

Qiaodan Hu

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Unveiling the Growth Mechanism of Faceted Primary Al ₂ Cu with Complex Morphologies During Solidification. <i>Acta Metallurgica Sinica (English Letters)</i> , 2022, 35, 124-132.	1.5	4
2	Atomic tuning effect of TiB ₂ particles on the liquid phase separation behavior of an Al-Bi immiscible alloy. <i>Scripta Materialia</i> , 2022, 209, 114365.	2.6	4
3	Dramatic impact of the TiO ₂ polymorph on the electrical properties of $\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3$ ceramics prepared by solid-state reaction. <i>Journal of Materials Chemistry A</i> , 2022, 10, 891-901.	5.2	9
4	Preface to the Special Issue: Application of Synchrotron Radiation in Materials Research. <i>Acta Metallurgica Sinica (English Letters)</i> , 2022, 35, 1-2.	1.5	1
5	Effect of cooling rate on the 3D morphology of the proeutectic Al ₃ Ni intermetallic compound formed at the Al/Ni interface after solidification. <i>Journal of Materials Science and Technology</i> , 2021, 69, 60-68.	5.6	9
6	Recent Progress in Metallurgical Bonding Mechanisms at the Liquid/Solid Interface of Dissimilar Metals Investigated via in situ X-ray Imaging Technologies. <i>Acta Metallurgica Sinica (English Letters)</i> , 2021, 34, 145-168.	1.5	25
7	Anomalous structure transition in undercooled melt regulates polymorphic selection in barium titanate crystallization. <i>Communications Chemistry</i> , 2021, 4, .	2.0	6
8	Bubble-induced formation of new intermetallic compounds in an Al-Mn alloy during heating observed by synchrotron radiography. <i>Materialia</i> , 2021, 15, 100991.	1.3	1
9	Microstructure evolution, solidification characteristic and magnetocaloric properties of MnFePO ₄ ·5SiO ₅ particles by droplet melting. <i>Intermetallics</i> , 2021, 131, 107102.	1.8	6
10	Inhibiting effect of heterogeneous cations aggregation enhanced by oxygen deficiency on glass formation of BaTi ₂ O ₅ melts. <i>Journal of the American Ceramic Society</i> , 2021, 104, 6207-6226.	1.9	2
11	Introduction of low strain energy GdAlO ₃ grain boundaries into directionally solidified Al ₂ O ₃ /GdAlO ₃ eutectics. <i>Acta Materialia</i> , 2021, 221, 117355.	3.8	24
12	On the role of cooling rate and temperature in forming twinned ϵ martensite in Ti-6Al-4V. <i>Journal of Alloys and Compounds</i> , 2020, 813, 152247.	2.8	30
13	Direct formation of La(Fe,Si) ₁₃ phase with enhanced mechanical property of off-stoichiometric La _{1.7} Fe _{11.6} Si _{1.4} alloys by directional solidification. <i>Journal of Alloys and Compounds</i> , 2020, 817, 152694.	2.8	9
14	Bubble growth, intermetallic compounds dissolution and their interactions during heating of an Al-5wt.%Mn alloy by in-situ synchrotron radiography. <i>Journal of Alloys and Compounds</i> , 2020, 822, 153554.	2.8	3
15	From insulator to oxide-ion conductor by a synergistic effect from defect chemistry and microstructure: acceptor-doped Bi-excess sodium bismuth titanate Na _{0.5} Bi _{0.51} TiO _{3.015} . <i>Journal of Materials Chemistry A</i> , 2020, 8, 25120-25130.	5.2	33
16	In Situ Analysis of Multiphase Compounds at the Liquid Al-Solid Cu Interface: Formation Sequence, Growth Kinetics and Critical Thickness. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 5245-5256.	1.1	4
17	Dynamic behaviors of minor droplets and the role of bubbles in phase-separating Al Bi immiscible alloy. <i>Journal of Molecular Liquids</i> , 2020, 320, 114478.	2.3	7
18	Reduced Annealing Time and Enhanced Magnetocaloric Effect of La(Fe, Al) ₁₃ Alloy by La-nonstoichiometry and Si-doping. <i>Acta Metallurgica Sinica (English Letters)</i> , 2020, 33, 1535-1542.	1.5	3

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19	Atomic scale structural analysis of liquid immiscibility in binary silicate melt: A case of SiO ₂ -TiO ₂ system. <i>Journal of Materials Science and Technology</i> , 2020, 53, 53-60.	5.6	2
20	Intergrowth mechanism and morphology prediction of faceted Al ₃ Ni formed during solidification by a spatial geometric model. <i>Journal of Materials Science and Technology</i> , 2020, 54, 40-47.	5.6	6
21	A New Sight of the Growth Characteristics of Solidified Al ₃ Ni at the Liquid-Solid Interface by Synchrotron Radiography and 3D Tomography. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 2689-2696.	1.1	5
22	Effect of Si on the Growth Behavior of the Fe ₂ Al ₅ Phase at Al-xSi(liquid)/Fe(solid) Interface During Holding by In-Situ Synchrotron Radiography. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 2711-2718.	1.1	20
23	Kinetic role of Cu content in reaction process, behavior and their relationship among Cu-Zr-C system. <i>Journal of Materials Science and Technology</i> , 2019, 35, 2375-2382.	5.6	4
24	Polymorphic transition and nucleation pathway of barium ditanate (BaTi ₂ O ₅) during crystallization from undercooled liquid. <i>Scientific Reports</i> , 2019, 9, 7207.	1.6	8
25	Static coarsening behaviour of lamellar microstructure in selective laser melted Ti-6Al-4V. <i>Journal of Materials Science and Technology</i> , 2019, 35, 1578-1586.	5.6	48
26	Ambiguous temperature difference in aerodynamic levitation process: Modelling, solving and application. <i>Journal of Materials Science and Technology</i> , 2019, 35, 1636-1643.	5.6	6
27	In-situ study on hydrogen bubble evolution in the liquid Al/solid Ni interconnection by synchrotron radiation X-ray radiography. <i>Journal of Materials Science and Technology</i> , 2019, 35, 1388-1392.	5.6	14
28	Continuous Morphological Transition and Its Mechanism of Al ₃ Ni Phase at the Liquid-Solid Interface During Solidification. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 556-561.	1.1	10
29	Microstructure and magnetic property of LaFe _{11.6} Si _{1.4} magnetocaloric alloys by a novel short time heat treatment. <i>Intermetallics</i> , 2019, 105, 1-5.	1.8	15
30	A Full View of the Interfacial Behavior Between the Liquid Al and Solid Ni by Synchrotron Radiation. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 300-310.	1.1	14
31	In-Situ Observation on the Diversified Morphology and Growth Behavior of Al ₃ Ni Phase at the Liquid Al/Solid Ni Interface. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 1486-1491.	1.1	8
32	The Nucleation Potency of In Situ-Formed Oxides in Liquid Iron. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 1762-1769.	1.1	5
33	Martensite transformation, mechanical properties and shape memory effects of Ni-Mn-In-Mg shape memory alloys. <i>Progress in Natural Science: Materials International</i> , 2018, 28, 60-65.	1.8	9
34	Microstructural evolution and growth behavior of intermetallic compounds at the liquid Al/solid Fe interface by synchrotron X-ray radiography. <i>Materials Characterization</i> , 2018, 136, 157-164.	1.9	51
35	Simulation of Macrosegregation and Shrinkage Cavity in an Al-4.5 Wt Pct Cu Ingot Using a Four-Phase Model. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 6243-6254.	1.1	13
36	In Situ Observation on Bubble Behavior of Solidifying Al-Ni Alloy Under the Interference of Intermetallic Compounds. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 4429-4434.	1.1	13

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37	Heterogeneous Nucleation Behavior in Al Deoxidized Liquid Iron. <i>Materials Transactions</i> , 2018, 59, 1949-1951.	0.4	2
38	Orientation Relationship Between Magnetic Domains and Twins in Ni ₅₂ Fe ₁₇ Ga ₂₇ Co ₄ Magnetic Shape Memory Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 2675-2681.	1.1	4
39	Internal friction behaviors of Ni-Mn-In magnetic shape memory alloy with two-step structural transformation. <i>Progress in Natural Science: Materials International</i> , 2017, 27, 356-361.	1.8	4
40	A Full View of the Segregation Evolution in Al-Bi Immiscible Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 2701-2705.	1.1	12
41	In situ observation on the formation of intermetallics compounds at the interface of liquid Al/solid Ni. <i>Scripta Materialia</i> , 2017, 130, 214-218.	2.6	37
42	On the Driving Forces of Magnetically Induced Martensitic Transformation in Directionally Solidified Polycrystalline Ni-Mn-In Meta-Magnetic Shape Memory Alloy with Structural Anisotropy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 5480-5491.	1.1	12
43	A Homogeneous Billet Layer Casting Fabrication Method. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 4453-4457.	1.1	9
44	Peritectic Solidification Path of the La(Fe,Si) ₁₃ Phase in Dual-Phase Directionally Solidified La-Fe-Si Magnetocaloric Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 4229-4236.	1.1	11
45	Quantitatively Analyzing Strength Contribution vs Grain Boundary Scale Relation in Pure Titanium Subjected to Severe Plastic Deformation. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 1922-1928.	1.1	31
46	Quantitative Analysis of Heterogeneous Microstructure and Diversified Strengthening Mechanisms in Spark Plasma Sintered Molybdenum Disilicide. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015, 46, 1443-1449.	1.1	6
47	<i>In Situ</i> Ceramic Particles Locally Reinforced Matrix Composites Prepared by SHS Casting Method from the Al-Si-Ti-C System. <i>International Journal of Applied Ceramic Technology</i> , 2014, 11, 723-731.	1.1	6
48	Reaction behavior and formation mechanism of ZrC and ZrB ₂ in the Cu-Zr-B ₄ C system. <i>International Journal of Refractory Metals and Hard Materials</i> , 2014, 43, 102-108.	1.7	12
49	Grain Refinement and Delta Ferrite Reduction of High Cr Steel Ingots by Thermal Control. <i>ISIJ International</i> , 2014, 54, 2302-2308.	0.6	5
50	A Quantified Complex Strengthening Mechanism in Solid-State Recycled Titanium. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013, 44, 1651-1655.	1.1	4
51	Thermal explosion synthesis of ZrC particles and their mechanism of formation from Al-Zr-C elemental powders. <i>International Journal of Refractory Metals and Hard Materials</i> , 2012, 35, 251-256.	1.7	9
52	In situ Synthesis of Nano-sized ZrC and Its Formation Mechanism by Combustion Synthesis from Zr-Cu System. <i>ISIJ International</i> , 2011, 51, 1576-1579.	0.6	1
53	Purification of an industrial aluminum alloy by melt stirring during Ohno Continuous Casting process. <i>Materials Letters</i> , 2011, 65, 2248-2250.	1.3	2