The role of back pressure in the processing of pure alum
pressing

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Citation Report

#	Article	IF	Citations
1	Using high-pressure torsion for metal processing: Fundamentals and applications. Progress in Materials Science, 2008, 53, 893-979.	32.8	2,579
2	Superplastic properties of Pbâ€“62%Sn eutectic alloy after equal channel angular pressing (ECAP). Journal of Materials Processing Technology, 2008, 201, 441-444.	6.3	7
3	Influence of stacking-fault energy on microstructural characteristics of ultrafine-grain copper and copperâ€“zinc alloys. Acta Materialia, 2008, 56, 809-820.	7.9	251
4	The evolution of homogeneity in an aluminum alloy processed using high-pressure torsion. Acta Materialia, 2008, 56, 5168-5176.	7.9	167
5	The evolution of homogeneity on longitudinal sections during processing by ECAP. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 480, 449-455.	5.6	64
6	Evaluating plastic anisotropy in two aluminum alloys processed by equal-channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 497, 206-211.	5.6	43
7	Three-dimensional representations of hardness distributions after processing by high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 503, 71-74.	5.6	56
8	The evolution of damage in perfect-plastic and strain hardening materials processed by equal-channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 518, 124-131.	5.6	40
9	Processing of a magnesium alloy by equal-channel angular pressing using a back-pressure. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 527, 205-211.	5.6	58
10	Using Severe Plastic Deformation for the Processing of Advanced Engineering Materials. Materials Transactions, 2009, 50, 1613-1619.	1.2	34
11	Principles of ECAPâ€“Conform as a continuous process for achieving grain refinement: Application to an aluminum alloy. Acta Materialia, 2010, 58, 1379-1386.	7.9	132
12	Effect of die channel angle, friction and back pressure in the equal channel angular pressing using 3D finite element simulation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 1230-1235.	5.6	112
13	Processing of a duplex stainless steel by equal channel angular extrusion. Revista Materia, 2010, 15, 345-354.	0.2	4
14	Effect of a Special ECAP Die Configuration on Microhardness Distributions in Pure Aluminum. Materials Science Forum, 2010, 667-669, 69-74.	0.3	1
15	The Evolution of Homogeneity during Processing of Aluminium Alloys by HPT. Materials Science Forum, 2010, 667-669, 277-282.	0.3	3
16	Hardness homogeneity on longitudinal and transverse sections of an aluminum alloy processed by ECAP. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 3833-3840.	5.6	67
17	An experimental evaluation of a special ECAP die containing two equal arcs of curvature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 4173-4179.	5.6	20
18	The development of hardness homogeneity in a Cuâ€“Zr alloy processed by equal-channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 556, 526-532.	5.6	39

#	Article	IF	Citations
19	Plastic deformation of Al85Ni10La5 by equal channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 558, 64-69.	5.6	3
20	Repetitive forging (RF) using inclined punches as a new bulk severe plastic deformation method. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 558, 150-157.	5.6	31
21	A novel technique to increase strain distribution homogeneity for ECAPed materials. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 535, 115-121.	5.6	42
22	Deformation twinning in nanocrystalline materials. Progress in Materials Science, 2012, 57, 1-62.	32.8	1,065
23	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.	5.6	49
24	Microstructural evolution in a 5024 aluminum alloy processed by ECAP with and without back pressure. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 560, 178-192.	5.6	59
26	Mechanical, Metallurgical Characteristics and Corrosion Properties of Equal Channel Angular Pressing of Duplex Stainless Steel. Advanced Materials Research, 0, 717, 9-14.	0.3	4
27	Investigation of a new route for equal channel angular pressing process using three-dimensional finite element method. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2014, 228, 765-774.	2.4	9
28	An examination of the saturation microstructures achieved in ultrafine-grained metals processed by high-pressure torsion. Journal of Materials Research and Technology, 2014, 3, 319-326.	5.8	15
29	Mechanical and Microstructural Evaluation of InsituAluminium Titanium Boride Composite Processed by Severe Plastic Deformation. , 2014, 5, 281-288.		8
30	Numerical study of the effect of prior deformation history on texture evolution during equal channel angular pressing. Computational Materials Science, 2014, 81, 68-78.	3.0	8
31	Metal Matrix Composites Reinforced by Nano-Particlesâ€"A Review. Metals, 2014, 4, 65-83.	2.3	772
32	Evaluating the Room Temperature ECAP Processing of a NiTi Alloy via Simulation and Experiments. Advanced Engineering Materials, 2015, 17, 532-538.	3.5	9
33	An evaluation of the saturation hardness in an ultrafine-grained aluminum 7075 alloy processed using different techniques. Journal of Materials Science, 2015, 50, 4357-4365.	3.7	38
34	Improving homogeneity of ultrafine-grained/nanostructured materials produced by ECAP using a bevel-edge punch. Journal of Materials Science, 2015, 50, 1513-1522.	3.7	23
35	Die Design Modification to Improve Workability during Equal Channel Angular Pressing. Advanced Engineering Materials, 2016, 18, 1469-1477.	3.5	7
36	Microstructure and mechanical property considerations in additive manufacturing of aluminum alloys. MRS Bulletin, 2016, 41, 745-751.	3.5	104
37	Characteristics of the allotropic phase transformation in titanium processed by high-pressure torsion using different rotation speeds. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 667, 293-299.	5.6	38

#	Article	IF	Citations
38	Aluminum Matrix Composites Reinforced with Alumina Nanoparticles. SpringerBriefs in Applied Sciences and Technology, 2016, , .	0.4	8
39	State of the Art of Metal Matrix Nanocomposites. SpringerBriefs in Applied Sciences and Technology, 2016, , 1-35.	0.4	1
40	Effects of processing parameters on relative density, microhardness and microstructure of recycled Tiâ€“6Alâ€“4V from machining chips produced by equal channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 651, 248-258.	5.6	31
41	Feasibility of attaining uniform grain structure and enhanced ductility in aluminum alloy by employing a beveled punch in equal-channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 651, 461-466.	5.6	7
42	Hydrostatic radial forward tube extrusion as a new plastic deformation method for producing seamless tubes. International Journal of Advanced Manufacturing Technology, 2017, 88, 291-301.	3.0	19
43	Deformation Behavior of Severely Deformed Al and Related Mechanisms Through Warm Tensile Test. Journal of Materials Engineering and Performance, 2017, 26, 1311-1324.	2.5	7
44	Microstructure and homogeneity of semi-solid 7075 aluminum tubes processed by parallel tubular channel angular pressing. Metals and Materials International, 2017, 23, 1019-1028.	3.4	14
45	Review of principles and methods of severe plastic deformation for producing ultrafine-grained tubes. Materials Science and Technology, 2017, 33, 905-923.	1.6	93
46	Improvement in formability of semi-solid cast hypoeutectic Al-Si alloys by equal-channel angular pressing. Journal of Materials Processing Technology, 2017, 240, 240-248.	6.3	48
47	The role of cryogenic dipping prior to ECAP in the microstructure, secondary-phase precipitation, mechanical properties and corrosion resistance of AA6012 (Al-Mg-Si-Pb). Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 716, 107-119.	5.6	19
48	Severe Plastic Deformation - A Review. Materials Today: Proceedings, 2018, 5, 22340-22349.	1.8	44
49	Circumferential twisting during route B equal-channel angular pressing. Journal of Materials Processing Technology, 2018, 259, 305-311.	6.3	8
51	Effective Parameters for the Success of Severe Plastic Deformation Methods. , 2018, , 187-222.		4
52	Structural evolutions of metallic materials processed by severe plastic deformation. Materials Science and Engineering Reports, 2018, 133, 1-59.	31.8	401
53	Effect of Surface Mechanical Treatments on the Microstructure-Property-Performance of Engineering Alloys. Materials, 2019, 12, 2503.	2.9	69
54	An Overview on the Continuous Severe Plastic Deformation Methods. Materials Transactions, 2019, 60, 1316-1330.	1.2	40
55	Mechanism of phase refinement and its effect on mechanical properties of a severely deformed dual-phase Mgâ€“Li alloy during annealing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 772, 138792.	5.6	25
56	A comprehensive review on equal channel angular pressing of bulk metal and sheet metal process methodology and its varied applications. Journal of Manufacturing Processes, 2020, 59, 698-726.	5.9	24

#	Article	IF	Citations
57	Effect of cryogenic temperature equal channel angular pressing on microstructure, bulk texture and tensile properties of AA1050. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 780, 139190.	5.6	22
58	Numerical and Experimental Analysis of Rotating Backward Extrusion as a New SPD Process. Metals and Materials International, 2020, 26, 1786-1796.	3.4	16
59	Equal channel angular pressing of gas tungsten arc welded AA6061 alloy. Welding in the World, Le Soudage Dans Le Monde, 2020, 64, 1053-1064.	2.5	6
60	The effect of processing parameters on the microstructure and texture evolution of a cup-shaped AZ80 Mg alloy sample manufactured by the rotating backward extrusion. Journal of Alloys and Compounds, 2021, 854, 156264.	5.5	29
61	Precipitation and aging phenomena in an ultrafine grained Al-Zn alloy by severe plastic deformation. Journal of Alloys and Compounds, 2021, 851, 156931.	5.5	24
62	A review on SPD processes used to produce ultrafine-grained and multilayer nanostructured tubes. Materials Today: Proceedings, 2021, 46, 8602-8608.	1.8	8
63	Equal channel angular processingâ€"a modern deforming technique for quality products. , 2021, , 381-423.		1
64	Towards Manufacturing of Ultrafine-Laminated Structures in Metallic Tubes by Accumulative Extrusion Bonding. Metals, 2021, 11, 389.	2.3	5
65	Cryogenic temperature equal channel angular pressing of pure titanium: microstructure and homogeneity. Journal of Materials Research and Technology, 2021, 14, 1167-1179.	5.8	6
66	An overview of the microstructure and mechanical properties of copper tube by SPD process. Materials Today: Proceedings, 2021, 46, 4289-4294.	1.8	3
68	Numerical Investigation of Plastic Strain Homogeneity during Equal-Channel Angular Pressing of a Cu-Zr Alloy. Crystals, 2021, 11, 1505.	2.2	1
69	Grain Refinement Effectiveness of Various Severe Plastic Deformation Techniques on Tubular Materialsâ€"A Review. Lecture Notes in Mechanical Engineering, 2023, , 511-526.	0.4	0
70	Frictional behavior of severe plastic deformed copper sample by using friction calibration curves. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 0, , 095440622211495.	2.1	0
71	Effect of Temperature and Revolution on the Microstructure, Texture and Microhardness of the AZ80 Alloy Cup Prepared by Rotating Backward Extrusion. Metals and Materials International, 0, , .	3.4	0
72	Recent Progress on SPD Processes Empowered by Hydrostatic Pressure. Materials Transactions, 2023, 64, 1663-1672.	1.2	2
73	A review on impact route process on AA5083 of back pressure through equal channel angular pressing. Materials Today: Proceedings, 2023, , .	1.8	1