Huabei Peng

List of Publications by Year
in descending order

66 papers	1,153 citations	394286 19 h-index	454834 30 g-index
66 all docs	66 docs citations	66 times ranked	543 citing authors

#	ARTICLE	IF	CITATIONS
1	Recrystallization behavior and grain boundary character evolution in Co-Cr alloy from selective laser melting to heat treatment. Materials Characterization, 2022, 185, 111716.	1.9	12
2	Effect of Mo Alloying on the Precipitation Behavior of B2 Nano-Particles in Fe-Mn-Al-Ni Shape Memory Alloys. Metals, 2022, 12, 261.	1.0	2
3	Effect of grain boundary character on isothermal phase transformation and mechanical properties of Co-Cr-Mo alloy fabricated by selective laser melting. Journal of Alloys and Compounds, 2022, 903, 163904.	2.8	2
4	Homogeneously introducing more and thinner nanotwins by engineering annealing twin boundaries: A TWIP steel as an example. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 840, 142908.	2.6	9
5	Effects of Si on the Microstructure and Work Hardening Behavior of Feâ€'17Mnâ€'1.1Câ€'xSi High Manganese Steels. Metals and Materials International, 2021, 27, 3891-3904.	1.8	12
6	In vitro and 48 weeks in vivo performances of 3D printed porous Fe-30Mn biodegradable scaffolds. Acta Biomaterialia, 2021, 121, 724-740.	4.1	28
7	Degeneration and rejuvenation of shape memory effect associated with the precipitation of coherent nano-particles in a Co-Ni-Si shape memory alloy. Journal of Materials Science and Technology, 2021, 76, 150-155.	5.6	6
8	Reason for negative effect of Nb addition on oxidation resistance of alumina-forming austenitic stainless steel at 1323 K. Corrosion Science, 2021, 191, 109754.	3.0	15
9	Grain boundary character and stress corrosion cracking behavior of Co-Cr alloy fabricated by selective laser melting. Journal of Materials Science and Technology, 2021, 93, 244-253.	5.6	14
10	Dependence of shape memory effect on austenitic grain sizes in thermo-mechanical treated Fe-Mn-Si-Cr-Ni shape memory alloys. Materials Characterization, 2020, 169, 110650.	1.9	15
11	Effect of Thermomechanical Cycling on Martensitic Transformation and Shape Memory Effect in 304 Austenitic Steel. Metals, 2020, 10, 901.	1.0	1
12	Fatigue behavior of biomedical Coâ€"Crâ€"Moâ€"W alloy fabricated by selective laser melting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 795, 140000.	2.6	21
13	Further improvement of shape memory effect in a Co-6.8Al-6.3W alloy through aligned precipitates. Journal of Alloys and Compounds, 2020, 846, 156383.	2.8	1
14	Remarkable improvement of damping capacity in FeMn-based alloys by a long annealing. Materials Science and Technology, 2020, 36, 1329-1336.	0.8	9
15	Improvement of shape memory effect via strengthening austenite by virtue of thermally activated process in FCC-type metastable multicomponent alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 793, 139748.	2.6	2
16	Tuning Î´Ââ†'ÂÎ³ transformation types to relieve mechanical property degradation in a Co-free face-centered cubic metastable high-entropy alloy. Materialia, 2020, 11, 100738.	1.3	7
17	Engineering twins and stacking faults of Co-Al-W shape memory alloy by a combination of casting and solution-treatment. Scripta Materialia, 2019, 171, 73-77.	2.6	7
18	Effect of up-quenching time on damping capacity in a ductile Cu-16.59Al-10.55Mn shape memory alloy. Materials Research Express, 2019, 6, 095703.	0.8	1

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19	Influence of precipitation on phase transformation and mechanical properties of Ni-rich NiTiNb alloys. Materials Characterization, 2019, 154, 148-160.	1.9	20
20	Phenomenological Equations for Predicting Î³â€‰+â€‰Î´ Two-Phase Region of Fe-Mn-Si-Cr-Ni Shape Memory Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 3478-3485.	1.1	5
21	Role of Annealing in Improving Shape Memory Effect of As-Cast Fe-Mn-Si-Cr-Ni Shape Memory Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 3070-3079.	1.1	9
22	Effects of heat treatment on martensitic transformation and wear resistance of as-cast 60NiTi alloy. Materials Research Express, 2019, 6, 086573.	0.8	11
23	Significant improvement of shape memory effect in Co-Ni-based alloys through Si alloying. Journal of Alloys and Compounds, 2019, 791, 501-507.	2.8	13
24	Fabrication of Ferrite-Coated Magnetic Feâ€“Mnâ€“Siâ€“Crâ€“Ni Alloy Utilizing Selective Oxidation of Mn Element. IEEE Transactions on Magnetics, 2019, 55, 1-7.	1.2	3
25	A novel sandwich Fe-Mn damping alloy with ferrite shell prepared by vacuum annealing. Smart Materials and Structures, 2018, 27, 045005.	1.8	21
26	Effects of annealing on hardness and corrosion resistance of 60NiTi film deposited by magnetron sputtering. Journal of Alloys and Compounds, 2018, 746, 45-53.	2.8	17
27	Effect of second phase precipitation on martensitic transformation and hardness in highly Ni-rich NiTi alloys. Journal of Alloys and Compounds, 2018, 739, 873-881.	2.8	39
28	A Novel Constraint Method During Solution Treatment to Suppress Heating Rateâ€Dependent Martensitic Stabilization in Cuâ€“17.0Alâ€“10.5Mn Alloy. Advanced Engineering Materials, 2018, 20, 1701082.	1.6	3
29	Key criterion for achieving giant recovery strains in polycrystalline Fe-Mn-Si based shape memory alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 712, 37-49.	2.6	41
30	Key Factors Achieving Large Recovery Strains in Polycrystalline Feâ€“Mnâ€“Siâ€Based Shape Memory Alloys: A Review. Advanced Engineering Materials, 2018, 20, 1700741.	1.6	31
31	Suppressing heating rate-dependent martensitic stabilization in ductile Cu-Al-Mn shape memory alloys by Ni addition: An experimental and first-principles study. Materials Characterization, 2018, 145, 381-388.	1.9	9
32	Enhancement of strength-ductility combination in recovery-annealed Feâ€“Mnâ€“C twinning-induced plasticity steels by Si alloying. Materials Research Express, 2018, 5, 066556.	0.8	5
33	Shape recovery increase in a Co-Al-W alloy realized by stress-induced hcp martensitic transformation after strengthening matrix. Journal of Alloys and Compounds, 2017, 695, 1045-1051.	2.8	5
34	Reverse Shape Memory Effect Related to Î±Â†'Î³ Transformation in a Fe-Mn-Al-Ni Shape Memory Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 2132-2139.	1.1	7
35	Thermodynamic Explanation for the Large Difference in Improving Shape Memory Effect of Feâ€“Mn Alloys by Co and Si Addition. Advanced Engineering Materials, 2016, 18, 1426-1433.	1.6	5
36	Relationship between martensitic reversibility and different nano-phases in a FeMnAlNi shape memory alloy. Materials Characterization, 2016, 118, 22-28.	1.9	16

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37	Strong heating rate-dependent deterioration of shape memory effect in up/step quenched Cu-based alloys: A ductile Cu Al Mn alloy as an example. Acta Materialia, 2016, 111, 348-356.	3.8	24
38	Effect of carbon content on shape memory effect of Fe-Mn-Si-Cr-Ni-based alloys at different deformation temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 677, 133-139.	2.6	32
39	A Novel Training-Free Processed Fe-Mn-Si-Cr-Ni Shape Memory Alloy Undergoing Î´Ââ†'Âî³ Phase Transformation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 3277-3283.	1.1	11
40	Relationship among grain size, annealing twins and shape memory effect in Feâ€"Mnâ€"Si based shape memory alloys. Smart Materials and Structures, 2016, 25, 075013.	1.8	22
41	Effect of titanium addition on shape memory effect and recovery stress of training-free cast Feâ€"Mnâ€"Siâ€"Crâ€"Ni shape memory alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 657, 339-346.	2.6	27
42	Origin of shape memory effect in Coâ€"Ni alloys undergoing fccâ‡Œhcp martensitic transformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 639, 456-464.	2.6	23
43	Effect of stacking fault energy on work hardening behaviors in Feâ€"Mnâ€"Siâ€"C high manganese steels by varying silicon and carbon contents. Materials and Design, 2015, 85, 707-714.	3.3	59
44	Improvement of Oxidation Resistance of Remelted Zone in an Al2O3-Forming Austenitic Stainless Steel by Annealing. Oxidation of Metals, 2015, 83, 273-290.	1.0	3
45	Remarkable Improvement of Shape-Memory Effect in a Co-31Ni-3Si Alloy by Ausforming. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 1550-1555.	1.1	11
46	Remarkable Improvement of Shape Memory Effect in Austenitic Stainless Steel by Thermoâ€Mechanical Training. Advanced Engineering Materials, 2015, 17, 330-333.	1.6	5
47	Role of carbon in improving the shape memory effect of Feâ€"Mnâ€"Siâ€"Crâ€"Ni alloys by thermo-mechanical treatments. Smart Materials and Structures, 2015, 24, 055010.	1.8	9
48	Occurrence Sequence of Deformation-Induced Îµ-Martensite and Mechanical Twinning in an Fe-17Mn-3Si-0.6C High Manganese Steel. Steel Research International, 2015, 86, 1252-1259.	1.0	5
49	Relationship Between Damping Capacity and Variations of Vacancies Concentration and Segregation of Carbon Atom in an Fe-Mn Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 4828-4833.	1.1	20
50	Effect of Carbon Addition on Recovery Behavior of Trained Feï£¿Mnï£¿Si Based Shape Memory Alloys. Advanced Engineering Materials, 2015, 17, 205-210.	1.6	13
51	A novel high manganese austenitic steel with higher work hardening capacity and much lower impact deformation than Hadfield manganese steel. Materials & Design, 2014, 55, 798-804.	5.1	60
52	A New Set of Creq and Nieq Equations for Predicting Solidification Modes of Cast Austenitic Fe-Mn-Si-Cr-Ni Shape Memory Alloys. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2014, 45, 6-11.	1.0	13
53	Large recovery strain in Fe-Mn-Si-based shape memory steels obtained by engineering annealing twin boundaries. Nature Communications, 2014, 5, 4964.	5.8	115
54	Wear Resistance of Austenitic Steel Feâ€"17Mnâ€"6Siâ€"0.3C with High Silicon and High Manganese. Acta Metallurgica Sinica (English Letters), 2014, 27, 352-358.	1.5	16

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55	Remarkable improvement of shape memory effect in a Coâ€“31Niâ€“3Si alloy by training treatment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 618, 41-45.	2.6	13
56	Oxidation behavior of an austenitic stainless FeMnSiCrNi shape memory alloy. Corrosion Science, 2013, 66, 269-277.	3.0	28
57	Effects of Thermally Induced Cyclic <i>Î³</i>â€‰â†”â€‰<i>Îµ</i> Transformation on Shape Memory Effect of a Quenched FeMnSiCrNi Alloy. Advanced Engineering Materials, 2013, 15, 697-703.	1.6	7
58	Effect of Manganese on Microstructures and Solidification Modes of Cast Fe-Mn-Si-Cr-Ni Shape Memory Alloys. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2013, 44, 1137-1143.	1.0	16
59	Factors affecting recovery stress in Feâ€“Mnâ€“Siâ€“Crâ€“Niâ€“C shape memory alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 1125-1130.	2.6	34
60	A Novel Trainingâ€Free Cast Feï£¿Mnï£¿Siï£¿Crï£¿Ni Shape Memory Alloy Based on Formation of Martensite in a Domainâ€Specific Manner. Advanced Engineering Materials, 2011, 13, 48-56.	1.6	27
61	A Role of Î±â€² Martensite Introduced by Thermoâ€Mechanical Treatment in Improving Shape Memory Effect of an Feâ€Mnâ€Siâ€Crâ€Ni Alloy. Advanced Engineering Materials, 2011, 13, 388-394.	1.6	15
62	A novel training-free cast Feâ€“18Mnâ€“5.5Siâ€“9.5Crâ€“4Ni shape memory alloy with lathy delta ferrite. Scripta Materialia, 2010, 62, 55-58.	2.6	33
63	Influence of ageing after pre-deformation on shape memory effect in a FeMnSiCrNiC alloy with 13wt.% Cr content. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 504, 36-39.	2.6	17
64	Influence of initial microstructures on effectiveness of training in a FeMnSiCrNi shape memory alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 497, 61-64.	2.6	8
65	Principle and realization of improving shape memory effect in Feâ€“Mnâ€“Siâ€“Crâ€“Ni alloy through aligned precipitations of second-phase particles. Acta Materialia, 2007, 55, 6526-6534.	3.8	60
66	Designing damping capacity in high strength Feâ€“Mn based alloys by controlling crystal defect configurations. Philosophical Magazine, 0, , 1-17.	0.7	3