Zhiyong Chen

List of Publications by Year
in descending order

43 papers	960 citations	393982 19 h-index	454577 30 g-index
43 all docs	43 docs citations	43 times ranked	523 citing authors

#	Article	IF	Citations
1	Microstructures and tensile properties of Mgâ€“Gdâ€“Yâ€“Zr alloy during multidirectional forging at 773K. Materials & Design, 2013, 50, 587-596.	5.1	101
2	Improved workability and ductility of the Mg-Gd-Y-Zn-Zr alloy via enhanced kinking and dynamic recrystallization. Journal of Alloys and Compounds, 2018, 749, 878-886.	2.8	64
3	Evolution of LPSO phases in a Mg-Zn-Y-Gd-Zr alloy during semi-continuous casting, homogenization and hot extrusion. Materials and Design, 2018, 152, 1-9.	3.3	62
4	Hot deformation and dynamic recrystallization behaviors of Mg-Gd-Zn alloy with LPSO phases. Journal of Alloys and Compounds, 2019, 792, 894-906.	2.8	58
5	Texture evolution, deformation mechanism and mechanical properties of the hot rolled Mg-Gd-Y-Zn-Zr alloy containing LPSO phase. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 731, 479-486.	2.6	50
6	Microstructural evolution in adiabatic shear bands of copper at high strain rates: Electron backscatter diffraction characterization. Materials Characterization, 2012, 64, 21-26.	1.9	40
7	The effect of LPSO on the deformation mechanism of Mgâ€“Gdâ€“Yâ€“Znâ€“Zr magnesium alloy. Journal of Magnesium and Alloys, 2016, 4, 83-88.	5.5	40
8	Effects of texture on anisotropy of mechanical properties in annealed Mgâ€“0.6%Zrâ€“1.0%Cd sheets by unidirectional and cross rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 615, 324-330.	2.6	38
9	The role of long period stacking ordered phase in dynamic recrystallization of a Mgâ€“Znâ€“Y alloy during hot compression. Journal of Alloys and Compounds, 2020, 818, 152814.	2.8	37
10	The role of long-period stacking ordered phases in the deformation behavior of a strong textured Mg-Zn-Gd-Y-Zr alloy sheet processed by hot extrusion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 750, 31-39.	2.6	36
11	Adiabatic shear localization in pure titanium deformed by dynamic loading: Microstructure and microtexture characteristic. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 640, 436-442.	2.6	32
12	Microstructure and mechanical properties of annealed Mgâ€“0.6wt%Zr sheets by unidirectional and cross rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 590, 60-65.	2.6	31
13	Adiabatic shear behaviors in rolled and annealed pure titanium subjected to dynamic impact loading. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 685, 95-106.	2.6	28
14	Evolution of long-period stacking ordered phases and their effect on recrystallization in extruded Mg-Gd-Y-Zn-Zr alloy during annealing. Materials Characterization, 2020, 167, 110515.	1.9	27
15	Microstructure and mechanical properties of Mg-6.75%Zn-0.57%Zr-0.4%Y-0.18%Gd sheets by unidirectional and cross rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 662, 519-527.	2.6	25
16	Mechanical Properties of the Mg-Gd-Y-Zn-Zr Alloys with Different Morphologies of Long-Period Stacking Ordered Phases. Journal of Materials Engineering and Performance, 2018, 27, 6237-6245.	1.2	25
17	Annealing-induced microstructural evolution and mechanical anisotropy improvement of the Mg-Gd-Y-Zr alloy processed by hot ring rolling. Materials Characterization, 2018, 144, 641-651.	1.9	25
18	Microstructure and mechanical anisotropy of the hot rolled Mg-8.1Al-0.7Zn-0.15Ag alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 701, 7-15.	2.6	21

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19	Quasi-static and dynamic forced shear deformation behaviors of Ti-5Mo-5V-8Cr-3Al alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 691, 51-59.	2.6	21
20	Fragmentation of long period stacking ordered (LPSO) phase and its impact on microstructure evolution of a Mgâ€“Yâ€“Zn alloy during multi-directional forging. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 793, 139898.	2.6	20
21	Grain Refinement Mechanisms in Gradient Nanostructured AZ31B Mg Alloy Prepared via Rotary Swaging. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 4053-4065.	1.1	18
22	Effect of heat treatment on the microstructure and mechanical properties of a multidirectionally forged Mg-Gd-Y-Zn-Zr-Ag alloy. Journal of Magnesium and Alloys, 2023, 11, 2042-2053.	5.5	17
23	Interactions between kink band and <mml:math altimg="si1.svg"><mml:mrow><mml:mo stretchy="false">{</mml:mo><mml:mn mathvariant="bold">10</mml:mn><mml:mrow><mml:mover accent="true"><mml:mn mathvariant="bold">1</mml:mn><mml:mo>â€¾</mml:mo></mml:mover></mml:mrow><mml:mn mathvariant="bold">2</mml:mn><mml:mo stretchy="false">}</mml:mo></mml:mrow></mml:math> twinning in a Mgâ€“Zn-Gd alloy containing long period stacking ordered (LPSO) phase. Materials	2.6	15
24	Adiabatic shear deformation behaviors of cold-rolled copper under different impact loading directions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 754, 330-338.	2.6	14
25	Deformation Mechanism of Mg-Gd-Y-Zn-Zr Alloy Containing Long-Period Stacking Ordered Phases During Hot Rolling. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 1911-1923.	1.1	13
26	Formation of nanocrystalline AZ31B Mg alloys via cryogenic rotary swaging. Journal of Magnesium and Alloys, 2023, 11, 1580-1591.	5.5	13
27	Strengthening the Mgâ€“Yâ€“Zn alloy through the formation of nanoscale lamellar structures and nanograins. Journal of Alloys and Compounds, 2021, 886, 161148.	2.8	11
28	Fabrication of Nanocrystalline Highâ€Strength Magnesiumâ^'Lithium Alloy by Rotary Swaging. Advanced Engineering Materials, 2022, 24, 2100666.	1.6	9
29	Analysis of crystallographic twinning and slip in fcc crystals under plane strain compression. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 464, 101-109.	2.6	8
30	Microstructure and Microtexture Evolution of Shear Localization in Dynamic Deformation with Different Strains in Annealed Copper. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 793-805.	1.1	7
31	Manufacturing high-performance Mg alloy through hot extrusion. Materials and Manufacturing Processes, 2018, 33, 863-866.	2.7	7
32	Deformation mechanism, orientation evolution and mechanical properties of annealed cross-rolled Mg-Zn-Zr-Y-Gd sheet during tension. Journal of Magnesium and Alloys, 2023, 11, 2340-2350.	5.5	7
33	Forced shear deformation behaviors of annealed pure titanium under quasi-static and dynamic loading. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 839, 142872.	2.6	7
34	Co-yield surfaces for {111}ã€ˆ110ã€‰ slip and {111}ã€ˆ112ã€‰ twinning in fcc metals. Journal of Materials Science, 2002, 37, 2843-2848.	1.7	5
35	Improving the Ductility of Mgâ€“Gdâ€“Yâ€“Zr Alloy through Extrusion and a Following Rolling. Advanced Engineering Materials, 2018, 20, 1701041.	1.6	5
36	Effects of T5 Treatment on Microstructure and Mechanical Properties at Elevated Temperature of AZ80-Ag Alloy. Materials, 2019, 12, 3214.	1.3	5

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37	The Interaction Between $$ { 10ar{1}2} $$ Twinning and Long-Period Stacking Ordered (LPSO) Phase During Hot Rolling and Annealing Process of a Mg-Gd-Y-Zn-Zr Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 520-530.	1.1	5
38	Computer Simulation of Rolling Textures Evolution of Pure Aluminum with Initial Texture. Materials Transactions, 2004, 45, 2845-2850.	0.4	4
39	Influence of Heat Treatment on Microstructures and Impact Toughness of Mg-Al-Zn Alloy. Jom, 2019, 71, 2874-2883.	0.9	3
40	Analysis for twinning and slip in face-centered cubic crystals under axisymmetric co-deformation. Science in China Series D: Earth Sciences, 2006, 49, 521-536.	0.9	2
41	Influence of Corrosion Morphology on Inductive Impedance of Mg-Gd-Y-Zn-Zr-Ag Alloy. Journal of Materials Engineering and Performance, 2021, 30, 4126-4137.	1.2	2
42	Loading Mode Dependence of {$$10ar{1}2$$} Twin Variant Selection in a Rolled Mg-Al-Zn Alloy. Journal of Materials Engineering and Performance, 2021, 30, 7979-7988.	1.2	1
43	Twinning-Induced Abnormal Strain Rate Sensitivity and Indentation Creep Behavior in Nanocrystalline Mg Alloy. Materials, 2021, 14, 7104.	1.3	1