Ruslan Z Valiev

List of Publications by Year
in descending order

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847	52,316	2101	2033
papers	citations	100 h-index	205 g-index

878	878	878	12898
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Bulk nanostructured materials from severe plastic deformation. Progress in Materials Science, 2000, 45, 103-189.	32.8	5,779
2	Principles of equal-channel angular pressing as a processing tool for grain refinement. Progress in Materials Science, 2006, 51, 881-981.	32.8	3,680
3	Producing bulk ultrafine-grained materials by severe plastic deformation. Jom, 2006, 58, 33-39.	1.9	1,350
4	Nanostructuring of metals by severe plastic deformation for advanced properties. Nature Materials, 2004, 3, 511-516.	27.5	1,265
5	Paradox of Strength and Ductility in Metals Processed Bysevere Plastic Deformation. Journal of Materials Research, 2002, 17, 5-8.	2.6	1,062
6	Structure and properties of ultrafine-grained materials produced by severe plastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1993, 168, 141-148.	5.6	973
7	Microstructures and mechanical properties of ultrafine grained 7075 Al alloy processed by ECAP and their evolutions during annealing. Acta Materialia, 2004, 52, 4589-4599.	7.9	820
8	Plastic deformation of alloys with submicron-grained structure. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1991, 137, 35-40.	5.6	775
9	Review on superior strength and enhanced ductility of metallic nanomaterials. Progress in Materials Science, 2018, 94, 462-540.	32.8	634
10	Structure and deformaton behaviour of Armco iron subjected to severe plastic deformation. Acta Materialia, 1996, 44, 4705-4712.	7.9	616
11	Low-temperature superplasticity in nanostructured nickel and metal alloys. Nature, 1999, 398, 684-686.	27.8	589
12	Nanostructural hierarchy increases the strength of aluminium alloys. Nature Communications, 2010, 1, 63.	12.8	552
13	Deformation behaviour of ultra-fine-grained copper. Acta Metallurgica Et Materialia, 1994, 42, 2467-2475.	1.8	547
14	Nanostructured aluminium alloys produced by severe plastic deformation: New horizons in development. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 560, 1-24.	5.6	464
15	Microhardness measurements and the Hall-Petch relationship in an Alî—¸Mg alloy with submicrometer grain size. Acta Materialia, 1996, 44, 4619-4629.	7.9	435
16	Grain boundaries in ultrafine grained materials processed by severe plastic deformation and related phenomena. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 540, 1-12.	5.6	425
17	Influence of ECAP routes on the microstructure and properties of pure Ti. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 299, 59-67.	5.6	424
18	Deformation twinning in nanocrystalline copper at room temperature and low strain rate. Applied Physics Letters, 2004, 84, 592-594.	3.3	414

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19	Deformation behavior and plastic instabilities of ultrafine-grained titanium. Applied Physics Letters, 2001, 79, 611-613.	3.3	413
20	The mechanism of formation of nanostructure and dissolution of cementite in a pearlitic steel during high pressure torsion. Acta Materialia, 2003, 51, 5555-5570.	7.9	388
21	Continuous processing of ultrafine grained Al by ECAPâ€“Conform. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 382, 30-34.	5.6	376
22	Producing Bulk Ultrafine-Grained Materials by Severe Plastic Deformation: Ten Years Later. Jom, 2016, 68, 1216-1226.	1.9	346
23	Grain refinement and properties of pure Ti processed by warm ECAP and cold rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 343, 43-50.	5.6	336
24	Structure and mechanical properties of ultrafine-grained metals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 234-236, 59-66.	5.6	330
25	Materials science: Nanomaterial advantage. Nature, 2002, 419, 887-889.	27.8	328
26	An investigation of grain boundaries in submicrometer-grained Al-Mg solid solution alloys using high-resolution electron microscopy. Journal of Materials Research, 1996, 11, 1880-1890.	2.6	317
27	Advanced mechanical properties of pure titanium with ultrafine grained structure. Scripta Materialia, 2001, 45, 747-752.	5.2	315
28	Microstructure and mechanical properties of super-strong nanocrystalline tungsten processed by high-pressure torsion. Acta Materialia, 2006, 54, 4079-4089.	7.9	302
29	An investigation of microstructural stability in an AlMg alloy with submicrometer grain size. Acta Materialia, 1996, 44, 2973-2982.	7.9	301
30	OBSERVATIONS OF HIGH STRAIN RATE SUPERPLASTICITY IN COMMERCIAL ALUMINUM ALLOYS WITH ULTRAFINE GRAIN SIZES. Scripta Materialia, 1997, 37, 1945-1950.	5.2	294
31	Microhardness and microstructural evolution in pure nickel during high-pressure torsion. Scripta Materialia, 2001, 44, 2753-2758.	5.2	282
32	Fundamentals of Superior Properties in Bulk NanoSPD Materials. Materials Research Letters, 2016, 4, 1-21.	8.7	280
33	Structure and properties of amorphous and nanocrystalline NiTi prepared by severe plastic deformation and annealing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 339, 159-165.	5.6	278
34	Microstructure and properties of pure Ti processed by ECAP and cold extrusion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 303, 82-89.	5.6	277
35	On the origin of the extremely high strength of ultrafine-grained Al alloys produced by severe plastic deformation. Scripta Materialia, 2010, 63, 949-952.	5.2	274
36	On the structure, stress fields and energy of nonequilibrium grain boundaries. Acta Metallurgica Et Materialia, 1993, 41, 1033-1040.	1.8	270

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37	Formation of nanograined structure and decomposition of supersaturated solid solution during high pressure torsion of Alâ€“Zn and Alâ€“Mg alloys. Acta Materialia, 2004, 52, 4469-4478.	7.9	247
38	A nanostructural design to produce high-strength Al alloys with enhanced electrical conductivity. Scripta Materialia, 2014, 76, 13-16.	5.2	237
39	Nanostructures in Ti processed by severe plastic deformation. Journal of Materials Research, 2003, 18, 1908-1917.	2.6	225
40	Grain boundary diffusion characteristics of nanostructured nickel. Scripta Materialia, 2001, 44, 873-878.	5.2	222
41	Atomic-scale analysis of the segregation and precipitation mechanisms in a severely deformed Alâ€“Mg alloy. Acta Materialia, 2014, 72, 125-136.	7.9	217
42	Nanomaterials by severe plastic deformation: review of historical developments and recent advances. Materials Research Letters, 2022, 10, 163-256.	8.7	215
43	Nanostructured titanium-based materials for medical implants: Modeling and development. Materials Science and Engineering Reports, 2014, 81, 1-19.	31.8	214
44	Optimization of electrical conductivity and strength combination by structure design at the nanoscale in Alâ€“Mgâ€“Si alloys. Acta Materialia, 2015, 98, 355-366.	7.9	211
45	Microstructural study of the parameters governing coarsening and cyclic softening in fatigued ultrafine-grained copper. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2002, 82, 1781-1794.	0.6	208
46	A two step SPD processing of ultrafine-grained titanium. Scripta Materialia, 1999, 11, 947-954.	0.5	204
47	An investigation of ductility and microstructural evolution in an Alâ€˜3% Mg alloy with submicron grain size. Journal of Materials Research, 1993, 8, 2810-2818.	2.6	199
48	An overview: Fatigue behaviour of ultrafine-grained metals and alloys. International Journal of Fatigue, 2006, 28, 1001-1010.	5.7	188
49	Cyclic behavior of ultrafine-grain titanium produced by severe plastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 318, 163-173.	5.6	186
50	Grain boundary structure and properties under external influences. Physica Status Solidi A, 1986, 97, 11-56.	1.7	185
51	High-pressure torsion-induced grain growth in electrodeposited nanocrystalline Ni. Applied Physics Letters, 2006, 88, 021909.	3.3	178
52	Synthesis and properties of hydroxyapatite-containing porous titania coating on ultrafine-grained titanium by micro-arc oxidation. Acta Biomaterialia, 2010, 6, 2816-2825.	8.3	171
53	Grain-size effect on the deformation mechanisms of nanostructured copper processed by high-pressure torsion. Journal of Applied Physics, 2004, 96, 636-640.	2.5	169
54	Dynamic precipitation, segregation and strengthening of an Al-Zn-Mg-Cu alloy (AA7075) processed by high-pressure torsion. Acta Materialia, 2019, 162, 19-32.	7.9	166

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55	New Deformation Twinning Mechanism Generates Zero Macroscopic Strain in Nanocrystalline Metals. Physical Review Letters, 2008, 100, 095701.	7.8	163
56	Softening of nanostructured Alâ€“Zn and Alâ€“Mg alloys after severe plastic deformation. Acta Materialia, 2006, 54, 3933-3939.	7.9	161
57	Influence of strain rate & temperature on the mechanical response of ultrafine-grained Cu, Ni, and Al-4Cu-0.5Zr. Scripta Materialia, 1997, 9, 477-480.	0.5	158
58	Tougher ultrafine grain Cu via high-angle grain boundaries and low dislocation density. Applied Physics Letters, 2008, 92, .	3.3	158
59	Structural evolution and the Hall-Petch relationship in an Alî—¸Mgî—¸Liî—¸Zr alloy with ultra-fine grain size. Acta Materialia, 1997, 45, 4751-4757.	7.9	153
60	Equal channel angular pressing of metal matrix composites: Effect on particle distribution and fracture toughness. Acta Materialia, 2005, 53, 4919-4930.	7.9	152
61	An investigation of the role of intragranular dislocation strain in the superplastic Pb-62% Sn eutectic alloy. Acta Metallurgica Et Materialia, 1993, 41, 949-954.	1.8	150
62	Observations of grain boundary structure in submicrometer-grained Cu and Ni using high-resolution electron microscopy. Journal of Materials Research, 1998, 13, 446-450.	2.6	150
63	Evolution of microstructure, macrotexture and mechanical properties of commercially pure Ti during ECAP-conform processing and drawing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 562, 128-136.	5.6	150
64	The Genetic Legacy of the Expansion of Turkic-Speaking Nomads across Eurasia. PLoS Genetics, 2015, 11, e1005068.	3.5	149
65	Nanostructured Al and Cu alloys with superior strength and electrical conductivity. Journal of Materials Science, 2016, 51, 33-49.	3.7	146
66	Mechanical behavior and superplasticity of a severe plastic deformation processed nanocrystalline Tiâ€“6Alâ€“4V alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 298, 44-50.	5.6	143
67	Microstructural characteristics and superplastic ductility in a Zn-22% Al alloy with submicrometer grain size. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1998, 241, 122-128.	5.6	140
68	On the enhanced grain growth in ultrafine grained metals. Acta Metallurgica Et Materialia, 1995, 43, 4165-4170.	1.8	138
69	Amorphization of TiNi induced by high-pressure torsion. Philosophical Magazine Letters, 2004, 84, 183-190.	1.2	137
70	The Hall-Petch relation in submicro-grained Al-1.5% Mg alloy. Scripta Metallurgica Et Materialia, 1992, 27, 855-860.	1.0	133
71	Structural and mechanical properties of nanocrystalleve titanium processed by severe plastic deformation. Scripta Materialia, 1997, 37, 1089-1094.	5.2	133
72	Superplastic behaviour of ultrafine-grained Tiâ€“6A1â€“4V alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 323, 318-325.	5.6	133

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73	Nanostructure and related mechanical properties of an Alâ€“Mgâ€“Si alloy processed by severe plastic deformation. Philosophical Magazine Letters, 2008, 88, 459-466.	1.2	132
74	Influence of severe plastic deformation on structure and phase composition of carbon steel. Scripta Materialia, 1994, 4, 159-167.	0.5	128
75	Dry-sliding tribological properties of ultrafine-grained Ti prepared by severe plastic deformation. Acta Materialia, 2005, 53, 5167-5173.	7.9	128
76	Unusual super-ductility at room temperature in an ultrafine-grained aluminum alloy. Journal of Materials Science, 2010, 45, 4718-4724.	3.7	125
77	Enhanced superplasticity in a Ti-6Al-4V alloy processed by severe plastic deformation. Scripta Materialia, 2000, 43, 819-824.	5.2	124
78	Fabrication of bulk ultrafine-grained materials through intense plastic straining. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1998, 29, 2237-2243.	2.2	123
79	Processing nanocrystalline Ti and its nanocomposites from micrometer-sized Ti powder using high pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 282, 78-85.	5.6	123
80	Strength, grain refinement and solute nanostructures of an Alâ€“Mgâ€“Si alloy (AA6060) processed by high-pressure torsion. Acta Materialia, 2014, 63, 169-179.	7.9	123
81	On the structure and strength of ultrafine-grained copper produced by severe plastic deformation. Scripta Metallurgica Et Materialia, 1994, 30, 229-234.	1.0	122
82	Ultrafine grained titanium for biomedical applications: An overview of performance. Journal of Materials Research and Technology, 2013, 2, 340-350.	5.8	121
83	Formation mechanism of fivefold deformation twins in nanocrystalline face-centered-cubic metals. Applied Physics Letters, 2005, 86, 103112.	3.3	120
84	Grain boundary segregation induced strengthening of an ultrafine-grained austenitic stainless steel. Materials Letters, 2014, 136, 349-352.	2.6	118
85	Accelerated Diffusion and Phase Transformations in Co–Cu Alloys Driven by the Severe Plastic Deformation. Materials Transactions, 2012, 53, 63-71.	1.2	117
86	Microstructures and properties of nanocomposites obtained through SPTS consolidation of powders. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1998, 29, 2253-2260.	2.2	115
87	Nanostructured materials from severe plastic deformation. Scripta Materialia, 1999, 12, 35-40.	0.5	114
88	The use of severe plastic deformation techniques in grain refinement. Jom, 2004, 56, 64-68.	1.9	114
89	The effect of heat treatment on the elastic and dissipative properties of copper with the submicrocrystalline structure. Acta Metallurgica Et Materialia, 1993, 41, 1041-1046.	1.8	112
90	Mechanical and electrical properties of an ultrafine grained Alâ€“8.5 wt. % RE (RE = 5.4 wt.% Ce, 3.1 wt.%) Tj ETQq0 0 0 rgBT /Overlock	7.0	112

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91	Nanostructured TiNi-based shape memory alloys processed by severe plastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 410-411, 386-389.	5.6	110
92	Grain boundary films in Alâ€“Zn alloys after high pressure torsion. Scripta Materialia, 2014, 70, 59-62.	5.2	110
93	Plastic flow localization in bulk tungsten with ultrafine microstructure. Applied Physics Letters, 2005, 86, 101907.	3.3	109
94	Approach to nanostructured solids through the studies of submicron grained polycrystals. Scripta Materialia, 1995, 6, 73-82.	0.5	108
95	Grain boundary distribution and texture in ultrafine-grained copper produced by severe plastic deformation. Scripta Materialia, 1996, 35, 873-878.	5.2	108
96	Microstructure and microhardness of cryomilled bulk nanocrystalline Al?7.5%Mg alloy consolidated by high pressure torsion. Scripta Materialia, 2004, 51, 209-214.	5.2	106
97	Bulk Nanostructured Metals for Innovative Applications. Jom, 2012, 64, 1134-1142.	1.9	106
98	Nanostructured Cu-Cr alloy with high strength and electrical conductivity. Journal of Applied Physics, 2014, 115, 194301.	2.5	106
99	Microstructure and microhardness of an Alî—¸Fe alloy subjected to severe plastic deformation and aging. Scripta Materialia, 1998, 10, 691-698.	0.5	105
100	Microstructure and mechanical properties at different length scales and strain rates of nanocrystalline tantalum produced by high-pressure torsion. Acta Materialia, 2011, 59, 2423-2436.	7.9	105
101	The formation of PSB-like shear bands in cyclically deformed ultrafine grained copper processed by ECAP. Scripta Materialia, 2003, 48, 1605-1609.	5.2	103
102	Developing superplastic properties in an aluminum alloy through severe plastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 272, 63-72.	5.6	101
103	Grain size engineering of bcc refractory metals: Top-down and bottom-upâ€”Application to tungsten. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 467, 33-43.	5.6	100
104	Room-Temperature Superplasticity in an Ultrafine-Grained Magnesium Alloy. Scientific Reports, 2017, 7, 2662.	3.3	100
105	Formation of submicrometre-grained structure in magnesium alloy due to high plastic strains. Journal of Materials Science Letters, 1990, 9, 1445-1447.	0.5	99
106	Annealing behaviour of nanostructured carbon steel produced by severe plastic deformation. Scripta Materialia, 2003, 49, 947-952.	5.2	99
107	High-strain-rate superplasticity from nanocrystalline Al alloy 1420 at low temperatures. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2001, 81, 37-48.	0.6	97
108	Enhanced mechanical properties and electrical conductivity in ultrafine-grained Al alloy processed via ECAP-PC. Journal of Materials Science, 2013, 48, 4501-4509.	3.7	97

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109	Evidence of Î± â†' Ï‰ phase transition in titanium after high pressure torsion. International Journal of Materials Research, 2008, 99, 36-41.	0.3	96
110	Atomic-level structural modifications induced by severe plastic shear deformation in bulk metallic glasses. Scripta Materialia, 2011, 64, 81-84.	5.2	95
111	Reduction of friction coefficient of ultrafine-grained CP titanium. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 371, 313-317.	5.6	94
112	Microstructure of Aluminum-Iron Alloys Subjected to Severe Plastic Deformation. Scripta Materialia, 1998, 38, 1511-1516.	5.2	93
113	Tensile superplasticity in a nanocrystalline nickel aluminide. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1998, 252, 174-178.	5.6	93
114	Paradoxes of Severe Plastic Deformation. Advanced Engineering Materials, 2003, 5, 296-300.	3.5	93
115	Strain rate sensitivity studies in an ultrafine-grained Alâ€“30wt.% Zn alloy using micro- and nanoindentation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 543, 117-120.	5.6	92
116	Grain Boundary Phenomena in an Ultrafineâ€Grained Alâ€“Zn Alloy with Improved Mechanical Behavior for Microâ€Devices. Advanced Engineering Materials, 2014, 16, 1000-1009.	3.5	92
117	Consolidation of nanometer sized powders using severe plastic torsional straining. Scripta Materialia, 1998, 10, 45-54.	0.5	91
118	Annealing treatments to enhance thermal and mechanical stability of ultrafine-grained metals produced by severe plastic deformation. International Journal of Materials Research, 2003, 94, 1079-1083.	0.8	91
119	Enhanced Strength and Ductility of Ultrafineâ€Grained Ti Processed by Severe Plastic Deformation. Advanced Engineering Materials, 2010, 12, 803-807.	3.5	91
120	Gradual softening of Alâ€“Zn alloys during high-pressure torsion. Materials Letters, 2012, 84, 63-65.	2.6	90
121	Strengthening and grain refinement in an Al-6061 metal matrix composite through intense plastic straining. Scripta Materialia, 1998, 40, 117-122.	5.2	89
122	Microstructures and hardness of ultrafine-grained Ni3Al. Acta Metallurgica Et Materialia, 1993, 41, 2953-2962.	1.8	88
123	Enhanced grain growth in an Al-Mg alloy with ultrafine grain size. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1996, 216, 41-46.	5.6	88
124	Nanostructured bulk Al90Fe5Nd5 prepared by cold consolidation of gas atomised powder using severe plastic deformation. Scripta Materialia, 2002, 46, 711-716.	5.2	88
125	Cyclic deformation behavior and fatigue lives of ultrafine-grained Ti-6AL-4V ELI alloy for medical use. International Journal of Fatigue, 2009, 31, 322-331.	5.7	88
126	Microstructure and mechanical properties of titanium (Grade 4) processed by high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 493, 190-194.	5.6	87

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127	Effect of cold rolling on microstructure and mechanical properties of copper subjected to ECAP with various numbers of passes. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 554, 105-115.	5.6	87
128	Effect of Mg on microstructure and mechanical properties of Al-Mg alloys produced by high pressure torsion. Scripta Materialia, 2019, 159, 137-141.	5.2	87
129	ParticularitÃ©s de la structure et des transformations de phase dans les alliages Ã mÃ©moire de forme Ã base de TiNi aprÃ¨s dÃ©formation plastique intense. Annales De Chimie: Science Des Materiaux, 2002, 27, 77-88.	0.4	86
130	Ultrafine Grained Structures Resulting from SPDâ€Induced Phase Transformation in Alâ€“Zn Alloys. Advanced Engineering Materials, 2015, 17, 1821-1827.	3.5	86
131	Achieving Exceptional Grain Refinement through Severe Plastic Deformation: New Approaches for Improving the Processing Technology. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 2942-2951.	2.2	85
132	Processing of nanostructured nickel by severe plastic deformation consolidation of ball-milled powder. Scripta Materialia, 1996, 34, 1443-1448.	5.2	84
133	Effects of irradiation on the microstructure and mechanical properties of nanostructured materials. Philosophical Magazine, 2005, 85, 723-735.	1.6	84
134	Enhanced fatigue strength of commercially pure Ti processed by severe plastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 503, 92-95.	5.6	84
135	Significance of Microstructural Control for Superplastic Deformation and Forming. Materials Transactions, JIM, 1996, 37, 336-339.	0.9	82
136	Deformation behavior of nanostructured aluminum alloy processed by severe plastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 319-321, 877-881.	5.6	82
137	Enhanced ion irradiation resistance of bulk nanocrystalline TiNi alloy. Scripta Materialia, 2008, 59, 1027-1030.	5.2	82
138	Processing of nanostructured metals and alloys via plastic deformation. MRS Bulletin, 2010, 35, 977-981.	3.5	82
139	Grain Boundary Segregation in UFG Alloys Processed by Severe Plastic Deformation. Advanced Engineering Materials, 2012, 14, 968-974.	3.5	82
140	Dynamic deformation and failure of ultrafine-grained titanium. Acta Materialia, 2017, 125, 210-218.	7.9	82
141	On the quantitative evaluation of superplastic flow mechanisms. Acta Metallurgica, 1983, 31, 2121-2128.	2.1	81
142	On the grain boundary statistics in metals and alloys susceptible to annealing twinning. Acta Metallurgica Et Materialia, 1994, 42, 1785-1804.	1.8	81
143	Producing nanoscale microstructures through severe plastic deformation. Jom, 2000, 52, 27-28.	1.9	81
144	Nanocrystalline Î²-Ti alloy with high hardness, low Young's modulus and excellent in vitro biocompatibility for biomedical applications. Materials Science and Engineering C, 2013, 33, 3530-3536.	7.3	81

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145	Anisotropy of mechanical properties in high-strength ultra-fine-grained pure Ti processed via a complex severe plastic deformation route. Scripta Materialia, 2011, 64, 69-72.	5.2	80
146	Factors influencing the flow and hardness of materials with ultrafine grain sizes. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1998, 78, 203-216.	0.6	78
147	Characteristics of superplasticity in an ultrafine-grained aluminum alloy processed by ECA pressing. Scripta Materialia, 2003, 49, 467-472.	5.2	78
148	Grain size and reversible beta-to-omega phase transformation in a Ti alloy. Scripta Materialia, 2010, 63, 613-616.	5.2	75
149	Residual stress, strain and faults in nanocrystalline palladium and copper. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1995, 204, 7-11.	5.6	74
150	The effect of equal-channel angular pressing on the structure and mechanical behavior of Tiâ€“6Alâ€“4V alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 387-389, 805-808.	5.6	74
151	Random disclination ensembles in ultrafine-grained materials produced by severe plastic deformation. Scripta Materialia, 1996, 34, 729-734.	5.2	73
152	Strength and fatigue properties enhancement in ultrafine-grained Ti produced by severe plastic deformation. Journal of Materials Science, 2008, 43, 7354-7359.	3.7	73
153	Disclination-structural unit model of grain boundaries. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1989, 59, 1113-1118.	0.6	72
154	On the microstructural aspects of the nonhomogeneity of superplastic deformation at the level of grain groups. Acta Metallurgica Et Materialia, 1994, 42, 119-126.	1.8	72
155	Enhanced fatigue properties of ultrafine-grained Ti rods processed by ECAP-Conform. Journal of Materials Science, 2012, 47, 7777-7781.	3.7	72
156	Developing a strategy for the processing of age-hardenable alloys by ECAP at room temperature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 516, 248-252.	5.6	71
157	The Art and Science of Tailoring Materials by Nanostructuring for Advanced Properties Using SPD Techniques. Advanced Engineering Materials, 2010, 12, 677-691.	3.5	71
158	Requirements for achieving high-strain-rate superplasticity in cast aluminium alloys. Philosophical Magazine Letters, 1998, 78, 313-316.	1.2	70
159	Transition from poor ductility to room-temperature superplasticity in a nanostructured aluminum alloy. Scientific Reports, 2018, 8, 6740.	3.3	70
160	Structure and properties of superfine-grained iron compacted out of ultradisperse powder. Acta Metallurgica Et Materialia, 1991, 39, 3193-3197.	1.8	69
161	Effect of Equal Channel Angular Pressing on the Fracture Behavior of Commercially Pure Titanium. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 727-733.	2.2	69
162	Nanostructuring of TiNi Alloy by SPD Processing for Advanced Properties. Materials Transactions, 2008, 49, 97-101.	1.2	68

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163	Superior Strength in Ultrafine-Grained Materials Produced by SPD Processing. Materials Transactions, 2014, 55, 13-18.	1.2	66
164	Enhanced low-temperature impact toughness of nanostructured Ti. Applied Physics Letters, 2006, 88, 041905.	3.3	65
165	Direction of a grain-boundary phase in submicrometre-grained iron. Philosophical Magazine Letters, 1990, 62, 253-256.	1.2	63
166	MÃ¶ssbauer analysis of submicrometer grained iron. Scripta Metallurgica Et Materialia, 1991, 25, 2717-2722.	1.0	63
167	The new trends in fabrication of bulk nanostructured materials by SPD processing. Journal of Materials Science, 2007, 42, 1483-1490.	3.7	63
168	Nanostructured SPD Processed Titanium for Medical Implants. Materials Science Forum, 0, 584-586, 49-54.	0.3	63
169	Deformation-driven formation of equilibrium phases in the Cuâ€“Ni alloys. Journal of Materials Science, 2012, 47, 360-367.	3.7	63
170	Ultra-severe plastic deformation: Evolution of microstructure, phase transformation and hardness in immiscible magnesium-based systems. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 701, 158-166.	5.6	62
171	Influence of ultra-fine grain structure on corrosion behaviour of biodegradable Mg-1Ca alloy. Corrosion Science, 2020, 163, 108303.	6.6	62
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