

Hong Yang

List of Publications by Year in descending order

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124
papers

4,176
citations

109321

35
h-index

138484

58
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124
all docs

124
docs citations

124
times ranked

4778
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrochemical reduction of nano-SiO ₂ in hard carbon as anode material for lithium ion batteries. <i>Electrochemistry Communications</i> , 2008, 10, 1876-1878.	4.7	300
2	Lithium storage in hollow spherical ZnFe ₂ O ₄ as anode materials for lithium ion batteries. <i>Electrochemistry Communications</i> , 2010, 12, 847-850.	4.7	216
3	Copper and zinc adsorption by softwood and hardwood biochars under elevated sulphate-induced salinity and acidic pH conditions. <i>Chemosphere</i> , 2016, 142, 64-71.	8.2	169
4	Effect of atmosphere on the mechanical milling of natural graphite. <i>Carbon</i> , 2000, 38, 2077-2085.	10.3	163
5	Effect of ageing treatment on the transformation behaviour of Ti-50.9at.% Ni alloy. <i>Acta Materialia</i> , 2008, 56, 736-745.	7.9	154
6	Effect of SiO ₂ /Al ₂ O ₃ ratio on the performance of nanocrystal ZSM-5 zeolite catalysts in methanol to gasoline conversion. <i>Applied Catalysis A: General</i> , 2016, 523, 312-320.	4.3	100
7	Hydrophobic precipitation of carbonaceous spheres from fructose by a hydrothermal process. <i>Carbon</i> , 2012, 50, 2155-2161.	10.3	95
8	Phase selective route to Ni(OH) ₂ with enhanced supercapacitance: Performance dependent hydrolysis of Ni(Ac) ₂ at hydrothermal conditions. <i>Electrochimica Acta</i> , 2012, 78, 1-10.	5.2	83
9	Functionally graded NiTi strips prepared by laser surface anneal. <i>Acta Materialia</i> , 2012, 60, 1658-1668.	7.9	80
10	Functionally graded shape memory alloys: Design, fabrication and experimental evaluation. <i>Materials and Design</i> , 2017, 124, 225-237.	7.0	77
11	Preparation and rheology of biochar, lignite char and coal slurry fuels. <i>Fuel</i> , 2011, 90, 1689-1695.	6.4	74
12	The concern of elasticity in stress-induced martensitic transformation in NiTi. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1999, 260, 240-245.	5.6	73
13	Changes in ¹⁵ N in a soil-plant system under different biochar feedstocks and application rates. <i>Biology and Fertility of Soils</i> , 2014, 50, 275-283.	4.3	70
14	Synchrotron high energy X-ray diffraction study of microstructure evolution of severely cold drawn NiTi wire during annealing. <i>Acta Materialia</i> , 2016, 115, 35-44.	7.9	63
15	Preparation of nanoporous tin oxide by electrochemical anodization in alkaline electrolytes. <i>Electrochimica Acta</i> , 2011, 56, 8797-8801.	5.2	59
16	High coercivity Ba hexaferrite prepared by mechanical alloying. <i>Journal of Alloys and Compounds</i> , 1995, 221, 70-73.	5.5	58
17	Lithium Intercalation into Mechanically Milled Natural Graphite: Electrochemical and Kinetic Characterization. <i>Journal of the Electrochemical Society</i> , 2002, 149, A1.	2.9	57
18	Supercapacitor and nanoscale research towards electrochemical energy storage. <i>International Journal of Smart and Nano Materials</i> , 2013, 4, 2-26.	4.2	57

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19	Effect of ageing treatment on the deformation behaviour of Ti-50.9 at.% Ni. Acta Materialia, 2009, 57, 4773-4781.	7.9	56
20	Microwave-Irradiation-Assisted Combustion toward Modified Graphite as Lithium Ion Battery Anode. ACS Applied Materials & Interfaces, 2018, 10, 909-914.	8.0	53
21	In situ synchrotron high-energy X-ray diffraction study of microscopic deformation behavior of a hard-soft dual phase composite containing phase transforming matrix. Acta Materialia, 2017, 130, 297-309.	7.9	49
22	Reaction forming of silicon carbide ceramic using phenolic resin derived porous carbon preform. Journal of the European Ceramic Society, 2009, 29, 2395-2402.	5.7	48
23	Mechanochemical Reduction of V ₂ O ₅ . Journal of Solid State Chemistry, 1994, 110, 136-141.	2.9	47
24	Stress-induced FCC to HCP martensitic transformation in CoNi. Journal of Alloys and Compounds, 2004, 368, 157-163.	5.5	47
25	Strain dependence of the Clausius-Clapeyron relation for thermoelastic martensitic transformations in NiTi. Smart Materials and Structures, 2007, 16, S22-S27.	3.5	46
26	MILD SOLUTION ROUTE TO MIXED-PHASE MnO ₂ WITH ENHANCED ELECTROCHEMICAL CAPACITANCE. Functional Materials Letters, 2011, 04, 57-60.	1.2	45
27	Combustion Reaction of Zinc Oxide with Magnesium during Mechanical Milling. Journal of Solid State Chemistry, 1993, 107, 258-263.	2.9	43
28	Metallurgical origin of the effect of Fe doping on the martensitic and magnetic transformation behaviours of Ni ₅₀ Mn _{40-x} Sn ₁₀ Fe _x magnetic shape memory alloys. Intermetallics, 2011, 19, 445-452.	3.9	42
29	Thermally induced fcc to hcp martensitic transformation in Co-Ni. Acta Materialia, 2005, 53, 3625-3634.	7.9	40
30	Metamagnetic phase transformation in Mn ₅₀ Ni ₃₇ In ₁₀ Co ₃ polycrystalline alloy. Applied Physics Letters, 2011, 98, .	3.3	40
31	A phenomenological model of the mechanisms of lignocellulosic biomass pyrolysis processes. Computers and Chemical Engineering, 2014, 60, 231-241.	3.8	40
32	Study on Synergistic Mechanism of Inhibitor Mixture Based on Electron Transfer Behavior. Scientific Reports, 2016, 6, 33252.	3.3	40
33	Surface oxidation of NiTi and its effects on thermal and mechanical properties. Intermetallics, 2018, 103, 52-62.	3.9	40
34	Effect of Co addition on martensitic phase transformation and magnetic properties of Mn ₅₀ Ni _{40-x} In ₁₀ Co _x polycrystalline alloys. Intermetallics, 2011, 19, 1839-1848.	3.9	39
35	Symmetrical Cell for Electrochemical AC Impedance Studies of Lithium Intercalation into Graphite. Electrochemical and Solid-State Letters, 2001, 4, A89.	2.2	38
36	Effect of annealing on deformation-induced martensite stabilisation of NiTi. Intermetallics, 2008, 16, 209-214.	3.9	37

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37	Characterization of hard- and softwood biochars pyrolyzed at high temperature. <i>Environmental Geochemistry and Health</i> , 2017, 39, 403-415.	3.4	37
38	Mechanochemical reduction of CuO by graphite. <i>Scripta Metallurgica Et Materialia</i> , 1995, 32, 681-684.	1.0	35
39	A unified thermodynamic theory for the formation of anodized metal oxide structures. <i>Electrochimica Acta</i> , 2012, 62, 424-432.	5.2	35
40	Structural evolution of topologically closed packed phase in a Ni-based single crystal superalloy. <i>Acta Materialia</i> , 2020, 185, 233-244.	7.9	35
41	In-situ synchrotron high energy X-ray diffraction study of micro-mechanical behaviour of R phase reorientation in nanocrystalline NiTi alloy. <i>Acta Materialia</i> , 2020, 194, 565-576.	7.9	34
42	Compositionally graded NiTi plate prepared by diffusion annealing. <i>Scripta Materialia</i> , 2012, 67, 305-308.	5.2	33
43	Biochar nutrient availability rather than its water holding capacity governs the growth of both C3 and C4 plants. <i>Journal of Soils and Sediments</i> , 2016, 16, 801-810.	3.0	33
44	A unique "fish-tail-like" four-way shape memory effect of compositionally graded NiTi. <i>Scripta Materialia</i> , 2017, 127, 84-87.	5.2	32
45	De-mixing of Nd ₂ Fe ₁₄ B during mechanical milling. <i>Applied Physics Letters</i> , 1992, 60, 833-834.	3.3	30
46	Phase separation and magnetic properties of Co-Ni-Al ferromagnetic shape memory alloys. <i>Intermetallics</i> , 2008, 16, 447-452.	3.9	30
47	Effect of laser scanning speed on the microstructure, phase transformation and mechanical property of NiTi alloys fabricated by LPBF. <i>Materials and Design</i> , 2022, 215, 110460.	7.0	30
48	Synthesis of titanium oxynitride by mechanical milling. <i>Journal of Materials Science</i> , 1993, 28, 5663-5667.	3.7	28
49	Transformation intervals and elastic strain energies of B2-B19' martensitic transformation of NiTi. <i>Intermetallics</i> , 2010, 18, 2431-2434.	3.9	28
50	Thermal analysis of the effect of aging on the transformation behaviour of Ti-50.9at.% Ni. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003, 360, 350-355.	5.6	27
51	A facile synthesis strategy for structural property control of mesoporous alumina and its effect on catalysis for biodiesel production. <i>Advanced Powder Technology</i> , 2014, 25, 1220-1226.	4.1	27
52	Controlled initiation and propagation of stress-induced martensitic transformation in functionally graded NiTi. <i>Journal of Alloys and Compounds</i> , 2021, 851, 156103.	5.5	27
53	Surface oxidation of NiTi during thermal exposure in flowing argon environment. <i>Materials and Design</i> , 2018, 140, 123-133.	7.0	25
54	Achieving 5.9% elastic strain in kilograms of metallic glasses: Nanoscopic strain engineering goes macro. <i>Materials Today</i> , 2020, 37, 18-26.	14.2	25

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55	Mechanically activated reduction of nickel oxide with graphite. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 1998, 29, 449-455.	2.1	24
56	Laser annealing of functionally graded NiTi thin plate. Scripta Materialia, 2011, 65, 1109-1112.	5.2	24
57	First identification of primary nanoparticles in the aggregation of HMF. Nanoscale Research Letters, 2012, 7, 38.	5.7	24
58	Phase formation, magnetic properties and Raman spectra of Co-Ti co-substitution M-type barium ferrites. Applied Physics A: Materials Science and Processing, 2015, 119, 525-532.	2.3	24
59	Conductivity in PEO-based Zn(II) polymer electrolytes. Solid State Ionics, 1990, 40-41, 663-665.	2.7	23
60	Poly(ethylene oxide)-Based Zn(II) Halide Electrolytes. Journal of the Electrochemical Society, 1992, 139, 1646-1654.	2.9	23
61	High pyrolysis temperature biochars reduce nitrogen availability and nitrous oxide emissions from an acid soil. GCB Bioenergy, 2018, 10, 930-945.	5.6	22
62	High performance Nb/TiNi nanocomposites produced by packaged accumulative roll bonding. Composites Part B: Engineering, 2020, 202, 108403.	12.0	22
63	Cyclic ageing of Ti-50.8at.% Ni alloy. Intermetallics, 2008, 16, 394-398.	3.9	21
64	Determining intrinsic stress and strain state of fibre-textured thin films by X-ray diffraction measurements using combined asymmetrical and Bragg-Brentano configurations. Materials and Design, 2019, 181, 108063.	7.0	21
65	A eutectic dual-phase design towards superior mechanical properties of heusler-type ferromagnetic shape memory alloys. Acta Materialia, 2019, 181, 278-290.	7.9	21
66	Current oscillations during potentiostatic anodization of tin in alkaline electrolytes. Electrochimica Acta, 2011, 56, 7051-7057.	5.2	20
67	On the L ^{1/2} bands formation and propagation in NiTi shape memory alloys. Journal of Materials Science and Technology, 2022, 116, 22-29.	10.7	20
68	Factors influencing the stress-induced fcc \rightarrow hcp martensitic transformation in Co-32Ni single crystal. Acta Materialia, 2006, 54, 4895-4904.	7.9	18
69	Martensitic transformation and magnetic properties in ferromagnetic shape memory alloy Ni ₄₃ Mn ₄₆ Sn ₁₁ xSix. Intermetallics, 2011, 19, 1605-1611.	3.9	18
70	Complex transformation field created by geometrical gradient design of NiTi shape memory alloy. Functional Materials Letters, 2017, 10, 1740011.	1.2	18
71	Effect of Cold Work and Partial Annealing on Thermomechanical Behaviour of Ti-50.5at%Ni. Shape Memory and Superelasticity, 2017, 3, 57-66.	2.2	18
72	Multistimulus-Responsive Graphene Oxide/Fe ₃ O ₄ /Starch Soft Actuators. ACS Applied Materials & Interfaces, 2022, 14, 16772-16779.	8.0	18

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73	Reduction of tantalum chloride by magnesium during reaction milling. <i>Journal of Materials Science Letters</i> , 1993, 12, 1088-1091.	0.5	17
74	Poly(ethylene oxide) electrolytes containing mixed salts. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1993, 31, 157-163.	2.1	17
75	3D-Printing Damage-Tolerant Architected Metallic Materials with Shape Recoverability via Special Deformation Design of Constituent Material. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 39915-39924.	8.0	17
76	Thermal and stress-induced martensitic transformations in quaternary Ni ₅₀ Mn ₃₇ (In, Sb) ₁₃ ferromagnetic shape memory alloys. <i>Intermetallics</i> , 2010, 18, 1690-1694.	3.9	16
77	Computational and experimental analyses of martensitic transformation propagation in shape memory alloys. <i>Journal of Alloys and Compounds</i> , 2019, 806, 1522-1528.	5.5	16
78	Anodization process of Sn in oxalic acid at low applied voltages. <i>Electrochimica Acta</i> , 2012, 59, 441-448.	5.2	15
79	Experiments on deformation behaviour of functionally graded NiTi structures. <i>Data in Brief</i> , 2017, 13, 562-568.	1.0	14
80	Role of hydrostatic pressure on the phase stability, the ground state, and the transformation pathways of NiTi alloy. <i>Scripta Materialia</i> , 2018, 151, 57-60.	5.2	14
81	Fe-Substituted Pt/HZSM-48 for Superior Selectivity of C_{12} in n -Dodecane Hydroisomerization. <i>Industrial & Engineering Chemistry Research</i> , 2022, 61, 1056-1065.	3.7	14
82	Microstructure, transformation behavior and mechanical properties of a (Ti ₅₀ Ni ₃₈ Cu ₁₂) ₉₃ Nb ₇ alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 627, 348-350.	5.6	13
83	Synthesis of inter-crystalline mesoporous ZSM-5 generated by self-interlocked MFI nanosheet stacks. <i>RSC Advances</i> , 2015, 5, 63765-63776.	3.6	13
84	Lattice Strain Matching Enabled Nanocomposite Design to Harness the Exceptional Mechanical Properties of Nanomaterials in Bulk Forms. <i>Advanced Materials</i> , 2020, 32, e1904387.	21.0	13
85	Nanocrystalline strain glass TiNiPt and its superelastic behavior. <i>Physical Review B</i> , 2021, 104, .	3.2	13
86	SEM observation of the "orange peel effect" of materials. <i>Materials Letters</i> , 2007, 61, 1433-1435.	2.6	12
87	Ti-50.8at.% Ni wire with variable mechanical properties created by spatial electrical resistance over-ageing. <i>Journal of Alloys and Compounds</i> , 2013, 577, S245-S250.	5.5	12
88	Synthesis of 2D MFI zeolites in the form of self-interlocked nanosheet stacks with tuneable structural and chemical properties for catalysis. <i>Applied Materials Today</i> , 2018, 11, 22-33.	4.3	12
89	Dual Phase Synergy Enabled Large Elastic Strains of Nanoinclusions in a Dislocation Slip Matrix Composite. <i>Nano Letters</i> , 2018, 18, 2976-2983.	9.1	12
90	Investigation of failure mechanisms of nacre at macro and nano scales. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 112, 104018.	3.1	12

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91	Achieving ultra-large elastic strains in Nb thin films on NiTi phase-transforming substrate by the principle of lattice strain matching. <i>Materials and Design</i> , 2021, 197, 109257.	7.0	12
92	Preparation of bioinspired graphene oxide/PMMA nanocomposite with improved mechanical properties. <i>Composites Science and Technology</i> , 2021, 216, 109046.	7.8	12
93	The transformation behavior of M-type barium ferrites due to Co ²⁺ /Ti substitution. <i>Journal of Materials Science: Materials in Electronics</i> , 2015, 26, 4668-4674.	2.2	11
94	Structural and magnetic properties of M ²⁺ /Ti (M ²⁺ =Ni or Zn) co-substituted M-type barium ferrite by a novel sintering process. <i>Journal of Materials Science: Materials in Electronics</i> , 2015, 26, 1060-1065.	2.2	11
95	2D versus 3D MFI zeolite: The effect of Si/Al ratio on the accessibility of acid sites and catalytic performance. <i>Materials Today Chemistry</i> , 2018, 8, 1-12.	3.5	11
96	Transferring elastic strain in Mo/Nb/TiNi multilayer nanocomposites by the principle of lattice strain matching. <i>Composites Part B: Engineering</i> , 2021, 215, 108784.	12.0	11
97	Facile and low-cost preparation of Co and N co-doped hierarchical porous carbon as a functional separator for Li-S batteries. <i>Electrochimica Acta</i> , 2022, 401, 139380.	5.2	11
98	Enhanced electrochemical performance of La _{0.6} Sr _{0.4} Co _{0.2} Fe _{0.8} O _{3-δ} cathode via Ba-doping for intermediate-temperature solid oxide fuel cells. <i>Nano Research</i> , 2022, 15, 3264-3272.	10.4	11
99	Microstructure and magnetic properties of Ni-rich Ni ₅₄ Mn _{25.7} Ga _{20.3} ferromagnetic shape memory alloy thin film. <i>Journal of Magnetism and Magnetic Materials</i> , 2008, 320, 1078-1082.	2.3	10
100	Martensitic and magnetic transformation behaviours in Mn ₅₀ Ni _{42-x} Sn ₈ Co _x polycrystalline alloys. <i>Journal Physics D: Applied Physics</i> , 2011, 44, 385403.	2.8	10
101	Multifunctional, Bioinspired, and Moisture Responsive Graphene Oxide/Tapioca Starch Nanocomposites. <i>Advanced Materials Technologies</i> , 2022, 7, 2100447.	5.8	10
102	Step-wise R phase transformation rendering high-stability two-way shape memory effect of a NiTiFe-Nb nanowire composite. <i>Acta Materialia</i> , 2021, 219, 117258.	7.9	10
103	Growth Orientation Control of Co Nanowires Fabricated by Electrochemical Deposition Using Porous Alumina Templates. <i>Crystal Growth and Design</i> , 2018, 18, 479-487.	3.0	9
104	Highly stable TS-1 extrudates for 1-butene epoxidation through improving the heat conductivity. <i>Catalysis Science and Technology</i> , 2020, 10, 6152-6160.	4.1	9
105	Design of highly stable metal/ZSM-5 catalysts for the shape-selective alkylation of toluene with methanol to <i>para</i> -xylene. <i>Inorganic Chemistry Frontiers</i> , 2022, 9, 3348-3358.	6.0	9
106	Effect of Ferroelastic Cycling via Martensite Reorientation on the Transformation Behaviour of Nickel-Titanium. <i>Materials Transactions</i> , 2002, 43, 792-797.	1.2	8
107	In-situ high energy X-ray diffraction study of microscopic deformation behavior of martensite variant reorientation in NiTi wire. <i>Applied Materials Today</i> , 2021, 22, 100904.	4.3	8
108	Effects of the Pore Structure and Acid-Base Property of X Zeolites on Side-Chain Alkylation of Toluene with Methanol. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 14381-14396.	3.7	8

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109	Shear strain evolution during tension-induced L ¹ / ₄ ders-type deformation of polycrystalline NiTi plates. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 839, 142774.	5.6	8
110	Stress serration and arch-shaped L ¹ / ₄ ders stress plateau behaviour of Tiâ€“50.8 at% Ni wire prepared by selective electrical resistance over-aging. <i>Smart Materials and Structures</i> , 2016, 25, 115035.	3.5	7
111	Facile preparation of nitrogen-doped hierarchical porous carbon as a sulfur cathode host for high performance lithium-sulfur batteries. <i>Microporous and Mesoporous Materials</i> , 2021, 312, 110749.	4.4	7
112	Improved Durability of High-Performance Intermediate-Temperature Solid Oxide Fuel Cells with a Ba-Doped La _{0.6} Sr _{0.4} Co _{0.2} Fe _{0.8} O _{3-δ} Cathode. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 33052-33063.	8.0	7
113	Formation mechanism of novel two-dimensional single crystalline dendritic copper plates in an aqueous environment. <i>Acta Materialia</i> , 2011, 59, 7177-7188.	7.9	6
114	NiTi-Enabled Composite Design for Exceptional Performances. <i>Shape Memory and Superelasticity</i> , 2017, 3, 67-81.	2.2	6
115	Kinetics simulation of propylene epoxidation over different Ti species in TS â€“1. <i>AIChE Journal</i> , 2021, 67, e17261.	3.6	5
116	Grain Size Effect of the β Phase Precipitation on Martensitic Transformation and Mechanical Properties of Niâ€“Mnâ€“Snâ€“Fe Heusler Alloys. <i>Materials</i> , 2021, 14, 2339.	2.9	5
117	Thermal arrest analysis of thermoelastic martensitic transformations in shape memory alloys. <i>Journal of Materials Research</i> , 2011, 26, 1243-1252.	2.6	4
118	Phase Formation in Tiâ€“Ni Binary System during Solid-State Synthesis. <i>Shape Memory and Superelasticity</i> , 2018, 4, 351-359.	2.2	4
119	Monoclinic angle, shear response, and minimum energy pathways of NiTiCu martensite phases from ab initio calculations. <i>Acta Materialia</i> , 2019, 178, 59-67.	7.9	4
120	Liquidâ€“Solid Reactions and Microstructure of SiC-5120 Steel Composite Brake Material. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012, 43, 658-664.	2.2	3
121	Experimental and numerical data for transformation propagation in NiTi shape memory structures. <i>Data in Brief</i> , 2019, 27, 104566.	1.0	3
122	Bulky macroporous titanium silicalite-1 free of extraframework titanium for phenol hydroxylation. <i>Microporous and Mesoporous Materials</i> , 2022, 336, 111884.	4.4	3
123	Ab initio prediction of phase stability of martensitic structures in binary NiTi under hydrostatic tension. <i>Physica Scripta</i> , 2020, 95, 035701.	2.5	2
124	Transformation temperatures and shape memory characteristics of a Tiâ€“45Niâ€“5Cu(at %) alloy annealed by Joule heating. <i>Physica Scripta</i> , 2010, T139, 014068.	2.5	1