

Liang Chen

List of Publications by Year in descending order

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69
papers

1,848
citations

218677

26
h-index

302126

39
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all docs

69
docs citations

69
times ranked

771
citing authors

#	ARTICLE	IF	CITATIONS
1	Hot deformation behavior and constitutive modeling of homogenized 6026 aluminum alloy. <i>Materials & Design</i> , 2015, 74, 25-35.	5.1	106
2	Constitutive analysis of homogenized 7005 aluminum alloy at evaluated temperature for extrusion process. <i>Materials & Design</i> , 2015, 66, 129-136.	5.1	106
3	Microstructure analysis of an Al-Zn-Mg alloy during porthole die extrusion based on modeling of constitutive equation and dynamic recrystallization. <i>Journal of Alloys and Compounds</i> , 2017, 710, 80-91.	5.5	90
4	Analysis of longitudinal weld seam defects and investigation of solid-state bonding criteria in porthole die extrusion process of aluminum alloy profiles. <i>Journal of Materials Processing Technology</i> , 2016, 237, 31-47.	6.3	88
5	Hot deformation behavior and microstructure analysis of 25Cr3Mo3NiNb steel during hot compression tests. <i>Vacuum</i> , 2018, 147, 8-17.	3.5	63
6	Investigation of interface evolution, microstructure and mechanical properties of solid-state bonding seams in hot extrusion process of aluminum alloy profiles. <i>Journal of Materials Processing Technology</i> , 2016, 230, 153-166.	6.3	58
7	Study on Al/Mg/Al sheet fabricated by combination of porthole die co-extrusion and subsequent hot rolling. <i>Journal of Alloys and Compounds</i> , 2019, 784, 727-738.	5.5	53
8	A comparative study of several constitutive models for powder metallurgy tungsten at elevated temperature. <i>Materials and Design</i> , 2016, 90, 91-100.	7.0	50
9	Dynamic evolution of grain structure and micro-texture along a welding path of aluminum alloy profiles extruded by porthole dies. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 682, 679-690.	5.6	47
10	Fabrication of Al/Mg/Al laminate by a porthole die co-extrusion process. <i>Journal of Materials Processing Technology</i> , 2018, 258, 165-173.	6.3	46
11	Joining of 1060/6063 aluminum alloys based on porthole die extrusion process. <i>Journal of Materials Processing Technology</i> , 2017, 250, 65-72.	6.3	44
12	Analysis and porthole die design for a multi-hole extrusion process of a hollow, thin-walled aluminum profile. <i>International Journal of Advanced Manufacturing Technology</i> , 2014, 74, 383-392.	3.0	43
13	Microstructural evolution and mechanical properties of welding seams in aluminum alloy profiles extruded by a porthole die under different billet heating temperatures and extrusion speeds. <i>Journal of Materials Processing Technology</i> , 2017, 247, 214-222.	6.3	43
14	Microstructure and mechanical properties of Mg-3.0Zn-1.0Sn-0.3Mn-0.3Ca alloy extruded at different temperatures. <i>Journal of Alloys and Compounds</i> , 2018, 732, 257-269.	5.5	43
15	Hot Deformation Behaviors and Processing Maps of 2024 Aluminum Alloy in As-cast and Homogenized States. <i>Journal of Materials Engineering and Performance</i> , 2015, 24, 5002-5012.	2.5	38
16	Microstructure and texture evolution during porthole die extrusion of Mg-Al-Zn alloy. <i>Journal of Materials Processing Technology</i> , 2018, 259, 346-352.	6.3	36
17	Effects of artificial aging on microstructure, mechanical properties and stress corrosion cracking of a novel high strength 7A99 Al alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 780, 139217.	5.6	36
18	Influence of extrusion parameters on microstructure, texture, and second-phase particles in an Al-Mg-Si alloy. <i>Journal of Materials Processing Technology</i> , 2019, 270, 323-334.	6.3	34

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19	Achieving three-layered Al/Mg/Al sheet via combining porthole die co-extrusion and hot forging. <i>Journal of Magnesium and Alloys</i> , 2020, 8, 654-666.	11.9	34
20	Microstructure evolution during solution treatment of extruded Al-Zn-Mg profile containing a longitudinal weld seam. <i>Journal of Alloys and Compounds</i> , 2017, 729, 210-221.	5.5	33
21	Influence of aging treatment on the microstructure, mechanical properties and anisotropy of hot extruded Al-Mg-Si plate. <i>Materials and Design</i> , 2019, 182, 107999.	7.0	33
22	Effects of solution treatment on the microstructure and mechanical properties of naturally aged EN AW 2024 Al alloy sheet. <i>Journal of Alloys and Compounds</i> , 2020, 824, 153943.	5.5	32
23	Response of mechanical properties and corrosion behavior of Al-Zn-Mg alloy treated by aging and annealing: A comparative study. <i>Journal of Alloys and Compounds</i> , 2020, 848, 156561.	5.5	30
24	Effect of stress-aging treatment on the mechanical and corrosion properties of Al-Zn-Mg-Cu alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 838, 142791.	5.6	30
25	Microstructure and mechanical properties of Mg-Al-Zn alloy extruded by porthole die with different initial billets. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 718, 390-397.	5.6	29
26	Effects of asymmetric feeder on microstructure and mechanical properties of high strength Al-Zn-Mg alloy by hot extrusion. <i>Journal of Alloys and Compounds</i> , 2018, 749, 293-304.	5.5	29
27	Formation mechanism and evolution of surface coarse grains on a ZK60 Mg profile extruded by a porthole die. <i>Journal of Materials Science and Technology</i> , 2020, 47, 88-102.	10.7	29
28	Effects of solution and aging treatments on the microstructure and mechanical properties of cold rolled 2024 Al alloy sheet. <i>Journal of Materials Research and Technology</i> , 2021, 12, 1126-1142.	5.8	25
29	Evolution of grain structure, micro-texture and second phase during porthole die extrusion of Al-Zn-Mg alloy. <i>Materials Characterization</i> , 2019, 158, 109953.	4.4	24
30	Effects of annealing treatment on the microstructure and corrosion behavior of hot rolled AZ31 Mg alloy. <i>Journal of Materials Research and Technology</i> , 2021, 15, 4800-4812.	5.8	24
31	Formation of abnormal coarse grains and its effects on corrosion behaviors of solution treated ZK60 Mg alloy. <i>Corrosion Science</i> , 2021, 180, 109201.	6.6	23
32	Effects of ram velocity on pyramid die extrusion of hollow aluminum profile. <i>International Journal of Advanced Manufacturing Technology</i> , 2015, 79, 2117-2125.	3.0	22
33	Microstructure evolution of AZ91 alloy during hot extrusion process with various ram velocity. <i>Vacuum</i> , 2018, 150, 136-143.	3.5	22
34	Co-extrusion of dissimilar AA6063/AA7075 by porthole die at various temperatures. <i>Journal of Alloys and Compounds</i> , 2018, 764, 162-169.	5.5	21
35	Correlation between homogenization treatment and subsequent hot extrusion of Al-Zn-Mg-Si alloy. <i>Journal of Materials Science</i> , 2019, 54, 9843-9856.	3.7	21
36	Formation mechanism of abnormal coarse grains on weld seam of extruded ZK60 alloy and the effects on mechanical properties. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 773, 138718.	5.6	21

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37	Improving mechanical anisotropy and corrosion resistance of extruded AA7075 alloy by warm cross rolling and annealing. <i>Journal of Alloys and Compounds</i> , 2021, 863, 158725.	5.5	21
38	A comprehensive analysis on microstructure evolution of Mg-5.65Zn-0.66Zr alloy during hot deformation. <i>Journal of Magnesium and Alloys</i> , 2021, 9, 520-531.	11.9	18
39	Microstructures of longitudinal/transverse welds and back-end defects and their influences on the corrosion resistance and mechanical properties of aluminum alloy extrusion profiles. <i>Journal of Materials Processing Technology</i> , 2019, 267, 1-16.	6.3	17
40	Interface microstructure evolution and mechanical properties of the extruded fiber-reinforced aluminum-based composite bar. <i>Materials and Design</i> , 2020, 188, 108446.	7.0	17
41	Microstructure evolution, plastic anisotropy, and intergranular corrosion of Al-Mg-Si sheet processed through a combination of hot extrusion and cold rolling. <i>Materials Characterization</i> , 2020, 164, 110299.	4.4	17
42	Evaluation of a pyramid die extrusion for a hollow aluminum profile using FE simulation. <i>Journal of Mechanical Science and Technology</i> , 2015, 29, 2195-2203.	1.5	16
43	Evolution of transverse weld during porthole extrusion of AA7N01 hollow profile. <i>Journal of Materials Processing Technology</i> , 2017, 248, 103-114.	6.3	16
44	Investigation on longitudinal weld seams during porthole die extrusion process of high strength 7075 aluminum alloy. <i>International Journal of Advanced Manufacturing Technology</i> , 2017, 91, 1897-1907.	3.0	16
45	Investigation on corrosion behavior and mechanical properties of an extruded Mg-Zn-Al-Sn-Mn alloy. <i>Materials Characterization</i> , 2021, 180, 111439.	4.4	16
46	Investigation on microstructure and mechanical properties of in-situ TiB ₂ /Al-Cu-Mg composite profile fabricated by porthole die extrusion. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 786, 139449.	5.6	15
47	Multi-objective optimization and experimental investigation on hot extruded plate of high strength Al-Zn-Mg alloy. <i>Journal of Materials Research and Technology</i> , 2020, 9, 507-519.	5.8	14
48	Influence of homogenization treatment on microstructure and mechanical properties of Al-Zn-Mg alloy extruded by porthole die. <i>Materials Characterization</i> , 2020, 161, 110148.	4.4	13
49	Microstructure characterization and corrosion behavior of hollow ZK60 Mg profile containing longitudinal welds. <i>Corrosion Science</i> , 2021, 193, 109875.	6.6	13
50	Study on solid bonding behavior of AZ31 Mg alloy during porthole die extrusion process. <i>International Journal of Advanced Manufacturing Technology</i> , 2017, 93, 2791-2799.	3.0	12
51	Investigation on microstructure and mechanical properties of hot-rolled AZ31 Mg alloy with various cryogenic treatments. <i>Journal of Materials Research and Technology</i> , 2022, 19, 4557-4570.	5.8	10
52	Effects of Second Phase Particle Dispersion on Kinetics of Isothermal Peritectic Transformation in Fe-C Alloy. <i>ISIJ International</i> , 2012, 52, 434-440.	1.4	9
53	Grain refinement and strength enhancing of hot extruded Mg alloy by application of electric pulse. <i>Materials Letters</i> , 2019, 241, 104-107.	2.6	9
54	Strengthening mechanism and anisotropy of mechanical properties of Si ₃ N ₄ p/Al-Mg-Si composites fabricated by sintering and extrusion. <i>Materials and Design</i> , 2021, 210, 110111.	7.0	9

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55	Fabrication and strengthening mechanism of dual-phased and bimodal-sized (Si ₃ N ₄ p+TiB ₂ p)/6061Al hybrid composite. <i>Materials and Design</i> , 2022, 220, 110872.	7.0	9
56	Microstructure and mechanical properties of hot extruded Mg-8.89Li-0.96Zn alloy. <i>Results in Physics</i> , 2019, 13, 102148.	4.1	8
57	Flow behavior and constitutive description of 20CrMnTi steel at high temperature. <i>Journal of Central South University</i> , 2018, 25, 1013-1024.	3.0	7
58	Microstructure, mechanical properties and welding quality evaluation of longitudinal welds in hollow magnesium alloy profiles extruded at different ram speeds. <i>Materials Characterization</i> , 2019, 151, 414-428.	4.4	7
59	Investigation on peripheral coarse grains and precipitation behavior of in-situ TiB ₂ /Al-Cu-Mg composites with various Mg contents. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 826, 142000.	5.6	7
60	Effects of TiB ₂ particle and local aspect ratio on microstructure and mechanical properties of an I-shaped TiB ₂ /6061Al composite profile. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 846, 143284.	5.6	7
61	Improvement in mechanical properties of Al-Zn-Mg alloy by applying electric pulse during hot extrusion. <i>Journal of Materials Research and Technology</i> , 2020, 9, 1210-1220.	5.8	6
62	Investigation on microstructure and mechanical properties of Al-5.50Zn-2.35Mg-1.36Cu alloy fabricated by hot extrusion process. <i>Journal of Materials Research</i> , 2019, 34, 3151-3162.	2.6	5
63	Numerical and experimental study on extrusion of ZK60 Mg alloy using billet with temperature gradient. <i>Journal of Materials Research and Technology</i> , 2021, 14, 3018-3028.	5.8	5
64	Evolution mechanisms of charge weld during porthole die extrusion of ZK60 Mg profile. <i>Journal of Materials Processing Technology</i> , 2022, 300, 117401.	6.3	5
65	Aging precipitation and its effects on mechanical properties of TiB ₂ particulate reinforced 7075Al composite. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 837, 142742.	5.6	5
66	Effects of artificial aging on precipitation behavior, mechanical properties and corrosion resistance of Si ₃ N ₄ /6061Al composite fabricated by sintering and hot extrusion processes. <i>Journal of Materials Processing Technology</i> , 2022, 306, 117644.	6.3	5
67	Effects of Second Phase Particles on Migration of α/γ Interface during Isothermal α/γ Transformation. <i>ISIJ International</i> , 2012, 52, 1841-1847.	1.4	4
68	Experimental Study and Optimization on Solution and Artificial Aging of Cold-Rolled 2024 Al Alloy Sheet. <i>Journal of Materials Engineering and Performance</i> , 2022, 31, 5419-5431.	2.5	4
69	Analysis of retarding effect on δ to β transformation in Fe-C alloy by addition of dispersed particles. <i>Progress in Natural Science: Materials International</i> , 2015, 25, 236-241.	4.4	0