Yan Zhang

List of Publications by Year
in descending order

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65 papers	4,702 citations	361413 20 h-index	128289 60 g-index
65 all docs	65 docs citations	65 times ranked	3892 citing authors

#	Article	IF	Citations
1	Solidâ€Solution Phase Formation Rules for Multiâ€component Alloys. Advanced Engineering Materials, 2008, 10, 534-538.	3.5	2,146
2	Solid solution alloys of AlCoCrFeNiTix with excellent room-temperature mechanical properties. Applied Physics Letters, 2007, 90, 181904.	3.3	820
3	Amorphous Metallic NiFeP: A Conductive Bulk Material Achieving High Activity for Oxygen Evolution Reaction in Both Alkaline and Acidic Media. Advanced Materials, 2017, 29, 1606570.	21.0	441
4	Optimum glass formation at off-eutectic composition and its relation to skewed eutectic coupled zone in the La based Laâ€“Alâ€“(Cu,Ni) pseudo ternary system. Acta Materialia, 2003, 51, 4551-4561.	7.9	169
5	Competition driven nanocrystallization in high Bs and low coreloss Feâ€“Siâ€“Bâ€“Pâ€“Cu soft magnetic alloys. Scripta Materialia, 2015, 95, 3-6.	5.2	152
6	Synergistic alloying effect on microstructural evolution and mechanical properties of Cu precipitation-strengthened ferritic alloys. Acta Materialia, 2013, 61, 7726-7740.	7.9	85
7	Designing Highly Efficient and Longâ€Term Durable Electrocatalyst for Oxygen Evolution by Coupling B and P into Amorphous Porous NiFeâ€Based Material. Small, 2019, 15, e1901020.	10.0	71
8	Artificially produced rare-earth free cosmic magnet. Scientific Reports, 2015, 5, 16627.	3.3	67
9	Influence of microstructure on soft magnetic properties of low coreloss and high Bs Fe85Si2B8P4Cu1 nanocrystalline alloy. Journal of Applied Physics, 2014, 115, .	2.5	56
10	Formation and crystallization behavior of Fe-based amorphous precursors with pre-existing Î±-Fe nanoparticlesâ€”Structure and magnetic properties of high-Cu-content Fe-Si-B-Cu-Nb nanocrystalline alloys. Journal of Materials Science and Technology, 2021, 65, 171-181.	10.7	49
11	Porous amorphous NiFeOx/NiFeP framework with dual electrocatalytic functions for water electrolysis. Journal of Power Sources, 2019, 428, 76-81.	7.8	40
12	Structural origin of magnetic softening in a Fe-based amorphous alloy upon annealing. Journal of Materials Science and Technology, 2022, 96, 233-240.	10.7	32
13	MnFeNiCuPt and MnFeNiCuCo high-entropy alloys designed based on L1 0 structure in Pettifor map for binary compounds. Intermetallics, 2017, 82, 107-115.	3.9	30
14	A study of the glass forming ability in ZrNiAl alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 441, 106-111.	5.6	28
15	Production of Nanocrystalline (Fe, Co)-Si-B-P-Cu Alloy with Excellent Soft Magnetic Properties for Commercial Applications. Materials Transactions, 2015, 56, 372-376.	1.2	28
16	Enhanced dynamic mechanical properties and resistance to the formation of adiabatic shear band by Cu-rich nano-precipitates in high-strength steels. International Journal of Plasticity, 2021, 138, 102924.	8.8	25
17	Production and Properties of Soft Magnetic Cores Made From Fe-Rich FeSiBPCu Powders. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	24
18	Investigation on the crystallization mechanism difference between FINEMETÂ® and NANOMETÂ® type Fe-based soft magnetic amorphous alloys. Journal of Applied Physics, 2016, 120, 145102.	2.5	22

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19	Unique influence of heating rate on the magnetic softness of Fe81.5Si0.5B4.5P11Cu0.5C2 nanocrystalline alloy. Journal of Magnetism and Magnetic Materials, 2019, 471, 148-152.	2.3	22
20	Glass-forming ability of Prâ€“(Cu,Ni)â€“Al alloys in eutectic system. Journal of Materials Research, 2003, 18, 664-671.	2.6	21
21	Effect of Si addition on the corrosion properties of amorphous Fe-based soft magnetic alloys. Journal of Non-Crystalline Solids, 2014, 402, 36-43.	3.1	21
22	Mechanism of active dissolution of nanocrystalline FeSiBPCu soft magnetic alloys. Materials Characterization, 2016, 121, 9-16.	4.4	20
23	Effects of minor precipitation of large size crystals on magnetic properties of Fe-Co-Si-B-P-Cu alloy. Journal of Alloys and Compounds, 2017, 709, 663-667.	5.5	20
24	Precipitation kinetics and mechanical properties of nanostructured steels with Mo additions. Materials Research Letters, 2020, 8, 187-194.	8.7	20
25	Fe-Rich Feâ€“Siâ€“Bâ€“Pâ€“Cu Powder Cores for High-Frequency Power Electronic Applications. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	19
26	Fabrication and Properties of Under 10 <inline-formula> <tex-math notation="LaTeX">mu </tex-math> </inline-formula>m Sized Amorphous Powders of High <inline-formula> <tex-math notation="LaTeX">B_{s} </tex-math> </inline-formula> Soft Magnetic Alloy for High-Frequency Applications. IEEE Transactions on Magnetics, 2018, 54, 1-5.	2.1	18
27	The role of Cu content on structure and magnetic properties of Feâ€“Siâ€“Bâ€“Pâ€“Cu nanocrystalline alloys. Journal of Materials Science, 2019, 54, 4400-4408.	3.7	16
28	Sintered powder cores of high B s and low coreloss Fe84.3Si4B8P3Cu0.7 nano-crystalline alloy. AIP Advances, 2013, 3, .	1.3	14
29	Effect of substitution of Cu by Au and Ag on nanocrystallization behavior of Fe83.3Si4B8P4Cu0.7 soft magnetic alloy. Journal of Alloys and Compounds, 2016, 683, 263-270.	5.5	14
30	Optimization of the structure and soft magnetic properties of a Fe87B13 nanocrystalline alloy by additions of Cu and Nb. Journal of Magnetism and Magnetic Materials, 2020, 497, 166001.	2.3	13
31	Spark Plasma Sintering of Soft Magnetic Fe-Si-B-P-Cu Nanocrystalline Alloy in the Form of Magnetic Cores. Materials Transactions, 2011, 52, 2254-2257.	1.2	12
32	Effects of Cobalt Addition in Nanocrystalline <inline-formula> <tex-math notation="TeX">${m Fe}_{83.3}{m Si}_{4}{m B}_{8}{m P}_{4}{m Cu}_{0.7}$ </tex-math></inline-formula> Soft Magnetic Alloy. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	11
33	Observation of Cu nanometre scale clusters formed in Fe₈₅Si₂B₈P₄Cu₁nanocrystalline soft magnetic alloy by a spherical aberration-corrected TEM/STEM. Philosophical Magazine Letters, 2015, 95, 277-284.	1.2	11
34	Mechanically strong nanocrystalline Fe-Si-B-P-Cu soft magnetic powder cores utilizing magnetic metallic glass as a binder. AIP Advances, 2016, 6, .	1.3	11
35	Magnetic Properties of L1₀ FeNi Phase Developed Through Annealing of an Amorphous Alloy. IEEE Transactions on Magnetics, 2017, 53, 1-10.	2.1	11
36	First principle study on the Si effect in the Fe-based soft magnetic nano-crystalline alloys. Journal of Alloys and Compounds, 2018, 730, 196-200.	5.5	11

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37	Role of P in Nanocrystallization of <inline-formula> <tex-math notation="TeX">${m Fe}_{85}{m Si}_{2}{m B}_{8}{m P}_{4}{m Cu}_{1}$ </tex-math></inline-formula>. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	10
38	Crystallization induced ordering of hard magnetic L1 phase in melt-spun FeNi-based ribbons. AIP Advances, 2016, 6, .	1.3	10
39	First-principle simulation on the crystallization tendency and enhanced magnetization of Fe₇₆B₁₉P₅ amorphous alloy. Materials Research Express, 2015, 2, 016506.	1.6	8
40	Dynamic magnetic characteristics and relaxation of Fe73.5Cu1Nb3Si15.5B7 nanocrystalline alloy under operating temperature and magnetizing frequency. Journal of Magnetism and Magnetic Materials, 2017, 443, 261-266.	2.3	8
41	Effect of Co addition and annealing conditions on the magnetic properties of nanocrystalline FeCoSiBPCu ribbons. Journal of Magnetism and Magnetic Materials, 2019, 477, 156-161.	2.3	8
42	Precipitation strengthening of Cu/NiAl co-precipitates in a martensite-austenite dual-phase steel. Materials Characterization, 2021, 182, 111589.	4.4	8
43	Design of mesoporous Ni-Co hydroxides nanosheets stabilized by BO2- for pseudocapacitors with superior performance. Journal of Colloid and Interface Science, 2022, 614, 66-74.	9.4	8
44	Electrochemical Behavior of Annealed Soft-Magnetic Fe–Si–B–P–Cu Alloy. Materials Transactions, 2013, 54, 561-565.	1.2	7
45	Sintered magnetic cores of high Bs Fe84.3Si4B8P3Cu0.7 nano-crystalline alloy with a lamellar microstructure. Journal of Applied Physics, 2014, 115, 17A322.	2.5	7
46	Thermodynamic analysis of binary Fe85B15 to quinary Fe85Si2B8P4Cu1 alloys for primary crystallizations of Î±-Fe in nanocrystalline soft magnetic alloys. Journal of Applied Physics, 2015, 117, 17B737.	2.5	6
47	Nano-imprinting potential of magnetic FeCo-based metallic glass. Nanotechnology, 2019, 30, 305302.	2.6	6
48	The Effect of Co Addition on Glassy Forming Ability and Soft Magnetic Properties of Fe-Si-B-P Bulk Metallic Glass. Key Engineering Materials, 0, 508, 112-116.	0.4	5
49	Structural and magnetic properties on the Fe-B-P-Cu-W nano-crystalline alloy system. AIP Advances, 2018, 8, .	1.3	5
50	Confirmation of Hard Magnetic L1₀ FeNi Phase Precipitated in FeNiSiBPCu Alloy by Anomalous X-Ray Diffraction. IEEE Transactions on Magnetics, 2018, 54, 1-5.	2.1	5
51	Nanoimprinting of magnetic FeCo-based metallic glass thin films. Journal of Magnetism and Magnetic Materials, 2022, 542, 168455.	2.3	5
52	Structural and Magnetic Study of <inline-formula> <tex-math notation="TeX">${m Fe}_{76}{m Si}_{9}{m B}_{10}{m P}_{5}$ </tex-math></inline-formula> Metallic Glass by First Principle Simulation. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	3
53	X-Ray Absorption Studies of <inline-formula> <tex-math notation="TeX">${m Fe}_{85}{m Si}_{2}{m B}_{8}{m P}_{4}{m Cu}_{1}$ </tex-math></inline-formula> Alloy. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	3
54	Miniaturized planar antenna with NANOMET powder cores for the VHF band application. , 2015, , .		3

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55	Enhanced Redox properties of amorphous Fe 63.3-83.3 Co 0-20 Si 4 B 8 P 4 Cu 0.7 alloys via long-term CV cycling. Journal of Alloys and Compounds, 2018, 751, 349-358.	5.5	3
56	Formation of L1₀-FeNi hard magnetic material from FeNi-based amorphous alloys. Chinese Physics B, 2022, 31, 046301.	1.4	3
57	Taking advantage of glass: capturing and retaining the helium gas on the moon. Materials Futures, 2022, 1, 035101.	8.4	3
58	Stress-Enhanced Transformations from Hypothetical B2 to Stable L1₀ and Amorphous to fcc Phases in Fe₅₀Ni₅₀ Binary Alloy by Molecular Dynamic Simulations. Materials Transactions, 2017, 58, 646-654.	1.2	2
59	Ab initio molecular dynamics simulations of nano-crystallization of Fe-based amorphous alloys with early transition metals. Chinese Physics B, 2018, 27, 116401.	1.4	2
60	Effect of Si addition on the magnetic properties of FeNi-based alloys with L10 phase through annealing amorphous precursor. Journal of Alloys and Compounds, 2022, 920, 166029.	5.5	2
61	Magnetic Influence of Alloying Elements in Fe-Rich Amorphous Alloys Studied by <italic>Ab Initio</italic> Molecular Dynamics Simulations. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	1
62	Production of a magnetic material with the ability to change from very soft to semi-hard magnetic. Journal of Applied Physics, 2015, 117, 17E507.	2.5	1
63	Fabrication of Nanocrystalline Fe₈₄_.₃Si₄B₈P₃Cu_{0.}₇ Powders with High Magnetization. Key Engineering Materials, 2012, 508, 133-140.	0.4	0
64	Upper limit for the simultaneous existence of high B<inf>s</inf> and low H<inf>c</inf> in nanocrystalline FeCoSiBPCu alloys. , 2015, , .		0
65	L1₀-type Ordered Phase Formation in Fe-Ni-based Nanocrystalline Alloys. Materia Japan, 2016, 55, 596-596.	0.1	0