Terence G Langdon

List of Publications by Year
in descending order

1,012 papers	68,649 citations	704 125 h-index	1834 216 g-index
1039 all docs	1039 docs citations	1039 times ranked	12457 citing authors

#	Article	IF	Citations
1	Principles of equal-channel angular pressing as a processing tool for grain refinement. Progress in Materials Science, 2006, 51, 881-981.	16.0	3,680
2	Using high-pressure torsion for metal processing: Fundamentals and applications. Progress in Materials Science, 2008, 53, 893-979.	16.0	2,579
3	Principle of equal-channel angular pressing for the processing of ultra-fine grained materials. Scripta Materialia, 1996, 35, 143-146.	2.6	1,683
4	Producing bulk ultrafine-grained materials by severe plastic deformation. Jom, 2006, 58, 33-39.	0.9	1,350
5	The process of grain refinement in equal-channel angular pressing. Acta Materialia, 1998, 46, 3317-3331.	3.8	1,166
6	The shearing characteristics associated with equal-channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1998, 257, 328-332.	2.6	885
7	An investigation of microstructural evolution during equal-channel angular pressing. Acta Materialia, 1997, 45, 4733-4741.	3.8	778
8	Experimental parameters influencing grain refinement and microstructural evolution during high-pressure torsion. Acta Materialia, 2003, 51, 753-765.	3.8	717
9	Twenty-five years of ultrafine-grained materials: Achieving exceptional properties through grain refinement. Acta Materialia, 2013, 61, 7035-7059.	3.8	649
10	Improving the mechanical properties of magnesium and a magnesium alloy through severe plastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 300, 142-147.	2.6	606
11	A unified approach to grain boundary sliding in creep and superplasticity. Acta Metallurgica Et Materialia, 1994, 42, 2437-2443.	1.9	499
12	The transition from dislocation climb to viscous glide in creep of solid solution alloys. Acta Metallurgica, 1974, 22, 779-788.	2.1	472
13	Microhardness measurements and the Hall-Petch relationship in an Alî—¸Mg alloy with submicrometer grain size. Acta Materialia, 1996, 44, 4619-4629.	3.8	435
14	Equal-channel angular pressing of commercial aluminum alloys: Grain refinement, thermal stability and tensile properties. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2000, 31, 691-701.	1.1	408
15	The mechanical properties of superplastic materials. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1982, 13, 689-701.	1.4	404
16	Influence of channel angle on the development of ultrafine grains in equal-channel angular pressing. Acta Materialia, 1998, 46, 1589-1599.	3.8	398
17	Review: Processing of metals by equal-channel angular pressing. Journal of Materials Science, 2001, 36, 2835-2843.	1.7	391
18	Seventy-five years of superplasticity: historic developments and new opportunities. Journal of Materials Science, 2009, 44, 5998-6010.	1.7	366

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19	Creep of ceramics. Journal of Materials Science, 1983, 18, 1-50.	1.7	354
20	Developing superplasticity in a magnesium alloy through a combination of extrusion and ECAP. Acta Materialia, 2003, 51, 3073-3084.	3.8	351
21	Grain boundary sliding revisited: Developments in sliding over four decades. Journal of Materials Science, 2006, 41, 597-609.	1.7	349
22	Producing Bulk Ultrafine-Grained Materials by Severe Plastic Deformation: Ten Years Later. Jom, 2016, 68, 1216-1226.	0.9	346
23	The evolution of homogeneity in processing by high-pressure torsion. Acta Materialia, 2007, 55, 203-212.	3.8	337
24	Grain refinement and superplasticity in an aluminum alloy processed by high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 393, 344-351.	2.6	325
25	Influence of scandium and zirconium on grain stability and superplastic ductilities in ultrafine-grained Alâ€"Mg alloys. Acta Materialia, 2002, 50, 553-564.	3.8	319
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.	1.2	317
27	The principles of grain refinement in equal-channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 462, 3-11.	2.6	311
28	An investigation of microstructural stability in an AlMg alloy with submicrometer grain size. Acta Materialia, 1996, 44, 2973-2982.	3.8	301
29	Tailoring stacking fault energy for high ductility and high strength in ultrafine grained Cu and its alloy. Applied Physics Letters, 2006, 89, 121906.	1.5	295
30	OBSERVATIONS OF HIGH STRAIN RATE SUPERPLASTICITY IN COMMERCIAL ALUMINUM ALLOYS WITH ULTRAFINE GRAIN SIZES. Scripta Materialia, 1997, 37, 1945-1950.	2.6	294
31	Superplastic forming at high strain rates after severe plastic deformation. Acta Materialia, 2000, 48, 3633-3640.	3.8	294
32	Grain boundary sliding as a deformation mechanism during creep. Philosophical Magazine and Journal, 1970, 22, 689-700.	1.8	288
33	Performance and applications of nanostructured materials produced by severe plastic deformation. Scripta Materialia, 2004, 51, 825-830.	2.6	284
34	Microhardness and microstructural evolution in pure nickel during high-pressure torsion. Scripta Materialia, 2001, 44, 2753-2758.	2.6	282
35	Fundamentals of Superior Properties in Bulk NanoSPD Materials. Materials Research Letters, 2016, 4, 1-21.	4.1	280
36	Deformation mechanisms in h.c.p. metals at elevated temperaturesâ€"I. Creep behavior of magnesium. Acta Metallurgica, 1981, 29, 1969-1982.	2.1	277

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37	Achieving High Strength and High Ductility in Precipitation-Hardened Alloys. Advanced Materials, 2005, 17, 1599-1602.	11.1	273
38	Using finite element modeling to examine the flow processes in quasi-constrained high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 8198-8204.	2.6	273
39	Using finite element modeling to examine the temperature distribution in quasi-constrained high-pressure torsion. Acta Materialia, 2012, 60, 3190-3198.	3.8	271
40	Factors influencing the equilibrium grain size in equal-channel angular pressing: Role of Mg additions to aluminum. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1998, 29, 2503-2510.	1.1	270
41	An examination of the breakdown in creep by viscous glide in solid solution alloys at high stress levels. Acta Metallurgica, 1982, 30, 2181-2196.	2.1	265
42	Microstructural characteristics of ultrafine-grained aluminum produced using equal-channel angular pressing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1998, 29, 2245-2252.	1.1	257
43	Relationship between texture and low temperature superplasticity in an extruded AZ31 Mg alloy processed by ECAP. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 402, 250-257.	2.6	257
44	Influence of equal-channel angular pressing on precipitation in an Alâ€"Znâ€"Mgâ€"Cu alloy. Acta Materialia, 2009, 57, 3123-3132.	3.8	253
45	Influence of stacking-fault energy on microstructural characteristics of ultrafine-grain copper and copperâ€"zinc alloys. Acta Materialia, 2008, 56, 809-820.	3.8	251
46	Deformation mechanism maps based on grain size. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1974, 5, 2339-2345.	1.4	249
47	Creep of ceramics. Journal of Materials Science, 1988, 23, 1-20.	1.7	248
48	An evaluation of the strain contributed by grain boundary sliding in superplasticity. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1994, 174, 225-230.	2.6	244
49	Influence of specimen dimensions on the tensile behavior of ultrafine-grained Cu. Scripta Materialia, 2008, 59, 627-630.	2.6	241
50	Improvement of mechanical properties for Al alloys using equal-channel angular pressing. Journal of Materials Processing Technology, 2001, 117, 288-292.	3.1	239
51	Development of a multi-pass facility for equal-channel angular pressing to high total strains. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 281, 82-87.	2.6	234
52	The evolution of homogeneity and grain refinement during equal-channel angular pressing: A model for grain refinement in ECAP. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 398, 66-76.	2.6	232
53	Factors influencing the shearing patterns in equal-channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 332, 97-109.	2.6	226
54	Effect of annealing on mechanical properties of a nanocrystalline CoCrFeNiMn high-entropy alloy processed by high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 676, 294-303.	2.6	225

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55	The potential for scaling ECAP: effect of sample size on grain refinement and mechanical properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 318, 34-41.	2.6	222
56	Deformation mechanisms in h.c.p. metals at elevated temperaturesâ€"II. Creep behavior of a Mg-0.8% Al solid solution alloy. Acta Metallurgica, 1982, 30, 1157-1170.	2.1	221
57	Optimizing the rotation conditions for grain refinement in equal-channel angular pressing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1998, 29, 2011-2013.	1.1	221
58	Using ECAP to achieve grain refinement, precipitate fragmentation and high strain rate superplasticity in a spray-cast aluminum alloy. Acta Materialia, 2003, 51, 6139-6149.	3.8	219
59	Principles of superplasticity in ultrafine-grained materials. Journal of Materials Science, 2007, 42, 1782-1796.	1.7	219
60	Orientation imaging microscopy of ultrafine-grained nickel. Scripta Materialia, 2002, 46, 575-580.	2.6	217
61	Nanomaterials by severe plastic deformation: review of historical developments and recent advances. Materials Research Letters, 2022, 10, 163-256.	4.1	215
62	Processing of a low-carbon steel by equal-channel angular pressing. Acta Materialia, 2002, 50, 1359-1368.	3.8	213
63	An investigation of microstructure and grain-boundary evolution during ECA pressing of pure aluminum. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2002, 33, 2173-2184.	1.1	211
64	Microstructural evolution in high purity aluminum processed by ECAP. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 524, 143-150.	2.6	209
65	Influence of pressing temperature on microstructural development in equal-channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 287, 100-106.	2.6	200
66	Creep and substructure formation in an Al-5% Mg solid solution alloy. Acta Metallurgica, 1981, 29, 1495-1507.	2.1	199
67	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.	1.2	199
68	Using equal-channel angular pressing for refining grain size. Jom, 2000, 52, 30-33.	0.9	199
69	Microstructural evolution in commercial purity aluminum during high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 410-411, 277-280.	2.6	198
70	Influence of specimen dimensions and strain measurement methods on tensile stressâ€"strain curves. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 525, 68-77.	2.6	198
71	Factors influencing ductility in the superplastic Zn-22 Pct Al eutectoid. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1977, 8, 933-938.	1.4	196
72	An overview: Fatigue behaviour of ultrafine-grained metals and alloys. International Journal of Fatigue, 2006, 28, 1001-1010.	2.8	188

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73	The microstructural characteristics of ultrafine-grained nickel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 391, 377-389.	2.6	185
74	The effect of severe plastic deformation on precipitation in supersaturated Alâ€“Znâ€“Mg alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 460-461, 77-85.	2.6	185
75	Thermal stability of ultrafine-grained aluminum in the presence of Mg and Zr additions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 265, 188-196.	2.6	183
76	The Innovation Potential of Bulk Nanostructured Materials. Advanced Engineering Materials, 2007, 9, 527-533.	1.6	183
77	Influence of stacking fault energy on nanostructure formation under high pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 410-411, 188-193.	2.6	179
78	The processing of difficult-to-work alloys by ECAP with an emphasis on magnesium alloys. Acta Materialia, 2007, 55, 4769-4779.	3.8	179
79	Grain refinement and mechanical behavior of a magnesium alloy processed by ECAP. Journal of Materials Science, 2010, 45, 4827-4836.	1.7	179
80	The fundamentals of nanostructured materials processed by severe plastic deformation. Jom, 2004, 56, 58-63.	0.9	176
81	An investigation of hardness homogeneity throughout disks processed by high-pressure torsion. Acta Materialia, 2011, 59, 308-316.	3.8	174
82	Microstructures and microhardness of an aluminum alloy and pure copper after processing by high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 410-411, 422-425.	2.6	173
83	Influence of stacking fault energy on microstructural development in equal-channel angular pressing. Journal of Materials Research, 1999, 14, 4044-4050.	1.2	172
84	Principles of grain refinement and superplastic flow in magnesium alloys processed by ECAP. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 501, 105-114.	2.6	171
85	Developing grain refinement and superplasticity in a magnesium alloy processed by high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 488, 117-124.	2.6	170
86	Experimental Evidence for Grain-Boundary Sliding in Ultrafine-Grained Aluminum Processed by Severe Plastic Deformation. Advanced Materials, 2006, 18, 34-39.	11.1	169
87	The evolution of homogeneity in an aluminum alloy processed using high-pressure torsion. Acta Materialia, 2008, 56, 5168-5176.	3.8	167
88	Creep at low stress levels in the superplastic Zn-22% Al eutectoid. Acta Metallurgica, 1975, 23, 117-124.	2.1	166
89	Developing high-pressure torsion for use with bulk samples. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 406, 268-273.	2.6	163
90	Influence of ECAP on precipitate distributions in a spray-cast aluminum alloy. Acta Materialia, 2005, 53, 749-758.	3.8	162

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91	Tougher ultrafine grain Cu via high-angle grain boundaries and low dislocation density. Applied Physics Letters, 2008, 92, .	1.5	158
92	Determining the optimal stacking fault energy for achieving high ductility in ultrafine-grained Cuâ€"Zn alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 493, 123-129.	2.6	157
93	Spherical nanoindentation creep behavior of nanocrystalline and coarse-grained CoCrFeMnNi high-entropy alloys. Acta Materialia, 2016, 109, 314-322.	3.8	156
94	Microstructure and properties of pure titanium processed by equal-channel angular pressing at room temperature. Scripta Materialia, 2008, 59, 542-545.	2.6	155
95	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.	3.8	153
96	The use of severe plastic deformation for microstructural control. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 324, 82-89.	2.6	153
97	The significance of strain reversals during processing by high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 498, 341-348.	2.6	153
98	Structural ceramics. Progress in Materials Science, 1976, 21, 171-425.	16.0	152
99	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.	1.9	150
100	Observations of grain boundary structure in submicrometer-grained Cu and Ni using high-resolution electron microscopy. Journal of Materials Research, 1998, 13, 446-450.	1.2	150
101	Creep behaviour in the superplastic Pbâ€"62% Sn eutectic. Philosophical Magazine and Journal, 1975, 32, 697-709.	1.8	149
102	Advances in ultrafine-grained materials. Materials Today, 2013, 16, 85-93.	8.3	148
103	Influence of pressing speed on microstructural development in equal-channel angular pressing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1999, 30, 1989-1997.	1.1	144
104	Evolution of defect structures during cold rolling of ultrafine-grained Cu and Cuâ€"Zn alloys: Influence of stacking fault energy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 474, 342-347.	2.6	144
105	The activation energies associated with superplastic flow. Acta Metallurgica, 1975, 23, 1443-1450.	2.1	141
106	The role of stacking faults and twin boundaries in grain refinement of a Cuâ€"Zn alloy processed by high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 4959-4966.	2.6	141
107	Ultrafine grains and the Hallâ€"Petch relationship in an Alâ€"Mgâ€"Si alloy processed by high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 532, 139-145.	2.6	141
108	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.	2.6	140

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109	Enhanced strengthâ€“ductility synergy in nanostructured Cu and Cuâ€“Al alloys processed by high-pressure torsion and subsequent annealing. Scripta Materialia, 2012, 66, 227-230.	2.6	140
110	Effect of Mg addition on microstructure and mechanical properties of aluminum. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 387-389, 55-59.	2.6	139
111	Evidence for exceptional low temperature ductility in polycrystalline magnesium processed by severe plastic deformation. Acta Materialia, 2017, 122, 322-331.	3.8	139
112	Principles of grain refinement in magnesium alloys processed by equal-channel angular pressing. Journal of Materials Science, 2009, 44, 4758-4762.	1.7	137
113	Microstructure and properties of a CoCrFeNiMn high-entropy alloy processed by equal-channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 705, 411-419.	2.6	137
114	The physics of superplastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1991, 137, 1-11.	2.6	136
115	Hardening of an Al0.3CoCrFeNi high entropy alloy via high-pressure torsion and thermal annealing. Materials Letters, 2015, 151, 126-129.	1.3	135
116	Evolution of microstructural homogeneity in copper processed by high-pressure torsion. Scripta Materialia, 2010, 63, 560-563.	2.6	134
117	The effect of dislocation density on the interactions between dislocations and twin boundaries in nanocrystalline materials. Acta Materialia, 2012, 60, 3181-3189.	3.8	134
118	A two-step processing route for achieving a superplastic forming capability in dilute magnesium alloys. Scripta Materialia, 2002, 47, 255-260.	2.6	133
119	Influence of stacking fault energy on deformation mechanism and dislocation storage capacity in ultrafine-grained materials. Scripta Materialia, 2009, 60, 52-55.	2.6	133
120	Superplasticity in ceramics. Journal of Materials Science, 1990, 25, 2275-2286.	1.7	132
121	Optimizing the procedure of equal-channel angular pressing for maximum superplasticity. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 297, 111-118.	2.6	132
122	Principles of ECAPâ€“Conform as a continuous process for achieving grain refinement: Application to an aluminum alloy. Acta Materialia, 2010, 58, 1379-1386.	3.8	132
123	High-Strain-Rate Superplasticity in Metallic Materials and the Potential for Ceramic Materials.. ISIJ International, 1996, 36, 1423-1438.	0.6	131
124	Identifiying creep mechanisms at low stresses. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 283, 266-273.	2.6	131
125	Grain refinement of pure nickel using equal-channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 325, 54-58.	2.6	130
126	An investigation of intercrystalline and interphase boundary sliding in the superplastic Pb-62% Sn eutectic. Acta Metallurgica, 1979, 27, 251-257.	2.1	129

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127	Fracture processes in superplastic flow. Metal Science, 1982, 16, 175-183.	0.7	129
128	A new constitutive relationship for the homogeneous deformation of metals over a wide range of strain. Acta Materialia, 2004, 52, 3555-3563.	3.8	129
129	Exceptional superplasticity in an AZ61 magnesium alloy processed by extrusion and ECAP. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 420, 240-244.	2.6	128
130	Microstructural evolution in a two-phase alloy processed by high-pressure torsion. Acta Materialia, 2010, 58, 919-930.	3.8	128
131	Influence of magnesium on grain refinement and ductility in a dilute AlÃ¢Â€Â“Sc alloy. Acta Materialia, 2001, 49, 3829-3838.	3.8	125
132	Unusual super-ductility at room temperature in an ultrafine-grained aluminum alloy. Journal of Materials Science, 2010, 45, 4718-4724.	1.7	125
133	The influence of stacking fault energy on the mechanical properties of nanostructured Cu and Cuâ€“Al alloys processed by high-pressure torsion. Scripta Materialia, 2011, 64, 954-957.	2.6	124
134	An investigation of grain-boundary sliding during creep. Journal of Materials Science, 1967, 2, 313-323.	1.7	123
135	High strain rate superplasticity in an Al-Mg alloy containing scandium. Scripta Materialia, 1998, 38, 1851-1856.	2.6	123
136	Fabrication of bulk ultrafine-grained materials through intense plastic straining. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1998, 29, 2237-2243.	1.1	123
137	Influence of preliminary extrusion conditions on the superplastic properties of a magnesium alloy processed by ECAP. Acta Materialia, 2007, 55, 1083-1091.	3.8	122
138	A model for diffusional cavity growth in superplasticity. Acta Metallurgica, 1987, 35, 1089-1101.	2.1	121
139	The fabrication of graphene-reinforced Al-based nanocomposites using high-pressure torsion. Acta Materialia, 2019, 164, 499-511.	3.8	121
140	Influence of stacking fault energy on the minimum grain size achieved in severe plastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 463, 22-26.	2.6	119
141	Microstructural evolution in an Al-6061 alloy processed by high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 4864-4869.	2.6	119
142	Influence of rolling on the superplastic behavior of an Al-Mg-Sc alloy after ECAP. Scripta Materialia, 2001, 44, 759-764.	2.6	118
143	An investigation of the role of a liquid phase in Alî—¸Cuî—¸Mg metal matrix composites exhibiting high strain rate superplasticity. Acta Metallurgica Et Materialia, 1994, 42, 1739-1745.	1.9	117
144	Development of fine grained structures using severe plastic deformation. Materials Science and Technology, 2000, 16, 1239-1245.	0.8	116

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145	The influence of strain rate on ductility in the superplastic Znâ€“22% Al eutectoid. Philosophical Magazine and Journal, 1975, 32, 1269-1271.	1.8	113
146	Creep behavior of copper at intermediate temperaturesâ€”I. Mechanical characteristics. Acta Metallurgica, 1989, 37, 843-852.	2.1	113
147	Evolution of microstructure and microtexture in fcc metals during high-pressure torsion. Journal of Materials Science, 2007, 42, 1517-1528.	1.7	113
148	Microstructural and Mechanical Characteristics of AZ61 Magnesium Alloy Processed by High-Pressure Torsion. Materials Transactions, 2008, 49, 76-83.	0.4	112
149	The processing of pure titanium through multiple passes of ECAP at room temperature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 6335-6339.	2.6	111
150	Microstructural evolution and mechanical properties of a two-phase Cuâ€“Ag alloy processed by high-pressure torsion to ultrahigh strains. Acta Materialia, 2011, 59, 2783-2796.	3.8	110
151	Deformation mechanism maps for superplastic materials. Scripta Metallurgica, 1976, 10, 759-762.	1.2	109
152	The development of superplastic ductilities and microstructural homogeneity in a magnesium ZK60 alloy processed by ECAP. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 430, 151-156.	2.6	109
153	A comparison of microstructures and mechanical properties in a Cuâ€“Zr alloy processed using different SPD techniques. Journal of Materials Science, 2013, 48, 4653-4660.	1.7	108
154	Structural ceramics. Progress in Materials Science, 1976, 21, 171-285.	16.0	107
155	An evaluation of the roles of intercrystalline and interphase boundary sliding in two-phase superplastic alloys. Acta Metallurgica, 1982, 30, 285-296.	2.1	107
156	The significance of slippage in processing by high-pressure torsion. Scripta Materialia, 2009, 60, 9-12.	2.6	107
157	Segregation of solute elements at grain boundaries in an ultrafine grained Alâ€“Znâ€“Mgâ€“Cu alloy. Ultramicroscopy, 2011, 111, 500-505.	0.8	107
158	Influence of grain size on deformation mechanisms: An extension to nanocrystalline materials. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 409, 234-242.	2.6	106
159	Bulk Nanostructured Metals for Innovative Applications. Jom, 2012, 64, 1134-1142.	0.9	106
160	Significance of adiabatic heating in equal-channel angular pressing. Scripta Materialia, 1999, 41, 791-796.	2.6	104
161	The application of equal-channel angular pressing to an aluminum single crystal. Acta Materialia, 2004, 52, 1387-1395.	3.8	103
162	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.	2.6	101

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163	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.	1.2	101
164	Improving the superplastic properties of a two-phase Mgâ€"8% Li alloy through processing by ECAP. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 410-411, 439-442.	2.6	100
165	Wear resistance and electroconductivity in copper processed by severe plastic deformation. Wear, 2013, 305, 89-99.	1.5	100
166	Defect structure and hardness in nanocrystalline CoCrFeMnNi High-Entropy Alloy processed by High-Pressure Torsion. Journal of Alloys and Compounds, 2017, 711, 143-154.	2.8	100
167	Spall strength dependence on grain size and strain rate in tantalum. Acta Materialia, 2018, 158, 313-329.	3.8	100
168	Microtexture and microstructure evolution during processing of pure aluminum by repetitive ECAP. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 429, 137-148.	2.6	99
169	The effect of surface configuration on grain boundary sliding. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 1972, 3, 797-801.	1.0	98
170	Creep behavior of an Al-6061 metal matrix composite reinforced with alumina particulates. Acta Materialia, 1997, 45, 4797-4806.	3.8	98
171	Three-dimensional shear-strain patterns induced by high-pressure torsion and their impact on hardness evolution. Acta Materialia, 2011, 59, 3903-3914.	3.8	98
172	Influence of a round corner die on flow homogeneity in ECA pressing. Scripta Materialia, 2003, 48, 1-4.	2.6	97
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