

# Daqiang Jiang

## List of Publications by Year in Descending Order

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**Version:** 2024-04-27

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

65  
papers

791  
citations

14  
h-index

24  
g-index

67  
ext. papers

1,006  
ext. citations

6.8  
avg, IF

3.79  
L-index

#	Paper	IF	Citations
65	Large-strain Lüders-type deformation of B19Tmartensite in Ni <sub>47</sub> Ti <sub>49</sub> Nb <sub>2</sub> Fe <sub>2</sub> alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2022</b> , 829, 142136	5.3	0
64	Small-scale confined R-phase transformation in Ni <sub>47</sub> Ti <sub>49</sub> Fe <sub>2</sub> -Nb <sub>2</sub> alloy. <i>Materialia</i> , <b>2021</b> , 20, 101262	3.2	1
63	Transferring elastic strain in Mo/Nb/TiNi multilayer nanocomposites by the principle of lattice strain matching. <i>Composites Part B: Engineering</i> , <b>2021</b> , 215, 108784	10	3
62	Large elastic strains and ductile necking of W nanowires embedded in TiNi matrix. <i>Journal of Materials Science and Technology</i> , <b>2021</b> , 60, 56-60	9.1	2
61	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> , <b>2021</b> , 197, 109257	8.1	6
60	Enhanced superelasticity of nanocrystalline NiTi/NiTiNbFe laminar composite. <i>Journal of Alloys and Compounds</i> , <b>2021</b> , 853, 157309	5.7	4
59	Grain-size gradient NiTi ribbons with multiple-step shape transition prepared by melt-spinning. <i>Journal of Materials Science and Technology</i> , <b>2021</b> , 71, 163-168	9.1	4
58	3D-Printing Damage-Tolerant Architected Metallic Materials with Shape Recoverability via Special Deformation Design of Constituent Material. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 39915-39924	8.5	3
57	Step-wise R phase transformation rendering high-stability two-way shape memory effect of a NiTiFe-Nb nanowire composite. <i>Acta Materialia</i> , <b>2021</b> , 219, 117258	8.4	2
56	Temperature-dependence of superelastic stress in nanocrystalline NiTi with complete transformation capability. <i>Intermetallics</i> , <b>2020</b> , 127, 106970	3.5	4
55	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> , <b>2020</b> , 194, 565-576	8.4	13
54	Ductile-Brittle Variation Phenomenon and a Special Transformation-Induced Plasticity Effect in NbTi-NiTi Composite. <i>Journal of Materials Engineering and Performance</i> , <b>2020</b> , 29, 296-302	1.6	
53	Achieving 5.9% elastic strain in kilograms of metallic glasses: Nanoscopic strain engineering goes macro. <i>Materials Today</i> , <b>2020</b> , 37, 18-26	21.8	12
52	"Lattice Strain Matching"-Enabled Nanocomposite Design to Harness the Exceptional Mechanical Properties of Nanomaterials in Bulk Forms. <i>Advanced Materials</i> , <b>2020</b> , 32, e1904387	24	5
51	Point defect engineering and machinability in n-type Mg <sub>3</sub> Sb <sub>2</sub> -based materials. <i>Materials Today Physics</i> , <b>2020</b> , 15, 100269	8	25
50	High performance Nb/TiNi nanocomposites produced by packaged accumulative roll bonding. <i>Composites Part B: Engineering</i> , <b>2020</b> , 202, 108403	10	8
49	Superior strength-ductility synergy by hetero-structuring high manganese steel. <i>Materials Research Letters</i> , <b>2020</b> , 8, 417-423	7.4	10

48	Determining intrinsic stress and strain state of fibre-textured thin films by X-ray diffraction measurements using combined asymmetrical and Bragg-Brentano configurations. <i>Materials and Design</i> , <b>2019</b> , 181, 108063	8.1	16
47	Achieving ultra-high bearing strength of tungsten nanoribbons in a transforming metal matrix. <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 781, 1-7	5.7	9
46	Dual Phase Synergy Enabled Large Elastic Strains of Nano-inclusions in a Dislocation Slip Matrix Composite. <i>Nano Letters</i> , <b>2018</b> , 18, 2976-2983	11.5	12
45	NiTi-Enabled Composite Design for Exceptional Performances. <i>Shape Memory and Superelasticity</i> , <b>2017</b> , 3, 67-81	2.8	4
44	In situ synchrotron high-energy X-ray diffraction study of microscopic deformation behavior of a hard-soft dual phase composite containing phase transforming matrix. <i>Acta Materialia</i> , <b>2017</b> , 130, 297-309	8.4	36
43	Fabrication, microstructure and mechanical properties of W/NiTi composites. <i>Journal of Alloys and Compounds</i> , <b>2017</b> , 695, 1976-1983	5.7	10
42	High strength W/TiNi micro-laminated composite with transformation-mediated ductility. <i>Materials and Design</i> , <b>2016</b> , 106, 415-419	8.1	15
41	Synchrotron high energy X-ray diffraction study of microstructure evolution of severely cold drawn NiTi wire during annealing. <i>Acta Materialia</i> , <b>2016</b> , 115, 35-44	8.4	47
40	Achieving Superior Two-Way Actuation by the Stress-Coupling of Nanoribbons and Nanocrystalline Shape Memory Alloy. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 16310-6	9.5	7
39	Fabrication of ultrafine manganese oxide-decorated carbon nanofibers for high-performance electrochemical capacitors. <i>Electrochimica Acta</i> , <b>2016</b> , 211, 524-532	6.7	12
38	Retaining Large and Adjustable Elastic Strains of Kilogram-Scale Nb Nanowires. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 2917-22	9.5	17
37	A nano lamella NbTi/NiTi composite with high strength. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2015</b> , 633, 121-124	5.3	9
36	In Situ High-Energy X-Ray Diffraction Study of Load Partitioning in Nb/NiTi Nanocomposite Plate. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2015</b> , 46, 3271-3275	2.3	2
35	Fabrication and Property of W/TiNi/Nb Shape Memory Alloy Laminated Composite. <i>Materials Science Forum</i> , <b>2015</b> , 815, 211-216	0.4	3
34	Deformation behavior of Nb nanowires in TiNiCu shape memory alloy matrix. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2015</b> , 646, 52-56	5.3	7
33	Achieving large linear elasticity and high strength in bulk nanocomposite via synergistic effect. <i>Scientific Reports</i> , <b>2015</b> , 5, 8892	4.9	13
32	Revealing ultralarge and localized elastic lattice strains in Nb nanowires embedded in NiTi matrix. <i>Scientific Reports</i> , <b>2015</b> , 5, 17530	4.9	14
31	A biopolymer-like metal enabled hybrid material with exceptional mechanical prowess. <i>Scientific Reports</i> , <b>2015</b> , 5, 8357	4.9	19

30	Microstructure, transformation behavior and mechanical properties of a (Ti <sub>50</sub> Ni <sub>38</sub> Cu <sub>12</sub> ) <sub>93</sub> Nb <sub>7</sub> alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2015</b> , 627, 348-350	5.3	9
29	New route toward building active ruthenium nanoparticles on ordered mesoporous carbons with extremely high stability. <i>Scientific Reports</i> , <b>2014</b> , 4, 4540	4.9	21
28	A New Class of Metal Nanocomposites with Superior Mechanical Properties: Unusual Thermal Expansion in NbTi-Nanowires/NiTi-Matrix Composite <b>2014</b> , 125-135		
27	Grain size effect on the R-phase transformation of nanocrystalline NiTi shape memory alloys. <i>Journal of Materials Science</i> , <b>2014</b> , 49, 4643-4647	4.3	26
26	Graphene sensing an inhomogeneous strain due to the surface relief in FeNiCoTi shape memory alloy. <i>Journal of Raman Spectroscopy</i> , <b>2014</b> , 45, 1-6	2.3	3
25	Influence of internal stress coupling on the deformation behavior of NiTi/Nb nanowire composites. <i>Scripta Materialia</i> , <b>2014</b> , 77, 75-78	5.6	17
24	In situ observation of structure and electrical property changes of a Ga-doped ZnO/graphene flexible transparent electrode during deformation. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 221907	3.4	2
23	Microstructure of stress-induced martensite in nanocrystalline NiTi shape memory alloy. <i>Rare Metals</i> , <b>2014</b> , 33, 379-382	5.5	4
22	Influence of Annealing and Pre-Straining on the Coupling Effect of a TiNi-Nb Nanowire Composite. <i>Materials Science Forum</i> , <b>2014</b> , 787, 307-312	0.4	1
21	Local strain matching between Nb nanowires and a phase transforming NiTi matrix in an in-situ composite. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2014</b> , 610, 6-9	5.3	11
20	Effect of deformation on the stability of stress-induced martensite in nanocrystalline NiTi shape memory alloy. <i>Materials Letters</i> , <b>2014</b> , 131, 233-235	3.3	6
19	High damping NiTi/Ti <sub>3</sub> Sn in situ composite with transformation-mediated plasticity. <i>Materials &amp; Design</i> , <b>2014</b> , 63, 460-463		13
18	A novel multifunctional NiTi/Ag hierarchical composite. <i>Scientific Reports</i> , <b>2014</b> , 4, 5267	4.9	15
17	Locality and rapidity of the ultra-large elastic deformation of Nb nanowires in a NiTi phase-transforming matrix. <i>Scientific Reports</i> , <b>2014</b> , 4, 6753	4.9	12
16	In situ synchrotron X-ray diffraction study of deformation behavior and load transfer in a Ti <sub>2</sub> Ni-NiTi composite. <i>Applied Physics Letters</i> , <b>2014</b> , 105, 041910	3.4	12
15	In situ synchrotron investigation of the deformation behavior of nanolamellar Ti <sub>5</sub> Si <sub>3</sub> /TiNi composite. <i>Scripta Materialia</i> , <b>2014</b> , 78-79, 53-56	5.6	19
14	A New Class of Metal Nanocomposites With Superior Mechanical Properties: Unusual Thermal Expansion in NbTi-Nanowires / NiTi-Matrix Composite <b>2014</b> , 127-135		
13	Constrained martensitic transformation in nanocrystalline TiNi/NbTi shape memory composites. <i>Journal of Alloys and Compounds</i> , <b>2013</b> , 577, S749-S751	5.7	4

12	In situ TEM observation of buffering the anode volume change by using NiTi alloy during electrochemical lithiation/delithiation. <i>Nanotechnology</i> , <b>2013</b> , 24, 325702	3-4	5
11	A transforming metal nanocomposite with large elastic strain, low modulus, and high strength. <i>Science</i> , <b>2013</b> , 339, 1191-4	33-3	190
10	In situ NiTi/Nb(Ti) composite. <i>Materials Research Bulletin</i> , <b>2013</b> , 48, 5049-5052	5-1	3
9	Transformation behavior of explosively welded TiNi/TiNi laminate after diffusion annealing and aging. <i>Materials Research Bulletin</i> , <b>2013</b> , 48, 5033-5035	5-1	6
8	A novel stretchable coaxial NiTi-sheath/Cu-core composite with high strength and high conductivity. <i>Advanced Materials</i> , <b>2013</b> , 25, 1199-202	24	14
7	Nanostructured Nb reinforced NiTi shape memory alloy composite with high strength and narrow hysteresis. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 231905	3-4	9
6	Narrow hysteresis behavior of TiNi shape memory alloy constrained by NbTi matrix during incomplete transformation. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2012</b> , 536, 33-36	5-3	5
5	Negative thermal expansion arrest point memory effect in TiNi shape memory alloy and NbTi/TiNi composite. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2012</b> , 549, 114-117	5-3	7
4	Superelastic memory effect in in-situ NbTi-nanowire-NiTi nanocomposite. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 173115	3-4	6
3	In situ X-ray diffraction study of deformation behavior in a Fe/NiTi composite. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 221904	3-4	4
2	Effects of Thermal Cycling on the Temperature Memory Effect of TiNiNb Alloy. <i>Journal of Materials Engineering and Performance</i> , <b>2010</b> , 19, 1022-1024	1-6	1
1	Constrained martensitic transformation in an in situ lamella TiNi/NbTi shape memory composite. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2009</b> , 515, 131-133	5-3	12