Hui Zhang

List of Publications by Year
in descending order

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82 papers	2,563 citations	172386 29 h-index	223716 46 g-index
82 all docs	82 docs citations	82 times ranked	1517 citing authors

#	Article	IF	Citations
1	Hot deformation behavior of 7150 aluminum alloy during compression at elevated temperature. Materials Characterization, 2009, 60, 530-536.	1.9	250
2	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
3	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
4	Flow stress equation of AZ31 magnesium alloy sheet during warm tensile deformation. Journal of Materials Processing Technology, 2008, 208, 29-34.	3.1	105
5	Grain refinement in as-cast AZ80 Mg alloy under large strain deformation. Materials Characterization, 2007, 58, 162-167.	1.9	95
6	Dynamic and static softening behaviors of aluminum alloys during multistage hot deformation. Journal of Materials Processing Technology, 2004, 148, 245-249.	3.1	60
7	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
8	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
9	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
10	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
11	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
12	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
13	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
14	A novel aluminum surface treatment for improved bonding in magnesium/aluminum bimetallic castings. Scripta Materialia, 2014, 86, 52-55.	2.6	47
15	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
16	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
17	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
18	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

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19	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
20	CsPbI₃ Nanotube Photodetectors with High Detectivity. Small, 2019, 15, e1905253.	5.2	41
21	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
22	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
23	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
24	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
25	Nonadditive strengthening functions for cold-worked cubic metals: Experiments and constitutive modeling. International Journal of Plasticity, 2020, 129, 102700.	4.1	38
26	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
27	Flow stress behavior of porous FVS0812 aluminum alloy during hot-compression. Mechanics Research Communications, 2006, 33, 508-514.	1.0	35
28	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
29	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
30	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
31	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
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	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
34	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
35	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
36	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

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37	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
38	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
39	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
40	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
41	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
42	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
43	Hot workability of PM 8009Al/Al2O3 particle-reinforced composite characterized using processing maps. Vacuum, 2018, 149, 297-305.	1.6	21
44	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
45	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
46	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
47	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
48	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
49	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
50	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
51	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
52	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
53	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
54	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

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55	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
56	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
57	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
58	Tensile deformation behavior of spray-deposited FVS0812 heat-resistant aluminum alloy sheet at elevated temperatures. Materials Characterization, 2007, 58, 575-579.	1.9	12
59	Dynamic softening and microstructural evolutionÂduring hot deformation ofÂAlâ€“Cuâ€“Mgâ€“Zr alloysÂwithÂdifferent homogenization cooling rates. Rare Metals, 2021, 40, 626-634.	3.6	12
60	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
61	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
62	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
63	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
64	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
65	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
66	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
67	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
68	The intermetallic formation in the extruded AlSi20/8009 aluminum alloy during annealing treatment. Vacuum, 2019, 168, 108800.	1.6	8
69	Field emission behaviors of CsPbI₃ nanobelts. Journal of Materials Chemistry C, 2020, 8, 5156-5162.	2.7	8
70	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
71	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
72	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

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73	Revealing the cryogenic-temperature toughness and deformation mechanisms in high manganese austenitic steels. Materials Characterization, 2022, 190, 112024.	1.9	7
74	Flow stress equation for multipass hot-rolling of aluminum alloys. Central South University, 2001, 8, 13-17.	0.5	6
75	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
76	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
77	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
78	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
79	Microstructures and Properties of Aluminum Alloys during Repetitive Continuous Extrusion Forming. Materials Science Forum, 2016, 879, 2261-2267.	0.3	1
80	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
81	Tailored growth of highâ€quality CsPbI 3 nanobelts. Journal of the American Ceramic Society, 2021, 104, 2358-2365.	1.9	1
82	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