Rui Hu

List of Publications by Year
in descending order

96 papers	1,705 citations	331670 21 h-index	361022 35 g-index
96 all docs	96 docs citations	96 times ranked	1053 citing authors

#	Article	IF	Citations
1	Phase selection and solidification path transition of Tiâ€“48Alâ€“xNb alloys with different cooling rates. Rare Metals, 2023, 42, 288-295.	7.1	3
2	Investigations of interfacial reaction and toughening mechanisms of Ta fiber-reinforced TiAl-matrix composites. Materials Characterization, 2022, 183, 111584.	4.4	18
3	Metastable transformation behavior in a Ta-containing TiAl-Nb alloy during continuous cooling. Journal of Alloys and Compounds, 2022, 904, 164088.	5.5	11
4	Phase transformation pathway and microstructural refinement by feathery transformation of Ru-containing Î³-TiAl alloy. Journal of Materials Research and Technology, 2022, 18, 5290-5300.	5.8	6
5	High temperature micro-deformation behavior of continuous TiNb fiber reinforced TiAl matrix composite investigated by in-situ high-energy X-ray diffraction. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 846, 143255.	5.6	2
6	Preparation of Al2O3 coating on Nb fiber and the effect on interfacial microstructure of Nbf/TiAl composite. Materials Characterization, 2022, 190, 112061.	4.4	4
7	Portevin-Le Chatelier effect, twinning-detwinning and disordering in an aged Niâ€“Crâ€“Mo alloy during large plastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 803, 140506.	5.6	5
8	Mechanical properties and microstructure of in situ formed Ti2AlN/TiAl(WMS) composites. Rare Metals, 2021, 40, 190-194.	7.1	8
9	Active Eutectoid Decomposition of Î±â€‰â†’â€‰Î³â€‰+â€‰Ï„1 and the Morphological Evolution in a Ru-Containing TiAl Alloy. Acta Metallurgica Sinica (English Letters), 2021, 34, 1042-1050.	2.9	2
10	Microstructure refinement assisted by Î±-recrystallization in a peritectic TiAl alloy. Journal of Materials Research and Technology, 2021, 11, 1135-1141.	5.8	7
11	Performance assessment of TiNbf/TiAl composites with different fiber structural characteristics. Journal of Materials Research and Technology, 2021, 11, 2265-2276.	5.8	12
12	Plasma electrolytic deposition of Î±-Al2O3 on TiNb fibres and their mechanical properties. Ceramics International, 2021, 47, 32915-32926.	4.8	6
13	Erosion behaviors and the control of fiber structure in Al2O3,f/TiAl composites. Journal of Alloys and Compounds, 2021, 882, 160734.	5.5	14
14	High temperature micromechanical behavior of Ti2AlN particle reinforced TiAl based composites investigated by in-situ high-energy X-ray diffraction. Materials and Design, 2021, 212, 110225.	7.0	13
15	The phase transformation behavior between Î³ lamellae and massive Î³ in a Ta containing TiAl-based alloy. Journal of Alloys and Compounds, 2020, 821, 153290.	5.5	11
16	Continuous-Cooling-Transformation (CCT) Behaviors and Fine-Grained Nearly Lamellar (FGNL) Microstructure Formation in a Cast Ti-48Al-4Nb-2Cr Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 5285-5295.	2.2	16
17	Flexible wire-shaped symmetric supercapacitors with Znâ€“Co layered double hydroxide nanosheets grown on Ag-coated cotton wire. Journal of Materials Science, 2020, 55, 16683-16696.	3.7	12
18	Evolution and micromechanical properties of interface structures in TiNbf/TiAl composites prepared by powder metallurgy. Journal of Materials Science, 2020, 55, 12421-12433.	3.7	19

#	Article	IF	Citations
19	Grain refinement of 1 at.% Ta-containing cast TiAl-based alloy by cyclic air-cooling heat treatment. Materials Letters, 2020, 274, 127940.	2.6	17
20	Formation mechanism of Si-Y-C ceramic matrix by reactive melt infiltration using Si-Y alloy and properties of C/Si-Y-C composites. Ceramics International, 2020, 46, 18976-18984.	4.8	8
21	Evolution of Metastable Î±‹sub›2‹/sub› Phase in a Quenched Highâ€Nbâ€Containing TiAl Alloy at 800â€‰Â°C. Advanced Engineering Materials, 2020, 22, 1901539.	3.5	2
22	In-situ observation of microstructure evolution and phase transformation under continuous cooling in Ru-containing TiAl alloys. Materials Characterization, 2020, 163, 110296.	4.4	11
23	Effects of Ru content on phase transformation and compression property of cast TiAl alloys. China Foundry, 2020, 17, 393-401.	1.4	5
24	Sustainable synthesis of N/S-doped porous carbon sheets derived from waste newspaper for high-performance asymmetric supercapacitor. Materials Research Express, 2019, 6, 095605.	1.6	9
25	Refinement of massive Î³ phase with enhanced properties in a Ta containing Î³-TiAl-based alloys. Scripta Materialia, 2019, 172, 113-118.	5.2	42
26	Microstructural evolution and creep deformation behavior of novel Tiâ^'22Alâ^'25Nbâ^'1Moâ^'1Vâ^'1Zrâ^'0.2Si (at.%) orthorhombic alloy. Transactions of Nonferrous Metals Society of China, 2019, 29, 313-321.	4.2	18
27	A Newly Generated Nearly Lamellar Microstructure in Cast Ti-48Al-2Nb-2Cr Alloy for High-Temperature Strengthening. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 5839-5852.	2.2	23
28	Catalytic effect of EG and MoS ‹sub›2‹/sub› on hydrolysis hydrogen generation behavior of highâ€energy ballâ€milled Mgâ€10wt.%Ni alloys in NaCl solutionâ€”A powerful strategy for superior hydrogen generation performance. International Journal of Energy Research, 2019, 43, 8426.	4.5	12
29	Enhanced hydrogen generation behaviors and hydrolysis thermodynamics of as-cast Mgâ€“Niâ€“Ce magnesium-rich alloys in simulate seawater. International Journal of Hydrogen Energy, 2019, 44, 24086-24097.	7.1	40
30	Microstructure evolution and controlled hydrolytic hydrogen generation strategy of Mg-rich Mg-Ni-La ternary alloys. Energy, 2019, 188, 116081.	8.8	40
31	On the eutectoid decomposition of Î±â†'Î³+Ï„1 in a Ru-containing TiAl alloy. Journal of Alloys and Compounds, 2019, 790, 42-47.	5.5	8
32	Facile synthesis of mesoporous CuCo2O4 nanorods@MnO2 with core-shell structure grown on RGO for high-performance supercapacitor. Materials Letters, 2019, 249, 151-154.	2.6	20
33	Continuous cooling transformationÂ(CCT) behavior of a high Nb-containing TiAl alloy. Materialia, 2019, 5, 100169.	2.7	13
34	Microstructure evolution and mechanical properties of a Ti-45Al-8.5Nb-(W, B, Y) alloy obtained by controlled cooling from a single Î² region. Journal of Alloys and Compounds, 2018, 740, 1140-1148.	5.5	25
35	Nucleation behavior of Ï‰ phase in TiAl alloys at different elevated temperatures. Journal of Materials Science, 2018, 53, 5287-5295.	3.7	5
36	Generation of high-performance Ni-Cr-Mo-based superalloys via Î³ to DO22 superlattice ordered phase transformation upon addition of trace alloying elements. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 738, 38-43.	5.6	10

#	Article	IF	Citations
37	The effect of Ni3(Cr0.2W0.4Ti0.4) particles with DO22 structure on the deformation mode and mechanical properties of the aged Ni-Cr-W-Ti alloy. Scripta Materialia, 2018, 153, 44-48.	5.2	12
38	Competitive growth of Si and YSi2 phases in a eutectic Si-Y alloy prepared by the Bridgeman method. Ceramics International, 2018, 44, 13232-13239.	4.8	6
39	Modification based on internal refinement and external decoration: A powerful strategy for superior thermodynamics and hysteresis of Mg-Ni hydrogen energy storage alloys. Journal of Alloys and Compounds, 2018, 766, 112-122.	5.5	30
40	Mechanical properties of an aged Ni-Cr-Mo alloy and effect of long-range order phase on deformation behavior. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 731, 29-35.	5.6	8
41	Anomalous Tensile Strength and Fracture Behavior of Polycrystalline Iridium from Room Temperature to 1600â€‰Â°C. Advanced Engineering Materials, 2018, 20, 1701114.	3.5	3
42	High-temperature rotary-bending fatigue characteristics of a high Nb-containing beta-gamma TiAl alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 735, 40-48.	5.6	14
43	Oxidation behavior of a novel multi-element alloyed Ti2AlNb-based alloy in temperature range of 650â€“850ÂÂ°C. Rare Metals, 2018, 37, 838-845.	7.1	17
44	Formation of nano-sized M2C carbides in Si-free GH3535 alloy. Scientific Reports, 2018, 8, 8158.	3.3	10
45	Hot corrosion behavior and mechanical properties degradation of a Niâ€“Crâ€“W-based superalloy. Rare Metals, 2017, 36, 23-31.	7.1	6
46	The Effect of Pressure Stress on the Evolution of B2(Ï‰) Phase in High Nb Containing TiAl Alloy. Advanced Engineering Materials, 2017, 19, 1600844.	3.5	7
47	The effect of Ti on precipitation of fully coherent DO 22 superlattice in an Ni-Cr-W-based superalloy. Scripta Materialia, 2017, 134, 15-19.	5.2	18
48	Tailoring the Microstructure of a Î²-Solidifying TiAl Alloy by Controlled Post-solidification Isothermal Holding and Cooling. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 5095-5105.	2.2	32
49	Isothermal activation, thermodynamic and hysteresis of MgH2 hydrides catalytically modified by high-energy ball milling with MWCNTs and TiF3. International Journal of Hydrogen Energy, 2017, 42, 22953-22964.	7.1	28
50	Evolution of Î£3n CSL boundaries in Ni-Cr-Mo alloy during aging treatment. Materials Characterization, 2017, 134, 379-386.	4.4	9
51	Tensile properties and fracture behavior of in-situ synthesized Ti 2 AlN/Ti48Al2Cr2Nb composites at room and elevated temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 679, 7-13.	5.6	55
52	Effects of hot compression on carbide precipitation behavior of Niâ€”20Crâ€”18Wâ€”1Mo superalloy. Transactions of Nonferrous Metals Society of China, 2016, 26, 2883-2891.	4.2	5
53	Portevin-Le Chatelier effect in a Niâ€“Crâ€“Mo alloy containing ordered phase with Pt2Mo-type structure at room temperature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 650, 317-322.	5.6	11
54	Microstructure stability of Ti2AlN/Tiâ€“48Alâ€“2Crâ€“2Nb composite at 900 Â°C. Transactions of Nonferrous Metals Society of China, 2016, 26, 423-430.	4.2	14

#	Article	IF	Citations
55	Microstructure determined fracture behavior of a high Nb containing TiAl alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 666, 297-304.	5.6	28
56	Evolution behavior of superlattice phase with Pt₂Mo-type structure in Niâ€“Crâ€“Mo alloy with low atomic Mo/Cr ratio. Journal of Materials Research, 2016, 31, 427-434.	2.6	6
57	Effect of Nb Content on Solidification Characteristics and Microsegregation in Cast Tiâ€“48Alâ€“xNb Alloys. Acta Metallurgica Sinica (English Letters), 2016, 29, 714-721.	2.9	8
58	Microstructure evolution during the precipitation and growth of fully coherent DO22 superlattice in an Ni-Cr-W alloy. Materials Characterization, 2016, 118, 244-251.	4.4	10
59	Microstructural refinement of Ni-Cr-W superalloy by isothermal treatment near the liquidus. Materials Letters, 2016, 175, 271-274.	2.6	7
60	Precipitation of two kinds of Î³ laths in massive Î³ coexisting with Î³ lamellae in as-cast Ta-containing TiAl-Nb alloys. Materials Letters, 2016, 185, 480-483.	2.6	7
61	Correlation between mechanism of ordering transformation and microstructure of interfaces in Ni-Cr-W superalloys. Materials Letters, 2016, 181, 63-66.	2.6	3
62	Elements segregation and phase precipitation behavior at grain boundary in a Ni-Cr-W based superalloy. Materials Characterization, 2016, 122, 189-196.	4.4	30
63	Ordering Transformation and Age Hardening in a Ni-Cr-W Superalloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 5907-5917.	2.2	5
64	Grain boundary character correlated carbide precipitation and mechanical properties of Ni-20Cr-18W-1Mo superalloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 667, 391-401.	5.6	29
65	Transition of solidification path in nonequilibrium solidification of Tiâ€“48Alâ€“8Nb alloy. Rare Metals, 2016, 35, 48-53.	7.1	0
66	Dendritic Growth and Microstructure Evolution with Different Cooling Rates in Ti48Al2Cr2Nb Alloy. Journal of Materials Engineering and Performance, 2016, 25, 38-45.	2.5	16
67	New insights into serrated flow in Pt 2 Mo-type superlattice strengthened Niâ€“Crâ€“Mo alloy at room temperature. Materials Letters, 2016, 163, 94-97.	2.6	15
68	Hydrogenation thermodynamics of melt-spun magnesium rich Mgâ€“Ni nanocrystalline alloys with the addition of multiwalled carbon nanotubes and TiF3. Journal of Power Sources, 2016, 306, 437-447.	7.8	66
69	Precipitation of coherent Ni2(Cr, W) superlattice in an Niâ€“Crâ€“W superalloy. Materials Characterization, 2016, 111, 86-92.	4.4	5
70	Heredity of medium-range order structure from melts to the microstructure of Niâ€“Crâ€“W superalloy. Applied Physics A: Materials Science and Processing, 2015, 120, 183-188.	2.3	6
71	Microstructure and electrochemical hydrogenation/dehydrogenation performance of melt-spun La-doped Mg2Ni alloys. Materials Characterization, 2015, 106, 163-174.	4.4	29
72	Hot corrosion characteristics of Niâ€“20Crâ€“18W superalloy in molten salt. Transactions of Nonferrous Metals Society of China, 2015, 25, 3840-3846.	4.2	20

#	Article	IF	Citations
73	WidmannstÃtten laths in Ti48Al2Cr2Nb alloy by undercooled solidification. Materials Characterization, 2015, 107, 156-160.	4.4	16
74	A mixture of massive and feathery microstructures of Ti48Al2Cr2Nb alloy by high undercooled solidification. Materials Characterization, 2015, 100, 104-107.	4.4	22
75	Precipitation Behavior of Ïƒ-FeCr Phases in Hastelloy C-2000 Superalloy Under Plastic Deformation and Aging Treatment. Journal of Materials Engineering and Performance, 2015, 24, 565-571.	2.5	3
76	Oxidation behavior of Hastelloy C-2000 superalloy at 800 Â°C and 1000 Â°C. Transactions of Nonferrous Metals Society of China, 2015, 25, 354-362.	4.2	6
77	Effects of Î²-Dendrite Growth Velocity on Î²Â†'ÂÎ± Transformation of Hypoperitectic Tiâ€“46Alâ€“7Nb Alloy. Acta Metallurgica Sinica (English Letters), 2015, 28, 58-63.	2.9	0
78	Mechanical properties and pore structure deformation behaviour of biomedical porous titanium. Transactions of Nonferrous Metals Society of China, 2015, 25, 1543-1550.	4.2	35
79	Solidification characteristics of high Nb-containing Î³-TiAl-based alloys with different aluminum contents. Rare Metals, 2015, 34, 381-386.	7.1	17
80	Microstructural stability of long term aging treated Tiâ€“22Alâ€“26Nbâ€“1Zr orthorhombic titanium aluminide. Transactions of Nonferrous Metals Society of China, 2015, 25, 2549-2555.	4.2	12
81	Corrosion Behavior of Niâ€“20Crâ€“18Wâ€“1Mo Superalloy in Supercritical Water. Acta Metallurgica Sinica (English Letters), 2014, 27, 1046-1056.	2.9	4
82	Microstructure Characterization and Mechanical Properties of In Situ Synthesized Ti₂<scp>A</scp>l<scp>N</scp>/<scp>T</scp>i48<scp>A</scp>l2<scp>C</scp>r2<scp>N</scp>b Composites. Advanced Engineering Materials, 2014, 16, 507-510.	3.5	17
83	Hydrogen desorption performance of high-energy ball milled Mg 2 NiH 4 catalyzed by multi-walled carbon nanotubes coupling with TiF 3. International Journal of Hydrogen Energy, 2014, 39, 19672-19681.	7.1	51
84	Precipitation Behavior of Pt2Mo-Type Superlattices in Hastelloy C-2000 Superalloy with Low Mo/Cr Ratio. Journal of Materials Engineering and Performance, 2014, 23, 3314-3320.	2.5	7
85	Structure, composition and morphology of bioactive titanate layer on porous titanium surfaces. Applied Surface Science, 2014, 308, 1-9.	6.1	20
86	Precipitation of nanosized DO22 superlattice with high thermal stability in an Niâ€“Crâ€“W superalloy. Scripta Materialia, 2014, 76, 49-52.	5.2	18
87	Hydrogenation behavior of high-energy ball milled amorphous Mg2Ni catalyzed by multi-walled carbon nanotubes. International Journal of Hydrogen Energy, 2013, 38, 16168-16176.	7.1	21
88	Mechanical properties of porous titanium with different distributions of pore size. Transactions of Nonferrous Metals Society of China, 2013, 23, 2317-2322.	4.2	57
89	Synergetic catalytic effect of MWCNTs and TiF3 on hydrogenation properties of nanocrystalline Mg-10wt%Ni alloys. International Journal of Hydrogen Energy, 2013, 38, 12904-12911.	7.1	20
90	Precipitation behavior of grain boundary M23C6 and its effect on tensile properties of Niâ€“Crâ€“W based superalloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 548, 83-88.	5.6	119

#	Article	IF	Citations
91	Microstructure evolution in undercooled Co80Pd20 alloys. Journal of Materials Science, 2011, 46, 5495-5502.	3.7	5
92	Effect of thermal exposure on the stability of carbides in Niâ€“Crâ€“W based superalloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 2339-2344.	5.6	61
93	Stress induced deformation in the solidification of undercooled Co80Pd20 alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 973-977.	5.6	22
94	Effect of temperature on tensile behavior of Niâ€“Crâ€“W based superalloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 1974-1978.	5.6	79
95	Hot working characteristic of as-cast and homogenized Niâ€“Crâ€“W superalloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 508, 141-147.	5.6	36
96	Interface morphology evolvement and microstructure characteristics of hypoeutectic Cuâ€“1.0 wt%Cr alloy during unidirectional solidification. Science and Technology of Advanced Materials, 2005, 6, 950-955.	6.1	5