

Xuan Liu

List of Publications by Year in descending order

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48
papers

1,559
citations

257357

24
h-index

315616

38
g-index

48
all docs

48
docs citations

48
times ranked

771
citing authors

#	ARTICLE	IF	CITATIONS
1	Optimisation of the bottom blowing process for a 200 t converter. <i>Ironmaking and Steelmaking</i> , 2023, 50, 1-12.	1.1	7
2	Current progresses and future prospects on aluminium-air batteries. <i>International Materials Reviews</i> , 2022, 67, 734-764.	9.4	17
3	Improving energy efficiency of commercial aluminum alloy as anodes for Al-air battery through introducing micro-nanoscale AlSb precipitates. <i>Electrochimica Acta</i> , 2022, 417, 140331.	2.6	15
4	Microstructure and mechanical properties of pitch based mixture modified by additions of graphene oxide precursor and TiB ₂ particles. <i>Chemical Engineering Journal</i> , 2022, 443, 136402.	6.6	2
5	Editorial for special issue on advanced energy storage and materials for the 70th Anniversary of USTB. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2022, 29, 905-908.	2.4	1
6	Hydrogen as a carrier of renewable energies toward carbon neutrality: State-of-the-art and challenging issues. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2022, 29, 1073-1089.	2.4	27
7	High energy efficiency of Al-based anodes for Al-air battery by simultaneous addition of Mn and Sb. <i>Chemical Engineering Journal</i> , 2021, 417, 128006.	6.6	51
8	A comprehensive review of the development of magnesium anodes for primary batteries. <i>Journal of Materials Chemistry A</i> , 2021, 9, 12367-12399.	5.2	72
9	Ultrasonic-assisted hydrothermal synthesis of cobalt oxide/nitrogen-doped graphene oxide hybrid as oxygen reduction reaction catalyst for Al-air battery. <i>Ultrasonics Sonochemistry</i> , 2021, 72, 105457.	3.8	15
10	The role of TiB ₂ particles in the creep and penetrating resistance of graphite-based composite. <i>Ceramics International</i> , 2021, 47, 12096-12103.	2.3	9
11	Microstructures and mechanical properties of the Al-Cu-Sc alloys prepared by ultrasound-assisted molten salt electrolysis. <i>Journal of Alloys and Compounds</i> , 2020, 818, 152870.	2.8	8
12	Effects of cooling rate on casting ternary Al-Cu-Sc alloy prepared by ultrasound-assisted molten salt electrolysis. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 771, 138657.	2.6	6
13	Phase-Species-Dependent Electrochemical and Corrosion Behaviors of Wrought Mg-Y-Zn-Based Alloys. <i>Journal of Materials Engineering and Performance</i> , 2020, 29, 5028-5040.	1.2	3
14	Electrochemical and corrosion behaviors of the wrought Mg-Y-Zn based alloys with high Y/Zn mole ratios. <i>Journal of Magnesium and Alloys</i> , 2020, , .	5.5	13
15	The role of microstructural evolution in improving energy conversion of Al-based anodes for metal-air batteries. <i>Journal of Power Sources</i> , 2020, 451, 227806.	4.0	38
16	The role of Al ₂ Gd cuboids in the discharge performance and electrochemical behaviors of AZ31-Gd anode for Mg-air batteries. <i>Energy</i> , 2019, 189, 116314.	4.5	53
17	Evaluating the Discharge Performance of Heat-Treated Al-Sb Alloys for Al-Air Batteries. <i>Journal of Materials Engineering and Performance</i> , 2019, 28, 5476-5484.	1.2	16
18	The role of Al ₂ Ca and Al ₂ (Sm,Ca,La) particles in the microstructures and electrochemical discharge performance of as-extruded Mg ₃ wt.%Al ₁ wt.%Zn based alloys for primary Mg-air batteries. <i>International Journal of Energy Research</i> , 2019, 43, 4569-4579.	2.2	39

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19	Fabrication of Al-Si-Sc alloy bearing AlSi ₂ Sc ₂ phase using ultrasonically assisted molten salt electrolysis. <i>Journal of Alloys and Compounds</i> , 2019, 797, 883-889.	2.8	10
20	The role of micro-naoscale AlSb precipitates in improving the discharge performance of Al-Sb alloy anodes for Al-air batteries. <i>Journal of Power Sources</i> , 2019, 425, 186-194.	4.0	53
21	Electrochemical behaviors and discharge performance of the as-extruded Mg-1.5 wt%Ca alloys as anode for Mg-air battery. <i>Journal of Alloys and Compounds</i> , 2019, 790, 822-828.	2.8	66
22	Segregation behaviors of Sc and unique primary Al ₃ Sc in Al-Sc alloys prepared by molten salt electrolysis. <i>Journal of Materials Science and Technology</i> , 2019, 35, 1422-1431.	5.6	25
23	Effects of Y Content on the Microstructures and Mechanical Properties of Mg-5Zn-xY-0.6Zr Alloys. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2019, 34, 138-144.	0.4	2
24	Effects of synergetic ultrasound on the Sc yield and primary Al ₃ Sc in the Al-Sc alloy prepared by the molten salts electrolysis. <i>Ultrasonics Sonochemistry</i> , 2019, 52, 33-40.	3.8	10
25	Effects of the combinative Ca, Sm and La additions on the electrochemical behaviors and discharge performance of the as-extruded AZ91 anodes for Mg-air batteries. <i>Journal of Power Sources</i> , 2019, 414, 174-182.	4.0	120
26	Effects of radiator shapes on the bubble diving and dispersion of ultrasonic argon process. <i>Ultrasonics Sonochemistry</i> , 2018, 41, 600-607.	3.8	12
27	Influences of warm rolling and annealing processes on microstructure and mechanical properties of three parent structures containing Mg-Li alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 711, 1-11.	2.6	28
28	Effect of limestone ores on grain refinement of as-cast commercial AZ31 magnesium alloys. <i>Transactions of Nonferrous Metals Society of China</i> , 2018, 28, 1103-1113.	1.7	12
29	Discharge and corrosion behaviors of the $\hat{1}\pm$ -Mg and $\hat{1}^2$ -Li based Mg alloys for Mg-air batteries at different current densities. <i>Materials and Design</i> , 2018, 160, 138-146.	3.3	82
30	Discharge performance of the magnesium anodes with different phase constitutions for Mg-air batteries. <i>Journal of Power Sources</i> , 2018, 396, 667-674.	4.0	111
31	Precipitation evolution during annealing of Mg-Li alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 689, 332-344.	2.6	22
32	Effects of Zn/Gd ratio on the microstructures and mechanical properties of Mg-Zn-Gd-Zr alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 695, 135-143.	2.6	69
33	The role of ultrasound in hydrogen removal and microstructure refinement by ultrasonic argon degassing process. <i>Ultrasonics Sonochemistry</i> , 2017, 38, 455-462.	3.8	45
34	The thermoelectric power of Al-0.99 wt.% Fe alloys in the AC magnetic field. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 155101.	0.7	1
35	Investigation of the hydrogen states in magnesium alloys and their effects on mechanical properties. <i>Materials and Design</i> , 2017, 134, 446-454.	3.3	9
36	Microstructure evolution and strengthening mechanism study of Mg-Li alloys during deformation and heat treatment. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 704, 344-359.	2.6	33

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37	Effects of Nd/Gd value on the microstructures and mechanical properties of Mg-Gd-Y-Nd-Zr alloys. <i>Journal of Magnesium and Alloys</i> , 2016, 4, 214-219.	5.5	46
38	Fabrication of high strength β , β_1 , β_2 phase containing Mg-Li alloys with 0.2%Y by extruding and annealing process. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 675, 55-64.	2.6	25
39	The effect of low frequency-electromagnetic field on temperature field and microstructure during magnesium slab casting process. <i>International Journal of Cast Metals Research</i> , 2016, 29, 228-235.	0.5	2
40	The Effects of ZnO Particles on the Grain Refinement and Mechanical Properties of AZ31 Magnesium Alloys. <i>Transactions of the Indian Institute of Metals</i> , 2016, 69, 1911-1918.	0.7	10
41	Study on Fabrication of AA4032/AA6069 Cladding Billet Using Direct Chill Casting Process. <i>Journal of Materials Engineering and Performance</i> , 2016, 25, 1317-1326.	1.2	4
42	Effects of Extrusion Speed on the Microstructure and Mechanical Properties of Mg ₉ Gd ₃ Y _{1.5} Zn _{0.8} Zr alloy. <i>Journal of Materials Science and Technology</i> , 2016, 32, 313-319.	5.6	69
43	Study on hydrogen removal of AZ91 alloys using ultrasonic argon degassing process. <i>Ultrasonics Sonochemistry</i> , 2015, 26, 73-80.	3.8	45
44	Effects of phase composition and content on the microstructures and mechanical properties of high strength Mg-Y-Zn-Zr alloys. <i>Materials and Design</i> , 2015, 88, 915-923.	3.3	85
45	Microstructures, mechanical properties and corrosion behaviors of Mg-Y-Zn-Zr alloys with specific Y/Zn mole ratios. <i>Journal of Alloys and Compounds</i> , 2015, 624, 116-125.	2.8	95
46	Electrical resistivity behaviors of liquid Pb-Sn binary alloy in the presence of ultrasonic field. <i>Ultrasonics</i> , 2015, 55, 6-9.	2.1	24
47	Effects of casting process on microstructures and flow stress behavior of Mg ₉ Gd ₃ Y _{1.5} Zn _{0.8} Zr semi-continuous casting billets. <i>Journal of Magnesium and Alloys</i> , 2014, 2, 342-348.	5.5	12
48	Microstructures and mechanical properties of high performance Mg ₆ Gd ₃ Y ₂ Nd _{0.4} Zr alloy by indirect extrusion and aging treatment. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 612, 380-386.	2.6	40