

# Henry Hu

## List of Publications by Year in descending order

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95  
papers

1,586  
citations

361413

20  
h-index

330143

37  
g-index

109  
all docs

109  
docs citations

109  
times ranked

1337  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mathematical modelling of solidification and melting: a review. <i>Modelling and Simulation in Materials Science and Engineering</i> , 1996, 4, 371-396.	2.0	365
2	Potential Magnesium Alloys for High Temperature Die Cast Automotive Applications: A Review. <i>Materials and Manufacturing Processes</i> , 2003, 18, 687-717.	4.7	125
3	Optimization of the electrolytic plasma oxidation processes for corrosion protection of magnesium alloy AM50 using the Taguchi method. <i>Journal of Materials Processing Technology</i> , 2007, 182, 58-64.	6.3	73
4	Influence of applied pressure on microstructure and tensile properties of squeeze cast magnesium Mg-Al-Ca alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 3589-3593.	5.6	71
5	Effect of Ca additions on microstructure and microhardness of an as-cast Mg-5.0wt.% Al alloy. <i>Materials Letters</i> , 2008, 62, 381-384.	2.6	70
6	Numerical optimization of gating system parameters for a magnesium alloy casting with multiple performance characteristics. <i>Journal of Materials Processing Technology</i> , 2008, 199, 256-264.	6.3	57
7	Microstructure and nano-scale mechanical behavior of Mg-Al and Mg-Al-Ca alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 473, 16-27.	5.6	56
8	Tensile behaviour and microstructure of magnesium AM60-based hybrid composite containing Al <sub>2</sub> O <sub>3</sub> fibres and particles. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 607, 269-276.	5.6	54
9	Determination of heat transfer coefficients by extrapolation and numerical inverse methods in squeeze casting of magnesium alloy AM60. <i>Journal of Materials Processing Technology</i> , 2011, 211, 1432-1440.	6.3	49
10	Numerical simulation of squeeze cast magnesium alloy AZ91D. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2002, 10, 1-11.	2.0	47
11	Microstructure and Tensile Properties of Squeeze Cast Magnesium Alloy AM50. <i>Journal of Materials Engineering and Performance</i> , 2005, 14, 539-545.	2.5	45
12	Effects of coating thickness on thermal conductivities of alumina coatings and alumina/aluminum hybrid materials prepared using plasma electrolytic oxidation. <i>Surface and Coatings Technology</i> , 2012, 207, 96-101.	4.8	42
13	Effects of niobium addition on microstructure and tensile behavior of as-cast ductile iron. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 688, 416-428.	5.6	29
14	Tensile behaviour and fracture characteristics of die cast magnesium alloy AM50. <i>Journal of Materials Processing Technology</i> , 2008, 201, 364-368.	6.3	27
15	Pressurized solidification of magnesium alloy AM50A. <i>Journal of Materials Processing Technology</i> , 2007, 191, 247-250.	6.3	24
16	Grain microstructure evolution of Mg (AM50A)/SiCp metal matrix composites. <i>Scripta Materialia</i> , 1998, 39, 1015-1022.	5.2	23
17	Mathematical modelling of magnesium reduction in a novel vertical Pidgeon process. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2002, 10, 413-423.	2.0	23
18	The effect of cooling rates on the refinement of microstructure and the nanoscale indentation creep behavior of Mg-Al-Ca alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009, 512, 58-66.	5.6	23

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19	Effect of cooling water flow rates on local temperatures and heat transfer of casting dies. Journal of Materials Processing Technology, 2004, 148, 57-67.	6.3	22
20	As-cast magnesium AM60-based hybrid nanocomposite containing alumina fibres and nanoparticles: Microstructure and tensile behavior. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 740-741, 305-314.	5.6	21
21	Die Castability Assessment of Magnesium Alloys for High Temperature Applications: Part 1 of 2. , 2000, , .		19
22	Microstructure and Tensile Properties of Mg (AM60)/Al <sub>2</sub> O <sub>3</sub> Metal Matrix Composites with Varying Volume Fractions of Fiber Reinforcement. Journal of Materials Engineering and Performance, 2015, 24, 4601-4611.	2.5	18
23	Al Alloys and Casting Processes for Induction Motor Applications in Battery-Powered Electric Vehicles: A Review. Metals, 2022, 12, 216.	2.3	15
24	The hydrolysis behaviour of Mg <sub>2</sub> Ni and Mg <sub>2</sub> NiH <sub>4</sub> in water or a 6M KOH solution and its application to Ni nanoparticles synthesis. Journal of Alloys and Compounds, 2009, 470, 539-543.	5.5	13
25	Experimental Study and Numerical Verification of Heat Transfer in Squeeze Casting of Aluminum Alloy A443. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2012, 43, 1676-1683.	2.1	13
26	Influence of Applied Pressure on Tensile Behaviour and Microstructure of Squeeze Cast Mg Alloy AM50 with Ca Addition. Journal of Materials Engineering and Performance, 2012, 21, 38-46.	2.5	13
27	Processing maps of extruded AZ80+ 0.4% Ce magnesium alloy. Journal of Alloys and Compounds, 2020, 844, 156064.	5.5	12
28	Effect of Section Thicknesses on Tensile Behavior and Microstructure of High Pressure Die Cast Magnesium Alloy AM50. Materials Science Forum, 2005, 475-479, 463-468.	0.3	11
29	Solidification of Discontinuous Al <sub>2</sub> O <sub>3</sub> /MgO Fiber Reinforced Magnesium (AM60) Matrix Composite. Defect and Diffusion Forum, 0, 312-315, 277-282.	0.4	10
30	Influence of Aging Temperatures and Times on Mechanical Properties of Vacuum High Pressure Die Cast Aluminum Alloy A356. Advanced Materials Research, 2012, 445, 277-282.	0.3	10
31	INFLUENCE OF ELECTROLYTIC PLASMA OXIDATION COATING ON TENSILE BEHAVIOR OF DIE-CAST AM50 ALLOY SUBJECTED TO SALT CORROSION. International Journal of Modern Physics B, 2009, 23, 960-965.	2.0	9
32	Experimental observations of tyre deformation characteristics on heavy mining vehicles under static and quasi-static loading. Journal of Terramechanics, 2012, 49, 215-231.	3.1	9
33	Characterization and kinetic modeling of secondary phases in squeeze cast Al alloy A380 by DSC thermal analysis. China Foundry, 2017, 14, 98-107.	1.4	9
34	Microstructure, Tensile Properties and Fracture Behavior of Squeeze-Cast Mg Alloy AZ91 with Thick Cross Section. Journal of Materials Engineering and Performance, 2020, 29, 4130-4141.	2.5	9
35	Study on High Strain Rate Superplasticity of A 6061Al Alloy Composite Reinforced With 30 Vol.% AlN Particulate. Journal of Materials Engineering and Performance, 2004, 13, 200-207.	2.5	8
36	A fuzzy PID thermal control system for casting dies. Journal of Intelligent Manufacturing, 2008, 19, 375-382.	7.3	8

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37	Ultra-Mild Wear of Al <sub>2</sub> O <sub>3</sub> Fibre and Particle Reinforced Magnesium Matrix Composites. <i>Advanced Materials Research</i> , 2012, 445, 503-508.	0.3	8
38	Creep and Bolt Load Retention Behavior of Die Cast Magnesium Alloys for High Temperature Applications: Part 2 of 2. , 0, , .		7
39	Thermal analysis of casting dies with local temperature controller. <i>International Journal of Advanced Manufacturing Technology</i> , 2007, 33, 277-284.	3.0	7
40	Development of Hybrid Magnesium-based Composites. , 2010, , .		7
41	Numerical simulation of heat transfer in pressurized solidification of Magnesium alloy AM50. <i>Heat and Mass Transfer</i> , 2011, 47, 1241-1249.	2.1	7
42	Nano-yttrium-containing precipitates of T6 heat-treated A356.2 alloy when trace yttrium (Y less than) Tj ETQq0 0 0,rgBT /Overlock 10 Tf	7.1	7
43	Strain-Hardening and Fracture Behavior of Die Cast Magnesium Alloy AM50. <i>Research Letters in Materials Science</i> , 2007, 2007, 1-5.	0.2	6
44	Numerical Analysis of Thermal Distributions in Aluminum Engine Cylinders Influenced by Alumina Ceramic Coatings. <i>Numerical Heat Transfer; Part A: Applications</i> , 2012, 62, 463-478.	2.1	6
45	Tensile Properties and Microstructure of Joined Vacuum Die Cast Aluminum Alloy A356 (T6) and Wrought Alloy 6061. <i>Advanced Materials Research</i> , 0, 939, 90-97.	0.3	6
46	Multi-objective optimal gating and riser design for metal-casting. , 2009, , .		5
47	Microstructure and tensile properties of squeeze cast aluminium alloy A380 containing Ni and Sr addition. <i>Advances in Materials and Processing Technologies</i> , 2017, 3, 90-100.	1.4	5
48	Effect of Ni addition on tensile properties of squeeze cast Al alloy A380. <i>Advances in Materials and Processing Technologies</i> , 2018, 4, 200-209.	1.4	5
49	Nano microstructure development and solidification of Zn-6wt% Al hypereutectic alloy. <i>Materials Characterization</i> , 2019, 147, 295-302.	4.4	5
50	Wear Protection of Al383/SiO2 Metal Matrix Composites by Plasma Electrolytic Oxidation (PEO) Process. <i>SAE International Journal of Materials and Manufacturing</i> , 0, 3, 55-62.	0.3	4
51	Stress and fatigue life analyses of a five-piece rim and the proposed optimization with a two-piece rim. <i>Journal of Terramechanics</i> , 2014, 52, 31-45.	3.1	4
52	Influence of Wall Stocks on Mechanical Properties of HPDC AZ91. <i>Key Engineering Materials</i> , 0, 793, 41-45.	0.4	4
53	Precise Forming of Complex Magnesium Alloy Components Based on Finite Element Method and Quantitative Preforming Design. <i>Journal of Materials Engineering and Performance</i> , 2020, 29, 5139-5146.	2.5	4
54	A Fuzzy PID Thermal Control System for Die Casting Processes. , 2007, , .		3

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55	MICROSTRUCTURE AND TENSILE PROPERTIES OF SQUEEZE CAST Mg-Al-Ca ALLOYS. International Journal of Modern Physics B, 2009, 23, 771-776.	2.0	3
56	Section thickness-dependant interfacial heat transfer in squeeze casting of aluminum alloy A443. IOP Conference Series: Materials Science and Engineering, 2012, 27, 012073.	0.6	3
57	Determination and Relaxation of Residual Stress in 2024 Al-30Vol.% Magnesium Borate Whisker Composites. Journal of Materials Engineering and Performance, 2013, 22, 3126-3133.	2.5	3
58	Fusion Welding of Vacuum High Pressure Die Cast Aluminum Alloy A356 and Wrought Alloy 6061. SAE International Journal of Materials and Manufacturing, 0, 6, 299-303.	0.3	3
59	Thermal Conductivities of Nanostructured Magnesium Oxide Coatings Deposited on Magnesium Alloys by Plasma Electrolytic Oxidation. Journal of Nanoscience and Nanotechnology, 2014, 14, 7933-7937.	0.9	3
60	High-Cycle Fatigue of High-Strength Low Alloy Steel Q345 Subjected to Immersion Corrosion for Mining Wheel Applications. Journal of Materials Engineering and Performance, 2017, 26, 1758-1768.	2.5	3
61	Solidification and Microstructure of Ni-Containing Al-Si-Cu Alloy. IOP Conference Series: Materials Science and Engineering, 2018, 301, 012002.	0.6	3
62	Pouring temperature-dependent tensile properties of squeeze cast magnesium alloy AJ62. Advances in Materials and Processing Technologies, 2018, 4, 262-271.	1.4	3
63	Processing and Properties of As-Cast Magnesium AM60-Based Composite Containing Alumina Nano Particles and Micron Fibres. Minerals, Metals and Materials Series, 2017, , 573-578.	0.4	3
64	Microstructure, Tensile Properties and Fracture Behavior of HPDC Magnesium Alloy AZ91. International Journal of Materials Mechanics and Manufacturing, 2020, 8, 50-56.	0.2	3
65	Effect of Sr and Ni Addition on Microstructure, Tensile Behavior and Electrical Conductivity of Squeeze Cast Al-6Si-3Cu Al Alloy. Key Engineering Materials, 0, 921, 3-14.	0.4	3
66	A Kinetic Model for Dissolution of Second Phases in Die-Cast Mg Alloy AM50. Defect and Diffusion Forum, 2010, 297-301, 111-116.	0.4	2
67	Development and validation of a FE model of a mining vehicle tyre. International Journal of Vehicle Design, 2014, 65, 176.	0.3	2
68	Interfacial heat transfer in squeeze casting of magnesium alloy AM60 with variation of applied pressures and casting wall-thicknesses. Heat and Mass Transfer, 2016, 52, 2303-2315.	2.1	2
69	Performance of a real-time local thermal management system for casting dies with multiple cooling channels. International Journal of Manufacturing Research, 2007, 2, 74.	0.2	1
70	Casting Design through Multi-objective Optimization. , 2009, , .		1
71	A threaded-connection locking mechanism integrated into a multi-piece mining wheel for enhanced structural performance and safety. Journal of Terramechanics, 2013, 50, 245-264.	3.1	1
72	Recovery of Aluminum Alloy A380 from Machining Chips. Applied Mechanics and Materials, 2016, 835, 155-160.	0.2	1

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73	Effect of Ca Contents on Tensile Properties of Squeeze Cast Mg-Al-Ca Alloys. Materials Science Forum, 0, 859, 111-117.	0.3	1
74	Interfacial heat transfer of squeeze casting of wrought aluminum alloy 5083 with variation in wall thicknesses. Advances in Materials and Processing Technologies, 2017, 3, 407-417.	1.4	1
75	Squeeze Cast Mg-Zn Alloys for Bioapplications: Tensile Properties and Microstructure. Key Engineering Materials, 2020, 834, 169-176.	0.4	1
76	Corrosion and microstructure of as-cast magnesium alloy AM60-based hybrid nanocomposite. Advances in Materials and Processing Technologies, 2021, 7, 181-199.	1.4	1
77	Influence of applied pressures and casting section thicknesses on interfacial heat transfer in squeeze casting of magnesium alloy AZ91. Heat and Mass Transfer, 2021, 57, 1107-1120.	2.1	1
78	Corrosion Behavior of Squeeze Cast Mg Alloy AM60-Based Hybrid Nanocomposite. Minerals, Metals and Materials Series, 2020, , 259-265.	0.4	1
79	Impact and Energy Dissipation Characteristics of Squeeze and Die Cast Magnesium Alloy AM60. , 2012, , 165-168.		1
80	Effect of Fiber Reinforcement on Corrosion Resistance of Mg AM60 Alloy-based Composites in NaCl Solutions. , 2011, , 469-474.		1
81	Influence of Solute Content and Secondary Phases on the Nano-Creep Behavior of Mg-Al-Ca Alloys. Key Engineering Materials, 2007, 345-346, 605-608.	0.4	0
82	Robust control for axial-flow compressor - An algorithm. , 2008, , .		0
83	A Correlation Analysis of Cooling-Induced Temperature Changes. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2009, 131, .	2.2	0
84	Mathematical Modeling of Squeeze Casting of Magnesium Alloy AM50. Defect and Diffusion Forum, 0, 297-301, 105-110.	0.4	0
85	Grain Structure Development of $C_{20}$ $Cl_{60}$ -Refined Magnesium Alloy AM60. Applied Mechanics and Materials, 2014, 651-653, 42-45.	0.2	0
86	Characterization of Local Cavity Pressures in Squeeze Casting of Magnesium Alloy AM50. Advanced Materials Research, 0, 936, 1666-1670.	0.3	0
87	Effect of Grain Refiner $C_{20}$ $Cl_{60}$ on Tensile Properties of Squeeze Cast Mg Alloy AM60. Advanced Materials Research, 2015, 1120-1121, 983-988.	0.3	0
88	Tensile Properties of Squeeze Cast Mg-Al-Sr Alloy under Applied Pressures. Advanced Materials Research, 2015, 1088, 181-185.	0.3	0
89	Process optimization for high pressure die casting of marine propeller with a hypoeutectic Al-Si-Mg Alloy. Metallurgical Research and Technology, 2016, 113, 402.	0.7	0
90	Corrosion Behaviors of Permanent Mold Cast Mg Alloy AJ62 with Varying Grain Structures in Automotive-Related Environments. Applied Mechanics and Materials, 2017, 865, 9-14.	0.2	0

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91	Characterization of Squeeze Cast Mg Alloy AM50 Containing Ca Addition. Applied Mechanics and Materials, 2017, 872, 14-18.	0.2	0
92	Heat transfer during squeeze casting of aluminium alloy A380. Advances in Materials and Processing Technologies, 2020, , 1-12.	1.4	0
93	Determination of interfacial heat transfer coefficients for squeeze casting of magnesium alloy AZ91 with various section thicknesses. Advances in Materials and Processing Technologies, 2020, , 1-14.	1.4	0
94	Influence of Section Thickness on Microstructure and Mechanical Properties of Squeeze Cast Magnesium Alloy AM60. , 2012, , 561-564.		0
95	FE Modelling of Tensile and Impact Behaviours of Squeeze Cast Magnesium Alloy AM60. , 2013, , 35-39.		0