

Yong Liu

List of Publications by Year in descending order

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102
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102
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102
times ranked

3725
citing authors

#	ARTICLE	IF	CITATIONS
1	3D printing of smart materials: A review on recent progresses in 4D printing. <i>Virtual and Physical Prototyping</i> , 2015, 10, 103-122.	10.4	660
2	Asymmetry of stress-strain curves under tension and compression for NiTi shape memory alloys. <i>Acta Materialia</i> , 1998, 46, 4325-4338.	7.9	317
3	Large Exchange Bias after Zero-Field Cooling from an Unmagnetized State. <i>Physical Review Letters</i> , 2011, 106, 077203.	7.8	279
4	Two-way shape memory effect developed by martensite deformation in NiTi. <i>Acta Materialia</i> , 1998, 47, 199-209.	7.9	217
5	Effect of annealing on the transformation behavior and superelasticity of NiTi shape memory alloy. <i>Scripta Materialia</i> , 2001, 45, 153-160.	5.2	190
6	Microstructure of NiTi shape memory alloy due to tension-compression cyclic deformation. <i>Acta Materialia</i> , 1998, 46, 1989-2000.	7.9	148
7	Effect of texture orientation on the martensite deformation of NiTi shape memory alloy sheet. <i>Acta Materialia</i> , 1999, 47, 645-660.	7.9	143
8	Some aspects of the properties of NiTi shape memory alloy. <i>Journal of Alloys and Compounds</i> , 1997, 247, 115-121.	5.5	139
9	Dependence of Transformation Temperatures of NiTi-based Shape-Memory Alloys on the Number and Concentration of Valence Electrons. <i>Advanced Functional Materials</i> , 2008, 18, 2789-2794.	14.9	131
10	Lüders-like deformation associated with martensite reorientation in NiTi. <i>Scripta Materialia</i> , 1998, 39, 1047-1055.	5.2	111
11	The ductility and shape-memory properties of Ni-Mn-Co-Ga high-temperature shape-memory alloys. <i>Acta Materialia</i> , 2009, 57, 3232-3241.	7.9	98
12	Cyclic deformation of NiTi shape memory alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1999, 273-275, 673-678.	5.6	93
13	Twinning and detwinning of β -type II twin in shape memory alloy. <i>Acta Materialia</i> , 2003, 51, 5529-5543.	5.4	88
14	A Review of Selective Laser Melted NiTi Shape Memory Alloy. <i>Materials</i> , 2018, 11, 519.	2.9	88
15	Some results on the detwinning process in NiTi shape memory alloys. <i>Scripta Materialia</i> , 1999, 41, 1273-1281.	5.2	87
16	On the deformation of the twinned domain in NiTi shape memory alloys. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 2000, 80, 1935-1953.	0.6	81
17	Hierarchically self-morphing structure through 4D printing. <i>Virtual and Physical Prototyping</i> , 2017, 12, 61-68.	10.4	70
18	Mechanical and thermomechanical properties of a Ti50Ni25Cu25 melt spun ribbon. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003, 354, 286-291.	5.6	65

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19	The superelastic anisotropy in a NiTi shape memory alloy thin sheet. <i>Acta Materialia</i> , 2015, 95, 411-427.	7.9	65
20	High strain rate deformation of martensitic NiTi shape memory alloy. <i>Scripta Materialia</i> , 1999, 41, 89-95.	5.2	63
21	Exchange bias and its training effect in the martensitic state of bulk polycrystalline Ni _{49.5} Mn _{34.5} In ₁₆ . <i>Journal of Applied Physics</i> , 2008, 104, .	2.5	62
22	Transformation temperature changes due to second phase precipitation in NiTi-based shape memory alloys. <i>Intermetallics</i> , 2009, 17, 914-919.	3.9	57
23	Multi-stage responsive 4D printed smart structure through varying geometric thickness of shape memory polymer. <i>Smart Materials and Structures</i> , 2017, 26, 125001.	3.5	53
24	Martensite stabilization and thermal cycling stability of two-phase NiMnGa-based high-temperature shape memory alloys. <i>Acta Materialia</i> , 2012, 60, 4255-4267.	7.9	52
25	The crystal chemistry of martensite in NiTiHf shape memory alloys. <i>Intermetallics</i> , 2008, 16, 876-883.	3.9	49
26	Review of mechanisms and deformation behaviors in 4D printing. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 105, 4633-4649.	3.0	48
27	Nano-hardness, wear resistance and pseudoelasticity of hafnium implanted NiTi shape memory alloy. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2012, 13, 174-184.	3.1	47
28	Deformation of shape memory alloys associated with twinned domain re-configurations. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1999, 273-275, 679-684.	5.6	46
29	<title>Detwinning process and its anisotropy in shape memory alloys</title>. , 2001, 4234, 82.		45
30	Large exchange bias obtainable through zero-field cooling from an unmagnetized state in Ni-Mn-Sn alloys. <i>Journal of Applied Physics</i> , 2012, 111, 043912.	2.5	45
31	Characterization of a nanocrystalline NiTiHf high temperature shape memory alloy thin film. <i>Scripta Materialia</i> , 2005, 52, 983-987.	5.2	43
32	Design and 4D Printing of Cross-Folded Origami Structures: A Preliminary Investigation. <i>Materials</i> , 2018, 11, 376.	2.9	40
33	Shape recovery of NiTi shape memory alloy under various pre-strain and constraint conditions. <i>Smart Materials and Structures</i> , 2005, 14, S273-S286.	3.5	39
34	Strong thermal-history-dependent magnetoresistance behavior in Ni _{49.5} Mn _{34.5} In ₁₆ . <i>Journal of Applied Physics</i> , 2009, 106, 063909.	2.5	39
35	On the mechanisms of two-way memory effect and stress-assisted two-way memory effect in NiTi shape memory alloy. <i>Journal of Alloys and Compounds</i> , 2008, 449, 125-128.	5.5	37
36	On the two-way shape memory behavior in NiTi alloy—An experimental analysis. <i>Acta Materialia</i> , 2008, 56, 3266-3277.	7.9	36

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37	Effect of stress-induced martensitic transformation on the crack tip stress-intensity factor in Ni-Mn-Ga shape memory alloy. <i>Acta Materialia</i> , 2007, 55, 5621-5629.	7.9	35
38	Effect of precipitation on the shape memory effect of Ti50Ni25Cu25 melt-spun ribbon. <i>Acta Materialia</i> , 2008, 56, 1721-1732.	7.9	34
39	Wear behaviour of martensitic NiTi shape memory alloy under ball-on-disk sliding tests. <i>Tribology International</i> , 2013, 66, 219-224.	5.9	34
40	Fabrication of SLM NiTi Shape Memory Alloy via Repetitive Laser Scanning. <i>Shape Memory and Superelasticity</i> , 2018, 4, 112-120.	2.2	34
41	Rate dependence of deformation mechanisms in a shape memory alloy. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 2002, 82, 2461-2473.	0.6	33
42	Effect of Heat Treatment on Repetitively Scanned SLM NiTi Shape Memory Alloy. <i>Materials</i> , 2019, 12, 77.	2.9	32
43	Microstructure and texture development in Ti50Ni25Cu25 melt-spun ribbon. <i>Acta Materialia</i> , 2007, 55, 361-369.	7.9	31
44	An investigation on the crystal structures of Ti50Ni50-xCux shape memory alloys based on density functional theory calculations. <i>Intermetallics</i> , 2014, 53, 20-25.	3.9	29
45	Substrate-induced stress and transformation characteristics of a deposited Ti-Ni-Cu thin film. <i>Philosophical Magazine</i> , 2004, 84, 1919-1936.	1.6	27
46	Thermomechanical training and the shape recovery characteristics of NiTi alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 481-482, 166-169.	5.6	27
47	Crystallization behavior of a Ti50Ni25Cu25 melt-spun ribbon. <i>Journal of Alloys and Compounds</i> , 2008, 449, 152-155.	5.5	27
48	HRTEM study of $\{111\}$ type II twin in NiTi shape memory alloy. <i>Philosophical Magazine</i> , 2004, 84, 3497-3507.	1.6	26
49	A second-order ferromagnetic transition in the martensitic state of Ni49.5Mn32.5Cu4Sn14: A critical behavior study. <i>Journal of Applied Physics</i> , 2009, 105, .	2.5	26
50	Effect of temperature on the wear behavior of NiTi shape memory alloy. <i>Journal of Materials Research</i> , 2015, 30, 186-196.	2.6	26
51	The mechanism clarification of Ni-Mn-Fe-Ga alloys with excellent and stable functional properties. <i>Journal of Alloys and Compounds</i> , 2013, 560, 84-91.	5.5	24
52	Wear Behavior of Austenitic NiTi Shape Memory Alloy. <i>Shape Memory and Superelasticity</i> , 2015, 1, 58-68.	2.2	24
53	Prediction of the detwinning anisotropy in textured NiTi shape memory alloy. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 2002, 82, 665-683.	0.6	23
54	Phase transformation in NiTiHf shape memory alloy thin films. <i>Thin Solid Films</i> , 2008, 516, 5393-5396.	1.8	23

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55	A jumping shape memory alloy under heat. <i>Scientific Reports</i> , 2016, 6, 21754.	3.3	23
56	Transformation characteristics of annealed Ti50Ni25Cu25 melt spun ribbon. <i>Journal of Alloys and Compounds</i> , 2006, 415, 182-187.	5.5	22
57	Fracture mechanism of a Ni-Mn-Ga ferromagnetic shape memory alloy single crystal. <i>Journal of Magnetism and Magnetic Materials</i> , 2005, 285, 410-416.	2.3	21
58	Thermally induced fracture of single crystal Ni-Mn-Ga ferromagnetic shape memory alloy. <i>Journal of Alloys and Compounds</i> , 2006, 415, 188-192.	5.5	21
59	Dynamic deformation of shape-memory alloys: Evidence of domino detwinning?. <i>Philosophical Magazine Letters</i> , 2002, 82, 511-517.	1.2	20
60	Properties of rapidly annealed Ti50Ni25Cu25 melt-spun ribbon. <i>Journal of Alloys and Compounds</i> , 2006, 416, 188-193.	5.5	20
61	A dynamic indentation method for characterizing soft incompressible viscoelastic materials. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004, 379, 334-340.	5.6	19
62	Factors affecting the generation of stress-assisted two-way memory effect in NiTi shape memory alloy. <i>Journal of Alloys and Compounds</i> , 2005, 400, 163-170.	5.5	19
63	Stabilization of retained austenite due to partial martensitic transformations. <i>Acta Metallurgica Et Materialia</i> , 1994, 42, 4117-4133.	1.8	18
64	The work production of shape memory alloy. <i>Smart Materials and Structures</i> , 2004, 13, 552-561.	3.5	18
65	Internal friction associated with dislocation relaxations in virgin martensite. I. Experiments. <i>Acta Metallurgica Et Materialia</i> , 1993, 41, 3277-3287.	1.8	17
66	Characterization of a rapidly annealed Ti50Ni25Cu25 melt-spun ribbon. <i>Journal of Alloys and Compounds</i> , 2008, 456, 170-177.	5.5	17
67	Effect of precipitation on two-way shape memory effect of melt-spun Ti50Ni25Cu25 ribbon. <i>Materials Chemistry and Physics</i> , 2010, 120, 221-224.	4.0	17
68	Enhanced magnetoresistance through magnetic-field-induced phase transition in Ni2MnGa co-doped with Co and Mn. <i>Journal of Magnetism and Magnetic Materials</i> , 2010, 322, 715-717.	2.3	16
69	Internal friction associated with dislocation relaxations in virgin martensite. II. Interpretation. <i>Acta Metallurgica Et Materialia</i> , 1994, 42, 621-630.	1.8	15
70	Exchange Bias and Inverse Magnetocaloric Effect in Co and Mn Co-Doped Ni2MnGa Shape Memory Alloy. <i>Metals</i> , 2013, 3, 69-76.	2.3	15
71	Some aspects of strain-induced change of magnetization in a Ni-Mn-Ga single crystal. <i>Scripta Materialia</i> , 2005, 53, 829-834.	5.2	14
72	Enhanced wear resistance of NiTi alloy by surface modification with Nb ion implantation. <i>Rare Metals</i> , 2014, 33, 244-248.	7.1	14

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73	Surface morphology of sputtered NiTi-based shape memory alloy thin films. <i>Surface and Coatings Technology</i> , 2005, 190, 400-405.	4.8	13
74	Texture and shape memory property of annealed Ti ₅₀ Ni ₂₅ Cu ₂₅ ribbons. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006, 425, 268-271.	5.6	11
75	Electrical transport and thermal properties of ferromagnetic shape memory alloy Ni _{49.4} Mn ₃₀ Ga _{20.6} . <i>Journal of Magnetism and Magnetic Materials</i> , 2006, 303, 261-265.	2.3	10
76	Evolution of local atomic structure in a melt-spun Ni ₂₅ Ti ₅₀ Cu ₂₅ shape memory alloy during crystallization. <i>Philosophical Magazine</i> , 2011, 91, 404-420.	1.6	10
77	Shape Memory Alloy as Actuator to Deflect a Wing Flap. , 2008, , .		9
78	Effect of surface oxidation on detwinning stress and transformation temperature of Ti-50Ni shape memory alloy. <i>Journal of Alloys and Compounds</i> , 2008, 448, 171-176.	5.5	9
79	TEM in situ study of the pre-strained NiTi shape memory alloy—driving force for shape recovery?. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003, 361, 185-190.	5.6	8
80	Thermomechanical stability of Ni-Mn-Ga single crystal. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006, 432, 178-183.	5.6	8
81	The Rational Nature of Type II Twin in NiTi Shape Memory Alloy. <i>Journal of Intelligent Material Systems and Structures</i> , 2006, 17, 1083-1090.	2.5	8
82	Rate dependence of deformation mechanisms in a shape memory alloy. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 2002, 82, 2461-2473.	0.6	8
83	Some factors affecting the properties of sputter deposited NiTi-based shape memory alloy thin films. , 2002, 4934, 210.		7
84	On the Detwinning Mechanism in Shape Memory Alloys. <i>Solid Mechanics and Its Applications</i> , 2002, , 37-44.	0.2	7
85	Influence of martensitic morphology on the behaviour of virgin martensite at low temperatures. <i>Scripta Metallurgica Et Materialia</i> , 1991, 25, 1345-1350.	1.0	6
86	Effects of martensite morphology on the aging behaviour of virgin martensite. <i>Acta Metallurgica Et Materialia</i> , 1993, 41, 1587-1593.	1.8	6
87	Effect of Cu Content on Atomic Positions of Ti ₅₀ Ni _{50-x} Cu _x Shape Memory Alloys Based on Density Functional Theory Calculations. <i>Metals</i> , 2015, 5, 2222-2235.	2.3	6
88	Zig-zag martensite formed at low temperatures. <i>Scripta Metallurgica Et Materialia</i> , 1992, 27, 887-892.	1.0	5
89	Substrate-induced stress and the transformation behavior of sputter-deposited NiTi thin films. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2003, 352, 314-317.	5.6	4
90	Stress-induced change of magnetization in a Ni-Mn-Ga single crystal under magnetomechanical training. <i>Applied Physics Letters</i> , 2006, 88, 232504.	3.3	4

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91	Effect of Deformation Mode on the Wear Behavior of NiTi Shape Memory Alloys. Shape Memory and Superelasticity, 2016, 2, 204-217.	2.2	4
92	Internal friction of Fe-N martensite at low temperature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 231, 183-188.	5.6	3
93	Effect of SiO ₂ buffer layer on properties of sputter-deposited NiTi shape memory alloy thin films. Surface and Coatings Technology, 2003, 167, 148-153.	4.8	2
94	Some factors affecting the shape recovery properties of NiTi SMA. , 2006, , .		2
95	Effect of Grain Boundary on the Wear Behaviour of NiTi Shape Memory Alloys When $M_f \hat{=} \hat{=} A_f$. Tribology Letters, 2018, 66, 1.	2.6	2
96	<title>Anisotropy of detwinning process in textured NiTi shape memory alloy</title>. , 2000, , .		1
97	Strengthening of virgin martensite through cryogenic deformation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2002, 33, 3576-3578.	2.2	1
98	Twinning and Detwinning of ϵ Type II Twins in NiTi Shape Memory Alloy. Materials Science Forum, 2003, 426-432, 2291-2296.	0.3	1
99	Shape Memory and Related Technologies. Smart Materials and Structures, 2005, 14, .	3.5	1
100	Properties of Ti ₅₀ Ni ₂₅ Cu ₂₅ Melt-Spun Ribbon. , 2006, , .		1
101	Two-Way Memory Effect in NiTi Shape Memory Alloys. Advances in Science and Technology, 0, , .	0.2	1