

Le Zhou

List of Publications by Year in descending order

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89
papers

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citations

172386

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docs citations

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4252
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#	ARTICLE	IF	CITATIONS
1	MoS ₂ /TiO ₂ heterostructures as nonmetal plasmonic photocatalysts for highly efficient hydrogen evolution. <i>Energy and Environmental Science</i> , 2018, 11, 106-114.	15.6	326
2	Microstructure, precipitates and hardness of selectively laser melted AlSi10Mg alloy before and after heat treatment. <i>Materials Characterization</i> , 2018, 143, 5-17.	1.9	201
3	Enhancing Electron Transfer and Electrocatalytic Activity on Crystalline Carbon-Conjugated g-C ₃ N ₄ . <i>ACS Catalysis</i> , 2018, 8, 1926-1931.	5.5	172
4	Microstructure and tensile property of a novel AlZnMgScZr alloy additively manufactured by gas atomization and laser powder bed fusion. <i>Scripta Materialia</i> , 2019, 158, 24-28.	2.6	158
5	Phosphorus and Aluminum Codoped Porous NiO Nanosheets as Highly Efficient Electrocatalysts for Overall Water Splitting. <i>ACS Energy Letters</i> , 2018, 3, 892-898.	8.8	130
6	Surface-Modified Porous Carbon Nitride Composites as Highly Efficient Electrocatalyst for Zn-Air Batteries. <i>Advanced Energy Materials</i> , 2018, 8, 1701642.	10.2	129
7	Microstructure and Thermal Properties of Plasma Sprayed Thermal Barrier Coatings from Nanostructured YSZ. <i>Journal of Thermal Spray Technology</i> , 2010, 19, 1186-1194.	1.6	126
8	NiS ₂ /FeS Holey Film as Freestanding Electrode for High-Performance Lithium Battery. <i>Advanced Energy Materials</i> , 2017, 7, 1701309.	10.2	99
9	Composition-dependent solidification cracking of aluminum-silicon alloys during laser powder bed fusion. <i>Acta Materialia</i> , 2021, 208, 116698.	3.8	97
10	Microstructure, precipitates and mechanical properties of powder bed fused inconel 718 before and after heat treatment. <i>Journal of Materials Science and Technology</i> , 2019, 35, 1153-1164.	5.6	94
11	Overall Water Splitting with Room-Temperature Synthesized NiFe Oxyfluoride Nanoporous Films. <i>ACS Catalysis</i> , 2017, 7, 8406-8412.	5.5	91
12	Periodically Patterned Au-TiO ₂ Heterostructures for Photoelectrochemical Sensor. <i>ACS Sensors</i> , 2017, 2, 621-625.	4.0	86
13	Recent Advances in The Polymer Dispersed Liquid Crystal Composite and Its Applications. <i>Molecules</i> , 2020, 25, 5510.	1.7	84
14	Understanding the Laser Powder Bed Fusion of AlSi10Mg Alloy. <i>Metallography, Microstructure, and Analysis</i> , 2020, 9, 484-502.	0.5	67
15	Strained W(Se _x S _{1-x}) ₂ Nanoporous Films for Highly Efficient Hydrogen Evolution. <i>ACS Energy Letters</i> , 2017, 2, 1315-1320.	8.8	64
16	Microstructure and mechanical properties of Zr-modified aluminum alloy 5083 manufactured by laser powder bed fusion. <i>Additive Manufacturing</i> , 2019, 28, 485-496.	1.7	60
17	Multi-shape-memory effects in a wavelength-selective multicomposite. <i>Journal of Materials Chemistry A</i> , 2015, 3, 13953-13961.	5.2	57
18	Enhanced Photoelectrocatalytic Reduction of Oxygen Using Au@TiO ₂ Plasmonic Film. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 34970-34977.	4.0	52

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19	Laser powder bed fusion of Al-10 wt% Ce alloys: microstructure and tensile property. <i>Journal of Materials Science</i> , 2020, 55, 14611-14625.	1.7	51
20	Process-Dependent Composition, Microstructure, and Printability of Al-Zn-Mg and Al-Zn-Mg-Sc-Zr Alloys Manufactured by Laser Powder Bed Fusion. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 3215-3227.	1.1	48
21	Diffusion kinetics, mechanical properties, and crystallographic characterization of intermetallic compounds in the Mg-Zn binary system. <i>Intermetallics</i> , 2015, 67, 145-155.	1.8	47
22	Microstructural and crystallographic characteristics of modulated martensite, non-modulated martensite, and pre-martensitic tweed austenite in Ni-Mn-Ga alloys. <i>Acta Materialia</i> , 2017, 134, 93-103.	3.8	42
23	An integrated computational materials engineering-anchored closed-loop method for design of aluminum alloys for additive manufacturing. <i>Materialia</i> , 2020, 9, 100574.	1.3	40
24	Effects of crosslinking agent/diluents/thiol on morphology of the polymer matrix and electro-optical properties of polymer-dispersed liquid crystal. <i>Liquid Crystals</i> , 2018, 45, 728-735.	0.9	36
25	Microstructure, mechanical performance, and corrosion behavior of additively manufactured aluminum alloy 5083 with 0.7 and 1.0 wt% Zr addition. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 823, 141679.	2.6	36
26	A novel light diffuser based on the combined morphology of polymer networks and polymer balls in a polymer dispersed liquid crystals film. <i>RSC Advances</i> , 2018, 8, 21690-21698.	1.7	35
27	Freestanding NiFe Oxyfluoride Holey Film with Ultrahigh Volumetric Capacitance for Flexible Asymmetric Supercapacitors. <i>Small</i> , 2018, 14, 1702295.	5.2	34
28	Numerical simulation of high-pressure gas atomization of two-phase flow: Effect of gas pressure on droplet size distribution. <i>Advanced Powder Technology</i> , 2019, 30, 2726-2732.	2.0	34
29	Sc-phthalocyanine sheet: Promising material for hydrogen storage. <i>Applied Physics Letters</i> , 2011, 99, .	1.5	32
30	Additive manufacturing of dense WE43 Mg alloy by laser powder bed fusion. <i>Additive Manufacturing</i> , 2020, 33, 101123.	1.7	30
31	Additive manufacturing and mechanical properties of the dense and crack free Zr-modified aluminum alloy 6061 fabricated by the laser-powder bed fusion. <i>Additive Manufacturing</i> , 2021, 41, 101966.	1.7	28
32	The fabrication of novel optical diffusers based on UV-cured polymer dispersed liquid crystals. <i>Liquid Crystals</i> , 2019, 46, 138-144.	0.9	26
33	Effects of the methacrylate monomers with different end groups on the morphologies, electro-optical and mechanical properties of polymer dispersed liquid crystals composite films. <i>Liquid Crystals</i> , 2021, 48, 722-734.	0.9	26
34	Composition-dependent interdiffusion coefficient, reduced elastic modulus and hardness in β -, β' - and β'' -phases in the Ni-Al system. <i>Journal of Alloys and Compounds</i> , 2017, 727, 153-162.	2.8	25
35	Fabrication of a controllable anti-peeping device with a laminated structure of microlouver and polymer dispersed liquid crystals film. <i>Liquid Crystals</i> , 2019, 46, 2235-2244.	0.9	25
36	Switchable anti-peeping film for liquid crystal displays from polymer dispersed liquid crystals. <i>Liquid Crystals</i> , 2019, 46, 718-724.	0.9	25

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37	Magnetocaloric response of non-stoichiometric Ni ₂ MnGa alloys and the influence of crystallographic texture. <i>Acta Materialia</i> , 2015, 97, 245-256.	3.8	24
38	Preparation of polymer-dispersed liquid crystal doped with indium tin oxide nanoparticles. <i>Liquid Crystals</i> , 2018, 45, 1068-1077.	0.9	23
39	Effect of Polymer Network Topology on the Electro-Optical Performance of Polymer Stabilized Liquid Crystal (PSLC) Devices. <i>Macromolecular Chemistry and Physics</i> , 2020, 221, 2000185.	1.1	23
40	Effects of rigid structures containing (meth)acrylate monomers and crosslinking agents with different chain length on the morphology and electro-optical properties of polymer-dispersed liquid crystal films. <i>Journal of Modern Optics</i> , 2020, 67, 682-691.	0.6	23
41	Strengthening in hybrid alumina-titanium diboride aluminum matrix composites synthesized by ultrasonic assisted reactive mechanical mixing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 702, 312-321.	2.6	21
42	Ligand assisted swelling-deswelling microencapsulation (LASDM) for stable, color tunable perovskite-polymer composites. <i>Nanoscale Advances</i> , 2020, 2, 2034-2043.	2.2	21
43	Microstructural Development in As Built and Heat Treated IN625 Component Additively Manufactured by Laser Powder Bed Fusion. <i>Journal of Phase Equilibria and Diffusion</i> , 2021, 42, 14-27.	0.5	21
44	Elimination of extraordinarily high cracking susceptibility of aluminum alloy fabricated by laser powder bed fusion. <i>Journal of Materials Science and Technology</i> , 2022, 103, 50-58.	5.6	21
45	A Study on the Electro-Optical Properties of Thiol-Ene Polymer Dispersed Cholesteric Liquid Crystal (PDChLC) Films. <i>Molecules</i> , 2017, 22, 317.	1.7	20
46	Oxygen-assisted direct growth of large-domain and high-quality graphene on glass targeting advanced optical filter applications. <i>Nano Research</i> , 2021, 14, 260-267.	5.8	20
47	Interdiffusion and reaction between Zr and Al alloys from 425Å° to 625Å°C. <i>Intermetallics</i> , 2014, 49, 154-162.	1.8	19
48	High strength WE43 microlattice structures additively manufactured by laser powder bed fusion. <i>Materialia</i> , 2021, 16, 101067.	1.3	18
49	Mechanical anomaly observed in Ni-Mn-Ga alloys by nanoindentation. <i>Acta Materialia</i> , 2016, 118, 54-63.	3.8	17
50	Thermally stable transparent sol-gel based active siloxane-oligomer materials with tunable high refractive index and dual reactive groups. <i>RSC Advances</i> , 2016, 6, 70825-70831.	1.7	17
51	Microstructural Characterization of AA6061 Versus AA6061 HIP Bonded Cladding-Cladding Interface. <i>Journal of Phase Equilibria and Diffusion</i> , 2018, 39, 246-254.	0.5	17
52	Effects of Alloy Composition and Solid-State Diffusion Kinetics on Powder Bed Fusion Cracking Susceptibility. <i>Journal of Phase Equilibria and Diffusion</i> , 2021, 42, 5-13.	0.5	17
53	Effects of multifunctional acrylates and thiols on the morphology and electro-optical properties of polymer-dispersed liquid crystal films. <i>Liquid Crystals</i> , 2021, 48, 1457-1466.	0.9	17
54	Improvement of aging kinetics and precipitate size refinement in Mg-Sn alloys by hafnium additions. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 651, 854-858.	2.6	16

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55	Effect of a Polymercaptan Material on the Electro-Optical Properties of Polymer-Dispersed Liquid Crystal Films. <i>Molecules</i> , 2017, 22, 43.	1.7	16
56	Microstructural Development in Inconel 718 Nickel-Based Superalloy Additively Manufactured by Laser Powder Bed Fusion. <i>Metallography, Microstructure, and Analysis</i> , 2022, 11, 88-107.	0.5	16
57	Failure characteristics and mechanisms of EB-PVD TBCs with Pt-modified NiAl bond coats. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 637, 98-106.	2.6	15
58	A novel optical diffuser based on polymer micro-balls-filled nematic liquid crystal composite film. <i>RSC Advances</i> , 2018, 8, 40347-40357.	1.7	15
59	Nonelectric Sustaining Bistable Polymer Framework Liquid Crystal Films with a Novel Semirigid Polymer Matrix. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 22757-22766.	4.0	15
60	Light diffusing, down-converting perovskite-on-polymer microspheres. <i>Journal of Materials Chemistry C</i> , 2019, 7, 6527-6533.	2.7	15
61	Mechanical Behavior Assessment of Ti-6Al-4V ELI Alloy Produced by Laser Powder Bed Fusion. <i>Metals</i> , 2021, 11, 1671.	1.0	15
62	Martensitic transformation and mechanical properties of Ni _{49+x} Mn ₃₆ In ₁₅ (x=0, 0.5, 1.0, 1.5 and 2.0) alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 646, 57-65.	2.6	14
63	Effects of Cr and Ni on interdiffusion and reaction between U and Fe-Cr-Ni alloys. <i>Journal of Nuclear Materials</i> , 2014, 451, 372-378.	1.3	12
64	Unconventional High-Performance Laser Protection System Based on Dichroic Dye-Doped Cholesteric Liquid Crystals. <i>Scientific Reports</i> , 2017, 7, 42955.	1.6	12
65	Microstructural characteristics and mechanical properties of additively manufactured Cu-10Sn alloys by laser powder bed fusion. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 838, 142775.	2.6	12
66	A switchable optical diffuser based on a polymer/nematic liquid crystal composite film with transient polymer balls-networks microstructure. <i>Liquid Crystals</i> , 2019, 46, 2213-2222.	0.9	11
67	Optical diffusers based on uniform nano-sized polymer balls/nematic liquid crystals composite films. <i>Liquid Crystals</i> , 2020, 47, 785-798.	0.9	10
68	Effect of functionality of thiol on the optical properties of liquid crystals/polymer composite films. <i>Liquid Crystals</i> , 2021, 48, 313-321.	0.9	10
69	Design of heterogeneous structured Al alloys with wide processing window for laser-powder bed fusion additive manufacturing. <i>Additive Manufacturing</i> , 2021, 42, 102002.	1.7	10
70	Reprogrammable Assembly of Molecular Motor on Solid Surfaces via Dynamic Bonds. <i>Small</i> , 2017, 13, 1700480.	5.2	9
71	Phase Transformations and Microstructural Development in the U-10 Wt% Mo Alloy with Varying Zr Contents After Heat Treatments Relevant to the Monolithic Fuel Plate Fabrication Process. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 72-96.	1.1	9
72	Anomalous growth of Al ₈ Mo ₃ phase during interdiffusion and reaction between Al and Mo. <i>Journal of Nuclear Materials</i> , 2020, 539, 152337.	1.3	9

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73	High throughput mechanical testing platform and application in metal additive manufacturing and process optimization. <i>Journal of Manufacturing Processes</i> , 2021, 66, 494-505.	2.8	9
74	Microstructural Development and Ternary Interdiffusion in Ni-Mn-Ga Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015, 46, 5572-5587.	1.1	8
75	The Electro-Optical Properties and Adhesion Strength of Epoxy-Polymercaptan-Based Polymer Dispersed Liquid Crystal Films. <i>Crystals</i> , 2021, 11, 576.	1.0	8
76	Atomistic study on the interaction of nitrogen and Mg lattice and the nitride formation in nanocrystalline Mg alloys synthesized using cryomilling process. <i>Acta Materialia</i> , 2016, 115, 295-307.	3.8	7
77	The effective control of Cu through-silicon via extrusion for three-dimensional integrated circuits by a metallic cap layer. <i>Scripta Materialia</i> , 2019, 164, 101-104.	2.6	7
78	<i>In situ</i> TEM Characterization of Microstructure Evolution and Mechanical Behavior of the 3D-Printed Inconel 718 Exposed to High Temperature. <i>Microscopy and Microanalysis</i> , 2021, 27, 250-256.	0.2	7
79	184: Converting Light Diffusing Polymer Powders into Stable Perovskite-Based Tunable Downconverters. <i>Digest of Technical Papers SID International Symposium</i> , 2018, 49, 222-224.	0.1	5
80	Microstructural and Crystallographic Characterization of Ni _{2+x} Mn _{1-x} Ga Alloys (x=0.14, 0.16, 0.19). <i>Journal of Applied Physics</i> , 2018, 124, 239-246.	0.5	4
81	Noncontact stress measurement from bare UHPC surface using Raman piezospectroscopy. <i>Journal of Raman Spectroscopy</i> , 2018, 49, 1540-1551.	1.2	4
82	Nanostructured tungsten through cryogenic attrition. <i>International Journal of Refractory Metals and Hard Materials</i> , 2015, 52, 70-77.	1.7	2
83	Microstructure and mechanical behavior of the 3D printed Inconel 718: In-situ TEM study. <i>Microscopy and Microanalysis</i> , 2018, 24, 1942-1943.	0.2	2
84	Holey Films: Freestanding NiFe Oxyfluoride Holey Film with Ultrahigh Volumetric Capacitance for Flexible Asymmetric Supercapacitors (<i>Small</i> 3/2018). <i>Small</i> , 2018, 14, 1870014.	5.2	1
85	Effects of Degassing on the Microstructure, Chemistry, and Estimated Mechanical Properties of a Cryomilled Al-Mg Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 3066-3079.	1.1	1
86	Diffusion and its Application in NiMnGa Alloys. <i>Journal of Applied Physics</i> , 2018, 124, 80-95.		1
87	HOT-CORROSION BEHAVIOR OF THERMAL BARRIER COATED DZ125 SUPERALLOY EXPOSED TO ATOMIZED SEAWATER AND KEROSENE. <i>International Journal of Modern Physics B</i> , 2010, 24, 3155-3160.	1.0	0
88	Lithium Batteries: NiS ₂ /FeS Holey Film as Freestanding Electrode for High-Performance Lithium Battery (<i>Adv. Energy Mater.</i> 22/2017). <i>Advanced Energy Materials</i> , 2017, 7, .	10.2	0
89	653: Light Diffusing, Down-Converting Perovskite-Polymer Microspheres. <i>Digest of Technical Papers SID International Symposium</i> , 2019, 50, 917-920.	0.1	0