# Qiaodan Hu

List of Publications by Year
in descending order

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Version: 2024-02-01

| 53 | 598 | 759055 12 | 713332 21 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 53 | 53 | 53 | 483 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Microstructural evolution and growth behavior of intermetallic compounds at the liquid Al/solid Fe interface by synchrotron X-ray radiography. Materials Characterization, 2018, 136, 157-164. | 1.9 | 51 |
| 2 | Static coarsening behaviour of lamellar microstructure in selective laser melted Tiâ€“6Alâ€“4V. Journal of Materials Science and Technology, 2019, 35, 1578-1586. | 5.6 | 48 |
| 3 | In situ observation on the formation of intermetallics compounds at the interface of liquid Al/solid Ni. Scripta Materialia, 2017, 130, 214-218. | 2.6 | 37 |
| 4 | From insulator to oxide-ion conductor by a synergistic effect from defect chemistry and microstructure: acceptor-doped Bi-excess sodium bismuth titanate Na<sub>0.5</sub>Bi<sub>0.51</sub>TiO<sub>3.015</sub>. Journal of Materials Chemistry A, 2020, 8, 25120-25130. | 5.2 | 33 |
| 5 | Quantitatively Analyzing Strength Contribution vs Grain Boundary Scale Relation in Pure Titanium Subjected to Severe Plastic Deformation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 1922-1928. | 1.1 | 31 |
| 6 | On the role of cooling rate and temperature in forming twinned Î±â€™ martensite in Tiâ€“6Alâ€“4V. Journal of Alloys and Compounds, 2020, 813, 152247. | 2.8 | 30 |
| 7 | Recent Progress in Metallurgical Bonding Mechanisms at the Liquid/Solid Interface of Dissimilar Metals Investigated via in situ X-ray Imaging Technologies. Acta Metallurgica Sinica (English Letters), 2021, 34, 145-168. | 1.5 | 25 |
| 8 | Introduction of low strain energy GdAlO3 grain boundaries into directionally solidified Al2O3/GdAlO3 eutectics. Acta Materialia, 2021, 221, 117355. | 3.8 | 24 |
| 9 | Effect of Si on the Growth Behavior of the Fe2Al5 Phase at Al-xSi(liquid)/Fe(solid) Interface During Holding by In-Situ Synchrotron Radiography. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 2711-2718. | 1.1 | 20 |
| 10 | Microstructure and magnetic property of LaFe11.6Si1.4 magnetocaloric alloys by a novel short time heat treatment. Intermetallics, 2019, 105, 1-5. | 1.8 | 15 |
| 11 | In-situ study on hydrogen bubble evolution in the liquid Al/solid Ni interconnection by synchrotron radiation X-ray radiography. Journal of Materials Science and Technology, 2019, 35, 1388-1392. | 5.6 | 14 |
| 12 | A Full View of the Interfacial Behavior Between the Liquid Al and Solid Ni by Synchrotron Radiation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 300-310. | 1.1 | 14 |
| 13 | Simulation of Macrosegregation and Shrinkage Cavity in an Al-4.5 Wt Pct Cu Ingot Using a Four-Phase Model. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 6243-6254. | 1.1 | 13 |
| 14 | In Situ Observation on Bubble Behavior of Solidifying Al-Ni Alloy Under the Interference of Intermetallic Compounds. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 4429-4434. | 1.1 | 13 |
| 15 | Reaction behavior and formation mechanism of ZrC and ZrB2 in the Cuâ€“Zrâ€“B4C system. International Journal of Refractory Metals and Hard Materials, 2014, 43, 102-108. | 1.7 | 12 |
| 16 | A Full View of the Segregation Evolution in Alâ€“Bi Immiscible Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 2701-2705. | 1.1 | 12 |
| 17 | On the Driving Forces of Magnetically Induced Martensitic Transformation in Directionally Solidified Polycrystalline Ni-Mn-In Meta-Magnetic Shape Memory Alloy with Structural Anisotropy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 5480-5491. | 1.1 | 12 |
| 18 | Peritectic Solidification Path of the La(Fe,Si)13 Phase in Dual-Phase Directionally Solidified La-Fe-Si Magnetocaloric Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 4229-4236. | 1.1 | 11 |

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|---|---|---|---|
| 19 | Continuous Morphological Transition and Its Mechanism of Al3Ni Phase at the Liquidâ€“Solid Interface During Solidification. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 556-561. | 1.1 | 10 |
| 20 | Thermal explosion synthesis of ZrC particles and their mechanism of formation from Alâ€“Zrâ€“C elemental powders. International Journal of Refractory Metals and Hard Materials, 2012, 35, 251-256. | 1.7 | 9 |
| 21 | A Homogeneous Billet Layer Casting Fabrication Method. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 4453-4457. | 1.1 | 9 |
| 22 | Martensite transformation, mechanical properties and shape memory effects of Ni-Mn-In-Mg shape memory alloys. Progress in Natural Science: Materials International, 2018, 28, 60-65. | 1.8 | 9 |
| 23 | Direct formation of La(Fe,Si)13 phase with enhanced mechanical property of off-stoichiometric La1.7Fe11.6Si1.4 alloys by directional solidification. Journal of Alloys and Compounds, 2020, 817, 152694. | 2.8 | 9 |
| 24 | Effect of cooling rate on the 3D morphology of the proeutectic Al3Ni intermetallic compound formed at the Al/Ni interface after solidification. Journal of Materials Science and Technology, 2021, 69, 60-68. | 5.6 | 9 |
| 25 | Dramatic impact of the TiO<sub>2</sub> polymorph on the electrical properties of â€˜stoichiometricâ€™ Na<sub>0.5</sub>Bi<sub>0.5</sub>TiO<sub>3</sub> ceramics prepared by solid-state reaction. Journal of Materials Chemistry A, 2022, 10, 891-901. | 5.2 | 9 |
| 26 | In-Situ Observation on the Diversified Morphology and Growth Behavior of Al3Ni Phase at the Liquid Al/Solid Ni Interface. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 1486-1491. | 1.1 | 8 |
| 27 | Polymorphic transition and nucleation pathway of barium dititanate (BaTi2O5) during crystallization from undercooled liquid. Scientific Reports, 2019, 9, 7207. | 1.6 | 8 |
| 28 | Dynamic behaviors of minor droplets and the role of bubbles in phase-separating Al Bi immiscible alloy. Journal of Molecular Liquids, 2020, 320, 114478. | 2.3 | 7 |
| 29 | <scp>I</scp>n <scp>S</scp>itu <scp>T</scp>i<scp>C</scp> Ceramic Particles Locally Reinforced <scp>A</scp>lâ€<scp>S</scp>i Matrix Composites Prepared by SHSâ€Casting Method from the <scp>A</scp>lâ€<scp>S</scp>iâ€<scp>T</scp>iâ€<scp>C</scp> System. International Journal of Applied Ceramic Technology, 2014, 11, 723-731. | 1.1 | 6 |
| 30 | Quantitative Analysis of Heterogeneous Microstructure and Diversified Strengthening Mechanisms in Spark Plasma Sintered Molybdenum Disilicide. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 1443-1449. | 1.1 | 6 |
| 31 | Ambiguous temperature difference in aerodynamic levitation process: Modelling, solving and application. Journal of Materials Science and Technology, 2019, 35, 1636-1643. | 5.6 | 6 |
| 32 | Intergrowth mechanism and morphology prediction of faceted Al3Ni formed during solidification by a spatial geometric model. Journal of Materials Science and Technology, 2020, 54, 40-47. | 5.6 | 6 |
| 33 | Anomalous structure transition in undercooled melt regulates polymorphic selection in barium titanate crystallization. Communications Chemistry, 2021, 4, . | 2.0 | 6 |
| 34 | Microstructure evolution, solidification characteristic and magnetocaloric properties of MnFeP0Â·5Si0.5 particles by droplet melting. Intermetallics, 2021, 131, 107102. | 1.8 | 6 |
| 35 | Grain Refinement and Delta Ferrite Reduction of High Cr Steel Ingots by Thermal Control. ISIJ International, 2014, 54, 2302-2308. | 0.6 | 5 |
| 36 | The Nucleation Potency of In Situ-Formed Oxides in Liquid Iron. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 1762-1769. | 1.1 | 5 |

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|---|---|---|---|
| 37 | A New Sight of the Growth Characteristics of Solidified Al3Ni at the Liquidâ€“Solid Interface by Synchrotron Radiography and 3D Tomography. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 2689-2696. | 1.1 | 5 |
| 38 | A Quantified Complex Strengthening Mechanism in Solid-State Recycled Titanium. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 1651-1655. | 1.1 | 4 |
| 39 | Orientation Relationship Between Magnetic Domains and Twins in Ni52Fe17Ga27Co4 Magnetic Shape Memory Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 2675-2681. | 1.1 | 4 |
| 40 | Internal friction behaviors of Ni-Mn-In magnetic shape memory alloy with two-step structural transformation. Progress in Natural Science: Materials International, 2017, 27, 356-361. | 1.8 | 4 |
| 41 | Kinetic role of Cu content in reaction process, behavior and their relationship among Cu-Zr-C system. Journal of Materials Science and Technology, 2019, 35, 2375-2382. | 5.6 | 4 |
| 42 | In Situ Analysis of Multiphase Compounds at the Liquid Al-Solid Cu Interface: Formation Sequence, Growth Kinetics and Critical Thickness. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 5245-5256. | 1.1 | 4 |
| 43 | Unveiling the Growth Mechanism of Faceted Primary Al2Cu with Complex Morphologies During Solidification. Acta Metallurgica Sinica (English Letters), 2022, 35, 124-132. | 1.5 | 4 |
| 44 | Atomic tuning effect of TiB2 particles on the liquid phase separation behavior of an Al-Bi immiscible alloy. Scripta Materialia, 2022, 209, 114365. | 2.6 | 4 |
| 45 | Bubble growth, intermetallic compounds dissolution and their interactions during heating of an Al-5wt.%Mn alloy by in-situ synchrotron radiography. Journal of Alloys and Compounds, 2020, 822, 153554. | 2.8 | 3 |
| 46 | Reduced Annealing Time and Enhanced Magnetocaloric Effect of La(Fe, Al)13 Alloy by La-nonstoichiometry and Si-doping. Acta Metallurgica Sinica (English Letters), 2020, 33, 1535-1542. | 1.5 | 3 |
| 47 | Purification of an industrial aluminum alloy by melt stirring during Ohno Continuous Casting process. Materials Letters, 2011, 65, 2248-2250. | 1.3 | 2 |
| 48 | Atomic scale structural analysis of liquid immiscibility in binary silicate melt: A case of SiO2â€'TiO2 system. Journal of Materials Science and Technology, 2020, 53, 53-60. | 5.6 | 2 |
| 49 | Inhibiting effect of heterogeneous cations aggregation enhanced by oxygen deficiency on glass formation of BaTi<sub>2</sub>O<sub>5</sub> melts. Journal of the American Ceramic Society, 2021, 104, 6207-6226. | 1.9 | 2 |
| 50 | Heterogeneous Nucleation Behavior in Al Deoxidized Liquid Iron. Materials Transactions, 2018, 59, 1949-1951. | 0.4 | 2 |
| 51 | In situ Synthesis of Nano-sized ZrC and Its Formation Mechanism by Combustion Synthesis from Zrâ€“Câ€“Cu System. ISIJ International, 2011, 51, 1576-1579. | 0.6 | 1 |
| 52 | Bubble-induced formation of new intermetallic compounds in an Alâ€“Mn alloy during heating observed by synchrotron radiography. Materialia, 2021, 15, 100991. | 1.3 | 1 |
| 53 | Preface to the Special Issue: Application of Synchrotron Radiation in Materials Research. Acta Metallurgica Sinica (English Letters), 2022, 35, 1-2. | 1.5 | 1 |