Hui Zhang

List of Publications by Year
in descending order

82 papers	2,563 citations	172207 29 h-index	223531 46 g-index
82 all docs	82 docs citations	82 times ranked	1517 citing authors

#	Article	IF	Citations
1	Revealing the grain size dependent hot workability and deformation mechanisms in a Mg-Zn-Y alloy. Journal of Magnesium and Alloys, 2023, 11, 1461-1471.	5.5	9
2	Revealing the decomposition mechanisms of dislocations and metastable Î±' phase and their effects on mechanical properties in a Ti-6Al-4V alloy. Journal of Materials Science and Technology, 2022, 107, 136-148.	5.6	46
3	Unraveling precipitation evolution and strengthening function of the Al-Zn-Mg-Cu alloys with various Zn contents: Multiple experiments and integrated internal-state-variable modeling. Journal of Materials Science and Technology, 2022, 116, 130-150.	5.6	40
4	Constitutive and microstructural characteristics of Ti-5Al-2.5Sn alloy during isothermal and non-isothermal multi-stage hot deformation across different phase regions. Journal of Alloys and Compounds, 2022, 908, 164647.	2.8	11
5	Microstructure, mechanical properties and deformation mechanisms of an Al-Mg alloy processed by the cyclical continuous expanded extrusion and drawing approach. International Journal of Minerals, Metallurgy and Materials, 2022, 29, 108-118.	2.4	8
6	Effect of Heat Treatments on the Corrosion Resistance of a High Strength Mg-Gd-Y-Zn-Zr Alloy. Materials, 2022, 15, 2813.	1.3	4
7	Experimental and modeling investigations of the non-isothermal and isothermal precipitations in an Al-Cu-Mg-Zr alloy with various pre-precipitation microstructures. Materials and Design, 2022, 217, 110640.	3.3	10
8	Revealing the cryogenic-temperature toughness and deformation mechanisms in high manganese austenitic steels. Materials Characterization, 2022, 190, 112024.	1.9	7
9	Microstructural characteristics and tribological behavior of an additively manufactured Ti-6Al-4V alloy under direct aging and solution-aging treatments. Tribology International, 2022, 175, 107763.	3.0	15
10	Dynamic softening and microstructural evolutionÂduring hot deformation ofÂAlâ€“Cuâ€“Mgâ€“Zr alloysÂwithÂdifferent homogenization cooling rates. Rare Metals, 2021, 40, 626-634.	3.6	12
11	Effect of Zn content on the dynamic softening of Alâ€“Znâ€“Mgâ€“Cu alloys during hot compression deformation. Vacuum, 2021, 184, 109941.	1.6	37
12	Unravelling the precipitation evolutions of AZ80 magnesium alloy during non-isothermal and isothermal processes. Journal of Materials Science and Technology, 2021, 75, 184-195.	5.6	18
13	Hot compression and industrial extrusion characteristics of an as-cast Al-10Sr master alloy. Journal of Manufacturing Processes, 2021, 61, 481-491.	2.8	4
14	Comparative Hot Workability Characteristics of an Alâ€“Si/SiCp Aluminium Matrix Composite Hybrid Reinforced with Various TiB2 Additions. Metals and Materials International, 2021, 27, 1880-1891.	1.8	14
15	Tailored growth of highâ€quality CsPbI 3 nanobelts. Journal of the American Ceramic Society, 2021, 104, 2358-2365.	1.9	1
16	Microstructure and mechanical behaviors of 6061 Al matrix hybrid composites reinforced with SiC and stainless steel particles. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 804, 140732.	2.6	41
17	Microstructure, mechanical properties and deformation characteristics of Al-Mg-Si alloys processed by a continuous expansion extrusion approach. Journal of Materials Science and Technology, 2021, 80, 150-162.	5.6	24
18	Accelerated flow softening and dynamic transformation of Ti-6Al-4V alloy in two-phase region during hot deformation via coarsening Î± grain. Journal of Materials Science and Technology, 2020, 36, 160-166.	5.6	34

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19	Post-dynamic Î± to Î² phase transformation and reverse transformation of Ti-5Al-3V alloy after hot deformation in two phase region. Materials and Design, 2020, 188, 108466.	3.3	17
20	Finite element modeling of Conform-HPTE process for a continuous severe plastic deformation path. Journal of Manufacturing Processes, 2020, 55, 373-380.	2.8	13
21	Phase evolution in AlSi20/8009 aluminum alloy during high temperature heating near melting point and cooling processes. Transactions of Nonferrous Metals Society of China, 2020, 30, 1157-1168.	1.7	0
22	Field emission behaviors of CsPbI₃ nanobelts. Journal of Materials Chemistry C, 2020, 8, 5156-5162.	2.7	8
23	Reduced residual stress and retained properties in Al-Zn-Mg-Cu alloys using a novel cladding quenching process. Journal of Materials Research and Technology, 2020, 9, 7201-7209.	2.6	7
24	Integrated physically based modeling for the multiple static softening mechanisms following multi-stage hot deformation in Al-Zn-Mg-Cu alloys. International Journal of Plasticity, 2020, 134, 102809.	4.1	40
25	Static softening behavior and modeling of an Alâ€“Cuâ€“Mgâ€“Zr alloy with various pre-precipitation microstructures during multistage hot deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 778, 139094.	2.6	21
26	Nonadditive strengthening functions for cold-worked cubic metals: Experiments and constitutive modeling. International Journal of Plasticity, 2020, 129, 102700.	4.1	38
27	Single-Crystal Integrated Photoanodes Based on 4H-SiC Nanohole Arrays for Boosting Photoelectrochemical Water Splitting Activity. ACS Applied Materials & Interfaces, 2020, 12, 20469-20478.	4.0	13
28	Bonding interfacial characterization of SiCp/8009Al composite and A356 aluminum alloy using compound casting. Journal of Materials Processing Technology, 2019, 263, 42-49.	3.1	15
29	Strain path dependent evolutions of microstructure and texture in AZ80 magnesium alloy during hot deformation. Journal of Alloys and Compounds, 2019, 806, 292-301.	2.8	26
30	The intermetallic formation in the extruded AlSi20/8009 aluminum alloy during annealing treatment. Vacuum, 2019, 168, 108800.	1.6	8
31	Improvement of the mechanical properties of Alâ€“Mgâ€“Si alloys with nano-scale precipitates after repetitive continuous extrusion forming and T8 tempering. Journal of Materials Research and Technology, 2019, 8, 5950-5960.	2.6	38
32	Effect of Zn content on the static softening behavior and kinetics of Alâ€“Znâ€“Mgâ€“Cu alloys during double-stage hot deformation. Journal of Alloys and Compounds, 2019, 806, 1081-1096.	2.8	30
33	The role of various Zr additions in static softening behavior of Al-Zn-Mg-Cu alloys during interval holding of double-stage hot deformation. Journal of Alloys and Compounds, 2019, 792, 1112-1121.	2.8	31
34	A novel repetitive continuous welding extrusion for refining grain size and evading strength-ductility trade-off in AZ31 magnesium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 753, 192-196.	2.6	10
35	Revealing the influence of pre-precipitation microstructure on hot workability in an Al-Cu-Mg-Zr alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 755, 147-157.	2.6	26
36	Tribological behaviour of Al-8.42Fe-1.29V-1.93Si/SiCp composites under dry sliding conditions. IOP Conference Series: Materials Science and Engineering, 2019, 612, 032111.	0.3	1

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37	CsPbI₃ Nanotube Photodetectors with High Detectivity. Small, 2019, 15, e1905253.	5.2	41
38	Fabrication of homogeneously dispersed graphene/Al composites by solution mixing and powder metallurgy. International Journal of Minerals, Metallurgy and Materials, 2018, 25, 102-109.	2.4	51
39	Hot workability of PM 8009Al/Al2O3 particle-reinforced composite characterized using processing maps. Vacuum, 2018, 149, 297-305.	1.6	21
40	Hot deformation behavior and mechanism of hybrid aluminum-matrix composites reinforced with micro-SiC and nano-TiB2. Journal of Alloys and Compounds, 2018, 753, 566-575.	2.8	50
41	A Correction to the Stressâ€“Strain Curve During Multistage Hot Deformation of 7150 Aluminum Alloy Using Instantaneous Friction Factors. Journal of Materials Engineering and Performance, 2018, 27, 3083-3090.	1.2	9
42	Non-isothermal precipitation kinetics and its effect on hot working behaviors of an Alâ€“Znâ€“Mgâ€“Cu alloy. Journal of Materials Science, 2018, 53, 2830-2843.	1.7	16
43	Precipitation Stages and Reaction Kinetics of AlMgSi Alloys during the Artificial Aging Process Monitored by In-Situ Electrical Resistivity Measurement Method. Metals, 2018, 8, 39.	1.0	13
44	Photodetectors with ultra-high detectivity based on stabilized all-inorganic perovskite CsPb_{0.922}Sn_{0.078}I₃ nanobelts. Journal of Materials Chemistry C, 2018, 6, 6287-6296.	2.7	47
45	Characterization of the Isothermal Precipitation Kinetics of an Al-Zn-Mg-Cu Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 5157-5168.	1.1	10
46	Wear characteristics of hybrid aluminum-matrix composites reinforced with well-dispersed reduced graphene oxide nanosheets and silicon carbide particulates. Vacuum, 2018, 155, 364-375.	1.6	59
47	Fabrication of aluminium matrix hybrid composites reinforced with SiC microparticles and TiB₂ nanoparticles by powder metallurgy. Powder Metallurgy, 2017, 60, 66-72.	0.9	55
48	Enhanced mechanical properties of an Al-Mg-Si alloy by repetitive continuous extrusion forming process and subsequent aging treatment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 695, 35-44.	2.6	30
49	Hot deformation characteristics and mechanism of PM 8009Al/SiC particle reinforced composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 697, 194-202.	2.6	28
50	Flow Stress and Processing Map of a PM 8009Al/SiC Particle Reinforced Composite During Hot Compression. Journal of Materials Engineering and Performance, 2017, 26, 4789-4796.	1.2	4
51	Microstructural Characteristic of the Al-Fe-Cu Alloy During High-Speed Repetitive Continuous Extrusion Forming. Journal of Materials Engineering and Performance, 2016, 25, 4769-4775.	1.2	9
52	Microstructures and Properties of Aluminum Alloys during Repetitive Continuous Extrusion Forming. Materials Science Forum, 2016, 879, 2261-2267.	0.3	1
53	Characterizing precipitate evolution of an Alâ€“Znâ€“Mgâ€“Cu-based commercial alloy during artificial aging and non-isothermal heat treatments by in situ electrical resistivity monitoring. Materials Characterization, 2016, 117, 47-56.	1.9	46
54	Residual stress relief in Alâ€“Znâ€“Mgâ€“Cu alloy by a new multistage interrupted artificial aging treatment. Materials and Design, 2016, 92, 281-287.	3.3	48

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55	Characterization of dynamic microstructural evolution of AA7150 aluminum alloy at high strain rate during hot deformation. Transactions of Nonferrous Metals Society of China, 2016, 26, 51-62.	1.7	18
56	Microstructures and properties of Alâ€“Mgâ€“SI alloy overhead conductor by horizontal continuous casting and continuous extrusion forming process. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 649, 128-134.	2.6	46
57	Flow stress behavior and processing map of extruded 7075Al/SiC particle reinforced composite prepared by spray deposition during hot compression. Transactions of Nonferrous Metals Society of China, 2015, 25, 692-698.	1.7	24
58	Microstructure and properties of Alâ€“0.70Feâ€“0.24Cu alloy conductor prepared by horizontal continuous casting and subsequent continuous extrusion forming. Transactions of Nonferrous Metals Society of China, 2015, 25, 1763-1769.	1.7	20
59	Constitutive characteristics and microstructure evolution of 7150 aluminum alloy during isothermal and non-isothermal multistage hot compression. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 636, 459-469.	2.6	22
60	Static softening following multistage hot deformation of 7150 aluminum alloy: Experiment and modeling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 648, 164-177.	2.6	26
61	Characterization of dynamic microstructure evolution during hot deformation of Alâ€“4.10Cuâ€“1.42Mgâ€“0.57Mnâ€“0.12Zr alloy. Transactions of Nonferrous Metals Society of China, 2014, 24, 3477-3485.	1.7	6
62	Effects of Ti addition on the microstructures and mechanical properties of the Alâ€“Mnâ€“Mgâ€“RE alloy. Materials & Design, 2014, 55, 280-285.	5.1	7
63	Microstructures and mechanical properties evolution of an Alâ€“Feâ€“Cu alloy processed by repetitive continuous extrusion forming. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 612, 131-139.	2.6	25
64	Comparative hot deformation characters of Alâ€“Mnâ€“Mgâ€“RE alloy and Alâ€“Mnâ€“Mgâ€“REâ€“Ti alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 595, 10-17.	2.6	10
65	A novel aluminum surface treatment for improved bonding in magnesium/aluminum bimetallic castings. Scripta Materialia, 2014, 86, 52-55.	2.6	47
66	Flow stress and microstructural evolution of the horizontal continuous casting Alâ€“0.96Mnâ€“0.38Siâ€“0.18Fe alloy during hot compression. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 571, 25-32.	2.6	22
67	The kinetics of dynamic and static softening during multistage hot deformation of 7150 aluminum alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 552, 269-275.	2.6	43
68	Hot deformation behavior of Al-Zn-Mg-Cu-Zr aluminum alloys during compression at elevated temperature. Transactions of Nonferrous Metals Society of China, 2011, 21, 437-442.	1.7	55
69	Microstructural evolution of 2026 aluminum alloy during hot compression and subsequent heat treatment. Transactions of Nonferrous Metals Society of China, 2011, 21, 955-961.	1.7	13
70	Hot deformation behavior of 2026 aluminum alloy during compression at elevated temperature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 485-490.	2.6	135
71	Hot deformation behavior of 7150 aluminum alloy during compression at elevated temperature. Materials Characterization, 2009, 60, 530-536.	1.9	250
72	Hot deformation behavior of Cuâ€“Feâ€“P alloys during compression at elevated temperatures. Journal of Materials Processing Technology, 2009, 209, 2892-2896.	3.1	34

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73	Microstructures and tensile properties of AZ31 magnesium alloy by continuous extrusion forming process. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 486, 295-299.	2.6	47
74	Flow stress equation of AZ31 magnesium alloy sheet during warm tensile deformation. Journal of Materials Processing Technology, 2008, 208, 29-34.	3.1	105
75	Tensile deformation and fracture behavior of spray-deposition 7075/15SiCp aluminum matrix composite sheet at elevated temperatures. Materials Characterization, 2008, 59, 1078-1082.	1.9	28
76	Hot deformation behavior of the new Alâ€“Mgâ€“Siâ€“Cu aluminum alloy during compression at elevated temperatures. Materials Characterization, 2007, 58, 168-173.	1.9	144
77	Grain refinement in as-cast AZ80 Mg alloy under large strain deformation. Materials Characterization, 2007, 58, 162-167.	1.9	95
78	Tensile deformation behavior of spray-deposited FVS0812 heat-resistant aluminum alloy sheet at elevated temperatures. Materials Characterization, 2007, 58, 575-579.	1.9	12
79	Hot deformation behavior of KFC copper alloy during compression at elevated temperatures. Transactions of Nonferrous Metals Society of China, 2006, 16, 562-566.	1.7	13
80	Flow stress behavior of porous FVS0812 aluminum alloy during hot-compression. Mechanics Research Communications, 2006, 33, 508-514.	1.0	35
81	Dynamic and static softening behaviors of aluminum alloys during multistage hot deformation. Journal of Materials Processing Technology, 2004, 148, 245-249.	3.1	60
82	Flow stress equation for multipass hot-rolling of aluminum alloys. Central South University, 2001, 8, 13-17.	0.5	6