi high-entropy alloys. Acta Materialia, 2016, 109, 314-322.	7.9	156
5	Nanoindentation for probing the mechanical behavior of molecular crystalsâ€“a review of the technique and how to use it. CrystEngComm, 2014, 16, 12-23.	2.6	138
6	Influence of surface-roughness on indentation size effect. Acta Materialia, 2007, 55, 3555-3562.	7.9	134
7	Indentation size effect and shear transformation zone size in a bulk metallic glass in two different structural states. Acta Materialia, 2012, 60, 6862-6868.	7.9	130
8	An instrumented indentation technique for estimating fracture toughness of ductile materials: A critical indentation energy model based on continuum damage mechanics. Acta Materialia, 2006, 54, 1101-1109.	7.9	121
9	Influence of indenter angle on cracking in Si and Ge during nanoindentation. Acta Materialia, 2008, 56, 4458-4469.	7.9	114
10	Orowan strengthening effect on the nanoindentation hardness of the ferrite matrix in microalloyed steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 487, 552-557.	5.6	102
11	Nanomechanical behavior and structural stability of a nanocrystalline CoCrFeNiMn high-entropy alloy processed by high-pressure torsion. Journal of Materials Research, 2015, 30, 2804-2815.	2.6	101
12	Defect structure and hardness in nanocrystalline CoCrFeMnNi High-Entropy Alloy processed by High-Pressure Torsion. Journal of Alloys and Compounds, 2017, 711, 143-154.	5.5	100
13	The role of hydrogen in hardening/softening steel: Influence of the charging process. Scripta Materialia, 2015, 107, 46-49.	5.2	99
14	Estimation of the shear transformation zone size in a bulk metallic glass through statistical analysis of the first pop-in stresses during spherical nanoindentation. Scripta Materialia, 2012, 66, 923-926.	5.2	92
15	Extraction of flow properties of single-crystal silicon carbide by nanoindentation and finite-element simulation. Acta Materialia, 2008, 56, 3824-3832.	7.9	91
16	Indentation creep revisited. Journal of Materials Research, 2012, 27, 3-11.	2.6	85
17	Increased time-dependent room temperature plasticity in metallic glass nanopillars and its size-dependency. International Journal of Plasticity, 2012, 37, 108-118.	8.8	83
18	Nanoscale room temperature creep of nanocrystalline nickel pillars at low stresses. International Journal of Plasticity, 2013, 41, 53-64.	8.8	81

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19	Correlation of particle impact conditions with bonding, nanocrystal formation and mechanical properties in kinetic sprayed nickel. Acta Materialia, 2012, 60, 3524-3535.	7.9	80
20	Exploring Nanomechanical Behavior of Silicon Nanowires: AFM Bending Versus Nanoindentation. Advanced Functional Materials, 2011, 21, 279-286.	14.9	79
21	Effects of microstructural change on fracture characteristics in coarse-grained heat-affected zones of QLT-processed 9% Ni steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 340, 68-79.	5.6	77
22	Indentation size effect in bulk metallic glass. Scripta Materialia, 2011, 64, 753-756.	5.2	75
23	Nanoindentation behavior of nanotwinned Cu: Influence of indenter angle on hardness, strain rate sensitivity and activation volume. Acta Materialia, 2013, 61, 7313-7323.	7.9	75
24	Estimation of the Hallâ€“Petch strengthening coefficient of steels through nanoindentation. Scripta Materialia, 2014, 87, 49-52.	5.2	68
25	Assessing welding residual stress in A335 P12 steel welds before and after stress-relaxation annealing through instrumented indentation technique. Scripta Materialia, 2003, 48, 743-748.	5.2	66
26	Evidence for nanoindentation-induced phase transformations in germanium. Applied Physics Letters, 2005, 86, 131907.	3.3	65
27	Surface roughness effect in instrumented indentation: A simple contact depth model and its verification. Journal of Materials Research, 2006, 21, 2975-2978.	2.6	65
28	Room temperature creep in amorphous alloys: Influence of initial strain and free volume. Scripta Materialia, 2010, 63, 1205-1208.	5.2	65
29	Decoupling the contributions of constituent layers to the strength and ductility of a multi-layered steel. Acta Materialia, 2016, 121, 164-172.	7.9	65
30	Annealing effect on plastic flow in nanocrystalline CoCrFeMnNi high-entropy alloy: A nanomechanical analysis. Acta Materialia, 2017, 140, 443-451.	7.9	61
31	Significance of grain refinement on micro-mechanical properties and structures of additively-manufactured CoCrFeNi high-entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 807, 140898.	5.6	59
32	Fracture toughness anisotropy in a API steel line-pipe. Materials Letters, 2007, 61, 5178-5180.	2.6	56
33	Enhancement of strain-rate sensitivity and shear yield strength of a magnesium alloy processed by high-pressure torsion. Scripta Materialia, 2015, 94, 44-47.	5.2	56
34	Micro-mechanical and tribological properties of aluminum-magnesium nanocomposites processed by high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 684, 318-327.	5.6	55
35	Evolution of plasticity, strain-rate sensitivity and the underlying deformation mechanism in Znâ€“22% Al during high-pressure torsion. Scripta Materialia, 2014, 75, 102-105.	5.2	54
36	Indentation of glasses. Progress in Materials Science, 2021, 121, 100834.	32.8	54

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37	Role of free volume in strain softening of as-cast and annealed bulk metallic glass. Journal of Materials Research, 2009, 24, 1405-1416.	2.6	53
38	Evaluation of fracture toughness by small-punch testing techniques using sharp notched specimens. International Journal of Pressure Vessels and Piping, 2003, 80, 221-228.	2.6	52
39	A nanoindentation study on the micromechanical characteristics of API X100 pipeline steel. Metals and Materials International, 2009, 15, 373-378.	3.4	52
40	Variations in overall- and phase-hardness of a new Ni-based superalloy during isothermal aging. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 6121-6127.	5.6	52
41	Nanoindentation analysis of time-dependent deformation in as-cast and annealed Cuâ€“Zr bulk metallic glass. Intermetallics, 2010, 18, 1898-1901.	3.9	50
42	Mechanical properties of porous and fully dense low-Î¤ dielectric thin films measured by means of nanoindentation and the plane-strain bulge test technique. Journal of Materials Research, 2006, 21, 386-395.	2.6	49
43	On the hardness of shear bands in amorphous alloys. Scripta Materialia, 2009, 61, 951-954.	5.2	49
44	Effects of impurities on the biodegradation behavior of pure magnesium. Metals and Materials International, 2009, 15, 955-961.	3.4	49
45	Estimating the stress exponent of nanocrystalline nickel: Sharp vs. spherical indentation. Scripta Materialia, 2011, 65, 300-303.	5.2	49
46	Predicting flow curves of two-phase steels from spherical nanoindentation data of constituent phases: Isostrain method vs. non-isostrain method. International Journal of Plasticity, 2014, 59, 108-118.	8.8	47
47	Bulk-State Reactions and Improving the Mechanical Properties of Metals through High-Pressure Torsion. Materials Transactions, 2019, 60, 1131-1138.	1.2	46
48	Activation energy for plastic flow in nanocrystalline CoCrFeMnNi high-entropy alloy: A high temperature nanoindentation study. Scripta Materialia, 2018, 156, 129-133.	5.2	44
49	Nanoâ€•and Microâ€Mechanical Properties of Ultrafineâ€Grained Materials Processed by Severe Plastic Deformation Techniques. Advanced Engineering Materials, 2017, 19, 1600578.	3.5	42
50	Influence of pre-strain on the gaseous hydrogen embrittlement resistance of a high-entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 718, 43-47.	5.6	41
51	Fabrication of nanocomposites through diffusion bonding under high-pressure torsion. Journal of Materials Research, 2018, 33, 2700-2710.	2.6	41
52	Influences of hydrogen charging method on the hydrogen distribution and nanomechanical properties of face-centered cubic high-entropy alloy: A comparative study. Scripta Materialia, 2019, 168, 76-80.	5.2	39
53	Stress-dependent hardening-to-softening transition of hydrogen effects in nanoindentation of a linepipe steel. International Journal of Hydrogen Energy, 2014, 39, 1897-1902.	7.1	38
54	Nano-graining a particle-strengthened high-entropy alloy. Scripta Materialia, 2019, 163, 24-28.	5.2	38

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55	Variations in DBTT and CTOD within weld heat-affected zone of API X65 pipeline steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 546, 258-262.	5.6	36
56	Effect of hydrogen on the yielding behavior and shear transformation zone volume in metallic glass ribbons. Acta Materialia, 2014, 78, 213-221.	7.9	36
57	Indentation size effect in nanoporous gold. Acta Materialia, 2017, 138, 52-60.	7.9	36
58	Bimodality of incipient plastic strength in face-centered cubic high-entropy alloys. Acta Materialia, 2021, 202, 124-134.	7.9	36
59	Rate-dependent inhomogeneous-to-homogeneous transition of plastic flows during nanoindentation of bulk metallic glasses: Fact or artifact?. Applied Physics Letters, 2007, 90, 211906.	3.3	35
60	Hydrogen-induced nanohardness variations in a CoCrFeMnNi high-entropy alloy. International Journal of Hydrogen Energy, 2017, 42, 12015-12021.	7.1	35
61	Irreversible Structural Change Induced by Elastostatic Stress imposed on an Amorphous Alloy and Its Influence on the Mechanical Properties. Metals and Materials International, 2008, 14, 9-13.	3.4	34
62	Investigations on indentation size effects using a pile-up corrected hardness. Journal Physics D: Applied Physics, 2008, 41, 074027.	2.8	34
63	Self-similarity in the structure of coarsened nanoporous gold. Scripta Materialia, 2017, 137, 46-49.	5.2	34
64	Predicting macroscopic plastic flow of high-performance, dual-phase steel through spherical nanoindentation on each microphase. Journal of Materials Research, 2009, 24, 816-822.	2.6	33
65	Determination of welding residual stress distribution in API X65 pipeline using a modified magnetic Barkhausen noise method. International Journal of Pressure Vessels and Piping, 2003, 80, 641-646.	2.6	32
66	Microâ€Mechanical Behavior of an Exceptionally Strong Metal Matrix Nanocomposite Processed by Highâ€Pressure Torsion. Advanced Engineering Materials, 2016, 18, 1001-1008.	3.5	32
67	Effect of grain size on the strain rate sensitivity of CoCrFeNi high-entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 782, 139281.	5.6	32
68	Instrumented microindentation studies on long-term aged materials: work-hardening exponent and yield ratio as new degradation indicators. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 395, 295-300.	5.6	30
69	A nanoindentation study on grain-boundary contributions to strengthening and aging degradation mechanisms in advanced 12 Cr ferritic steel. Journal of Materials Research, 2007, 22, 175-185.	2.6	30
70	Hydrogen-induced hardening and softening of Niâ€“Nbâ€“Zr amorphous alloys: Dependence on the Zr content. Scripta Materialia, 2014, 93, 56-59.	5.2	30
71	Direct Bonding of Aluminumâ€“Copper Metals through Highâ€Pressure Torsion Processing. Advanced Engineering Materials, 2018, 20, 1800642.	3.5	30
72	Influence of hydrogen on incipient plasticity in CoCrFeMnNi high-entropy alloy. Scripta Materialia, 2019, 161, 23-27.	5.2	30

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73	Application of instrumented indentation technique for enhanced fitness-for-service assessment of pipeline crack. International Journal of Fracture, 2005, 131, 15-33.	2.2	29
74	A study on the evolution of subsurface deformation in a Zr-based bulk metallic glass during spherical indentation. Journal Physics D: Applied Physics, 2008, 41, 074017.	2.8	27
75	Time-dependent nanoscale plasticity of ZnO nanorods. Acta Materialia, 2013, 61, 7180-7188.	7.9	27
76	Hydrogen-induced toughness drop in weld coarse-grained heat-affected zones of linepipe steel. Materials Characterization, 2013, 82, 17-22.	4.4	26
77	Synthesis of Hybrid Nanocrystalline Alloys by Mechanical Bonding through Highâ€Pressure Torsion. Advanced Engineering Materials, 2020, 22, 1901289.	3.5	26
78	Evaluation of fracture toughness using small notched specimens. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 334, 207-214.	5.6	24
79	Weld crack assessments in API X65 pipeline: failure assessment diagrams with variations in representative mechanical properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 373, 122-130.	5.6	24
80	Orientation-dependent indentation modulus and yielding in a high Mn twinning-induced plasticity steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 532, 500-504.	5.6	24
81	Indentation size effect for spherical nanoindentation on nanoporous gold. Scripta Materialia, 2018, 143, 10-14.	5.2	24
82	Room-temperature anelasticity and viscoplasticity of Cuâ€“Zr bulk metallic glasses evaluated using nanoindentation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 577, 101-104.	5.6	21
83	On the nanomechanical characteristics of thermally-treated alloy 690: Grain boundaries versus grain interior. Journal of Alloys and Compounds, 2014, 582, 141-145.	5.5	21
84	Micro-Mechanical Response of an Al-Mg Hybrid System Synthesized by High-Pressure Torsion. Materials, 2017, 10, 596.	2.9	21
85	Oxidation-resistant coating of FeCrAl on Zr-alloy tubes using 3D printing direct energy deposition. Surface and Coatings Technology, 2021, 411, 126915.	4.8	21
86	Experimental analysis of the practical LBZ effects on the brittle fracture performance of cryogenic steel HAZs with respect to crack arrest toughness near fusion line. Engineering Fracture Mechanics, 2003, 70, 1245-1257.	4.3	20
87	Influence of thermo-mechanical treatment on the precipitation strengthening behavior of Inconel 740, a Ni-based superalloy. Journal of Materials Research, 2011, 26, 1253-1259.	2.6	20
88	Hydrogen uptake and its influence in selective laser melted austenitic stainless steel: A nanoindentation study. Scripta Materialia, 2021, 194, 113718.	5.2	20
89	Influence of Indenter Geometry on the Deformation Behavior of Zr₆₀Cu₃₀Al₁₀ Bulk Metallic Glass during Nanoindentation. Materials Transactions, 2007, 48, 1765-1769.	1.2	17
90	Critical bending radius of thin single-crystalline silicon with dome and pyramid surface texturing. Scripta Materialia, 2017, 140, 1-4.	5.2	17

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91	Experimental Analysis of the Elasticâ€“Plastic Transition During Nanoindentation of Single Crystal Alphaâ€Silicon Nitride. Journal of the American Ceramic Society, 2012, 95, 2113-2115.	3.8	15
92	Determination of microstructural criterion for cryogenic toughness variation in actual HAZs using microstructure-distribution maps. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 351, 183-189.	5.6	14
93	Effect of hydrogen on subsurface deformation during indentation of a bulk metallic glass. Intermetallics, 2010, 18, 1872-1875.	3.9	14
94	Mechanical Bonding of Aluminum Hybrid Alloy Systems through Highâ€Pressure Torsion. Advanced Engineering Materials, 2020, 22, 1900483.	3.5	14
95	Mechanical properties and structural stability of a bulk nanostructured metastable aluminum-magnesium system. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 796, 140050.	5.6	14
96	Statistical nature of the incipient plasticity in amorphous alloys. Scripta Materialia, 2020, 187, 360-365.	5.2	14
97	Plasticity improvement of amorphous alloy via skim cold rolling. Metals and Materials International, 2009, 15, 209-214.	3.4	13
98	On the contributions of different micromechanisms for enhancement in the strength of TIâ€“6Alâ€“4V alloy upon B addition: A nanomechanical analysis. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 649, 123-127.	5.6	13
99	Exploring the hydrogen absorption and strengthening behavior in nanocrystalline face-centered cubic high-entropy alloys. Scripta Materialia, 2021, 203, 114069.	5.2	12
100	Crack-initiation toughness and crack-arrest toughness in advanced 9 pct Ni steel welds containing local brittle zones. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2002, 33, 2615-2622.	2.2	11
101	Title is missing!. Journal of Materials Science Letters, 2003, 22, 499-502.	0.5	11
102	Hydrogen-induced softening in nanocrystalline Ni investigated by nanoindentation. Philosophical Magazine, 2016, 96, 3442-3450.	1.6	11
103	Statistical analysis of the size- and rate-dependence of yield and plastic flow in nanocrystalline copper pillars. Acta Materialia, 2017, 127, 332-340.	7.9	11
104	The influence of chemical heterogeneities on the local mechanical behavior of a high-entropy alloy: A micropillar compression study. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 721, 165-167.	5.6	11
105	Micromechanism of local brittle zone phenomenon in weld heat-affected zones of advanced 9% Ni steel. Journal of Materials Science Letters, 2001, 20, 2149-2152.	0.5	10
106	Instrumented indentation of a Pd-based bulk metallic glass: Constant loading-rate test vs constant strain-rate test. Journal of Alloys and Compounds, 2009, 483, 136-138.	5.5	10
107	A novel way to estimate the nanoindentation hardness of only-irradiated layer and its application to ion irradiated Fe-12Cr alloy. Journal of Nuclear Materials, 2017, 487, 343-347.	2.7	10
108	A new Zr-rich intermetallic phase in an Al-14Si-3Cu-4.5Ni casting alloy with trace additions of Zr. Intermetallics, 2020, 117, 106667.	3.9	10

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109	Rate-dependent mechanical behavior of single-, bi-, twinned-, and poly-crystals of CoCrFeNi high-entropy alloy. Journal of Materials Science and Technology, 2022, 120, 253-264.	10.7	10
110	Assessment of surface-local strains from remnant microindents on a Zr-based metallic glass. Metals and Materials International, 2014, 20, 439-443.	3.4	9
111	High-cycle fatigue behavior of Znâ€“22% Al alloy processed by high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 618, 37-40.	5.6	9
112	Tensile Deformation Behavior and Phase Transformation in the Weld Coarse-Grained Heat-Affected Zone of Metastable High-Nitrogen Fe-18Cr-10Mn-N Stainless Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 3069-3076.	2.2	8
113	Time-dependent nanoscale plasticity in nanocrystalline nickel rods and tubes. Scripta Materialia, 2016, 112, 79-82.	5.2	8
114	Decoupling the roles of constituent phases in the strengthening of hydrogenated nanocrystalline dual-phase high-entropy alloys. Scripta Materialia, 2022, 210, 114472.	5.2	8
115	Nanomechanical and microstructural characterization on the synergetic strengthening in selectively laser melted austenitic stainless steel. Scripta Materialia, 2022, 209, 114359.	5.2	7
116	Martensitic phase transformation and pop-in in compression of austenitic steel nanoplates observed in situ by transmission electron microscopy. Materials Letters, 2012, 75, 107-110.	2.6	6
117	Further evidence for room temperature, indentation-induced nanocrystallization in a bulk metallic glass. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 545, 225-228.	5.6	6
118	Wall-thickness-dependent strength of nanotubular ZnO. Scientific Reports, 2017, 7, 4327.	3.3	6
119	A Survey of Nanoindentation Studies on HPTâ€Processed Materials. Advanced Engineering Materials, 2020, 22, 1900648.	3.5	6
120	Design of V-Substituted TiFe-Based Alloy for Target Pressure Range and Easy Activation. Materials, 2021, 14, 4829.	2.9	6
121	Evaluation of cryogenic fracture toughness in SMA-welded 9% Ni steels through modified CTOD test. Metals and Materials International, 1997, 3, 230-238.	0.2	5
122	Strain-dependent transition of time-dependent deformation mechanism in single-crystal ZnO evaluated by spherical nanoindentation. Philosophical Magazine, 2015, 95, 1896-1906.	1.6	5
123	Significant strengthening of nanocrystalline Ni sub-micron pillar by cyclic loading in elastic regime. Scripta Materialia, 2017, 140, 31-34.	5.2	5
124	Strainâ€Đependent Plasticity Evolution of Window Glass. Journal of the American Ceramic Society, 2015, 98, 186-189.	3.8	4
125	Fabrication of hybrid metal systems through the application of high-pressure torsion. IOP Conference Series: Materials Science and Engineering, 2017, 194, 012002.	0.6	4
126	Metallurgical and Mechanical Features of API 5L X65 Pipeline Steel Weldment. , 2002, , 429.		3

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127	Time-dependent mechanical-electrical coupled behavior in single crystal ZnO nanorods. Scientific Reports, 2015, 5, 9716.	3.3	3
128	Effects of interfacial layer-by-layer nanolayers on the stability of the Cu TSV: Diffusion barrier, adhesion, conformal coating, and mechanical property. Materials Science in Semiconductor Processing, 2018, 83, 33-41.	4.0	3
129	Size Effect on Microstructural Evolution and Micromechanical Responses of Mechanically Bonded Aluminum and Magnesium by Highâ€Pressure Torsion. Advanced Engineering Materials, 2020, 22, 1900971.	3.5	3
130	Hierarchical refinement of primary phases in a multicomponent Al-14Si-CuNiMg casting alloy by ultrasonic melt treatment. Materialia, 2021, 16, 101070.	2.7	3
131	BLUNTNESS MEASUREMENT OF A BERKOVICH INDENTER. International Journal of Modern Physics B, 2011, 25, 4273-4276.	2.0	2
132	Evolution of hardness, microstructure, and strain rate sensitivity in a Zn-22% Al eutectoid alloy processed by high-pressure torsion. IOP Conference Series: Materials Science and Engineering, 2014, 63, 012101.	0.6	2
133	Microalloying Effect on the Activation Energy of Hot Deformation. Steel Research International, 2015, 86, 817-820.	1.8	2
134	Micro-Scale Mechanical Behavior of Ultrafine-Grained Materials Processed by High-Pressure Torsion. Materials Science Forum, 2018, 941, 1495-1500.	0.3	2
135	Wallpapering-inspired spreading and wrinkling of atomically-thin materials. Applied Surface Science, 2020, 507, 145184.	6.1	2
136	Corrosion and Oxidation Resistance Behaviors of Ta-Containing Low Alloying Zirconium. Metals and Materials International, 2021, 27, 3079-3084.	3.4	2
137	Behavior of Dynamic Strain Aging in Zr-1.5Nb-0.4Sn-0.2Fe-0.1Cr Alloy Strip. Journal of Korean Institute of Metals and Materials, 2021, 59, 8-13.	1.0	2
138	Microstructure and shear strength of Au-20wt%Sn solder joints fabricated by thermo-compression bonding for LED packages. Journal of Materials Science: Materials in Electronics, 2022, 33, 11002-11016.	2.2	2
139	A Study on the Interrelationship between the Microstructural Features and the Elevated Temperature Strength of Multicomponent Al-Si-Cu-Ni Casting Alloys. Journal of Korean Institute of Metals and Materials, 2022, 60, 489-501.	1.0	2
140	UV Raman Scattering Analysis of Indented and Machined 6H-SiC and Î²-Si3N4 Surfaces. Materials Research Society Symposia Proceedings, 2004, 843, 4101.	0.1	1
141	Reappraisal of the work hardening behavior of bulk amorphous matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 513-514, 160-165.	5.6	1
142	The Effect of Microstructural Change on Fracture Behavior in Heat-Affected Zone of API 5L X65 Pipeline Steel. , 2000, , .		0
143	Advanced Indentation Techniques: NDE for Flow Properties and Residual Stresses of Pipelines. , 2002, , 2045.		0
144	Evaluation of Welding Residual Stresses in Power Plant Facilities by Using a Newly Developed Indentation Technique. , 2002, , 249.		0

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145	Cracking and Phase Transformation in Silicon During Nanoindentation. Materials Research Society Symposia Proceedings, 2003, 795, 451.	0.1	0
146	Instrumented Indentation Technique to Measure Flow Properties: A Novel Way to Enhance the Accuracy of Integrity Assessment. , 2003, , 367.		0
147	Cross-Sectional TEM Studies of Indentation-Induced Phase Transformations in Si: Indenter Angle Effects. Materials Research Society Symposia Proceedings, 2004, 843, 641.	0.1	0
148	Cross-Sectional TEM Studies of Indentation-Induced Phase Transformations in Si: Indenter Angle Effects. Materials Research Society Symposia Proceedings, 2004, 841, R10.4.1/T6.4.1.	0.1	0
149	Characterization of Nanoindentations in Silicon by Cross-sectional TEM. Microscopy and Microanalysis, 2004, 10, 56-57.	0.4	0
150	Micro-Raman Mapping and Analysis of Indentation-Induced Phase Transformations in Germanium. Materials Research Society Symposia Proceedings, 2004, 841, R10.9.1/T6.9.1.	0.1	0
151	On the Characterization of Thin Film-only Mechanical Property Based on the Indentation Image Analysis. Materials Research Society Symposia Proceedings, 2006, 976, 1.	0.1	0
152	Nanoindentation Analysis of Plasticity Evolution during Spherical Microindentation of Bulk Metallic Glass. Materials Research Society Symposia Proceedings, 2007, 1049, 1.	0.1	0
153	Unusual flow behavior of Fe-based soft magnetic amorphous ribbons under high temperature tensile loading. Current Applied Physics, 2018, 18, 411-416.	2.4	0
154	Direct nanofluidic channels via hardening and wrinkling of thin polymer films. Nanoscale, 2020, 12, 16895-16900.	5.6	0
155	Fitness-for-Service Assessment for Weldments of the Natural Gas Pipeline by Using Failure Assessment Diagram. , 2002, , .		0
156	Evaluation of Transition Temperature in Reactor Pressure Vessel Steels 6using the Fracture Energy Transition Curve from a Small Punch Test. Journal of Korean Institute of Metals and Materials, 2020, 58, 522-532.	1.0	0