

# Shuyong Jiang

## List of Publications by Year in descending order

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69  
papers

1,060  
citations

394421

19  
h-index

501196

28  
g-index

69  
all docs

69  
docs citations

69  
times ranked

702  
citing authors

#	ARTICLE	IF	CITATIONS
1	Molecular dynamics simulation of mechanical behavior and phase transformation of nanocrystalline NiTi shape memory alloy with gradient structure. <i>Computational Materials Science</i> , 2022, 204, 111186.	3.0	7
2	Correlation of mechanical properties and electronic structures for NdFeB permanent magnet under hydrostatic pressure based on first-principle calculation. <i>Journal of Materials Research and Technology</i> , 2022, 18, 3410-3427.	5.8	5
3	Orientation dependence of mechanical behavior and phase transformation of NiTi shape memory alloy with multilayer structures by molecular dynamics simulation. <i>Journal of Materials Research and Technology</i> , 2022, 18, 943-961.	5.8	6
4	Molecular dynamics investigation on mechanical behaviour and phase transition of nanocrystalline NiTi shape memory alloy containing amorphous surface. <i>Applied Surface Science</i> , 2022, 587, 152871.	6.1	8
5	Inhomogeneous Plastic Deformation Mechanisms of NiTiFe Shape Memory Alloy Subjected to Local Canning Compression. <i>Journal of Materials Engineering and Performance</i> , 2021, 30, 1808-1815.	2.5	0
6	Investigation on Hot Workability of Ti-37 At Pct Nb Alloy Based on Processing Map and Microstructural Evolution. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2021, 52, 2830-2844.	2.2	3
7	Microstructures and Mechanical Properties of Equiatomic NiTi Shape Memory Alloy Undergoing Local Canning Compression and Subsequent Annealing. <i>Metals and Materials International</i> , 2021, 27, 4901-4910.	3.4	10
8	Comparison for Grain Growth Dynamics of Severely Deformed Austenite and Martensite NiTi Shape Memory Alloys after Complete Crystallization of Amorphous Phase. <i>Journal of Materials Engineering and Performance</i> , 2021, 30, 6191-6202.	2.5	3
9	Crystal plasticity finite element simulation of NiTi shape memory alloy under canning compression based on constitutive model containing dislocation density. <i>Mechanics of Materials</i> , 2021, 157, 103830.	3.2	14
10	Influence of annealing on incomplete detwinning and deformation twinning in equiatomic NiTi shape memory alloy undergoing severe plastic deformation. <i>Journal of Alloys and Compounds</i> , 2021, 871, 159550.	5.5	17
11	Mechanical properties and fracture mechanisms of martensitic NiTi shape memory alloy based on various thermomechanical-processing microstructures. <i>Journal of Alloys and Compounds</i> , 2021, 883, 160797.	5.5	11
12	Atomistic investigation on superelasticity of NiTi shape memory alloy with complex microstructures based on molecular dynamics simulation. <i>International Journal of Plasticity</i> , 2020, 125, 27-51.	8.8	55
13	Investigation on Texture Evolution Mechanism of NiTiFe Shape Memory Alloy Under Plane Strain Compression. <i>Metals and Materials International</i> , 2020, 27, 4047.	3.4	4
14	Subgrain Effect on Grain Scale Plasticity of NiTi Shape Memory Alloy Under Canning Compression: A Crystal Plasticity Finite Element Analysis. <i>Metals and Materials International</i> , 2019, 25, 333-342.	3.4	5
15	Investigation of the Dynamic Recrystallization of FeMnSiCrNi Shape Memory Alloy under Hot Compression Based on Cellular Automaton. <i>Metals</i> , 2019, 9, 469.	2.3	3
16	Atomistic Investigation on Diffusion Welding between Stainless Steel and Pure Ni Based on Molecular Dynamics Simulation. <i>Materials</i> , 2018, 11, 1957.	2.9	10
17	A Coupled Finite Element and Crystal Plasticity Study of Friction Effect on Texture Evolution in Uniaxial Compression of NiTi Shape Memory Alloy. <i>Materials</i> , 2018, 11, 2162.	2.9	2
18	Phase Transformation, Twinning, and Detwinning of NiTi Shape-Memory Alloy Subject to a Shock Wave Based on Molecular-Dynamics Simulation. <i>Materials</i> , 2018, 11, 2334.	2.9	29

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19	Influence of Heat Treatment on Microstructures and Mechanical Properties of NiCuCrMoTiAlNb Nickel-Based Alloy. <i>Metals</i> , 2018, 8, 217.	2.3	9
20	Influence of Degree of Deformation on Static Recrystallization Texture and Compressive Strength of NiTiFe Shape Memory Alloy Subjected to Canning Compression. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 6277-6289.	2.2	2
21	Microstructure evolution and deformation mechanism of NiTiFe shape memory alloy based on plane strain compression and subsequent annealing. <i>Materials Chemistry and Physics</i> , 2018, 215, 112-120.	4.0	13
22	Atomistic mechanisms for temperature-induced crystallization of amorphous copper based on molecular dynamics simulation. <i>Computational Materials Science</i> , 2018, 151, 25-33.	3.0	15
23	Effect of Plane Strain Compression and Subsequent Recrystallization Annealing on Microstructures and Phase Transformation of NiTiFe Shape Memory Alloy. <i>Journal of Materials Engineering and Performance</i> , 2018, 27, 4514-4524.	2.5	4
24	Investigation of interface compatibility during ball spinning of composite tube of copper and aluminum. <i>International Journal of Advanced Manufacturing Technology</i> , 2017, 88, 683-690.	3.0	14
25	Influence of heat treatment on complex-shape rotating disk subjected to isothermal precision forging. <i>Journal of Mechanical Science and Technology</i> , 2017, 31, 141-147.	1.5	2
26	Influence of partial static recrystallization on microstructures and mechanical properties of NiTiFe shape memory alloy subjected to severe plastic deformation. <i>Materials Research Bulletin</i> , 2017, 88, 226-233.	5.2	15
27	Mechanisms of crack propagation in nanoscale single crystal, bicrystal and tricrystal nickels based on molecular dynamics simulation. <i>Results in Physics</i> , 2017, 7, 1722-1733.	4.1	28
28	Influence of void density on dislocation mechanisms of void shrinkage in nickel single crystal based on molecular dynamics simulation. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2017, 90, 90-97.	2.7	32
29	Deformation Heterogeneity and Texture Evolution of NiTiFe Shape Memory Alloy Under Uniaxial Compression Based on Crystal Plasticity Finite Element Method. <i>Journal of Materials Engineering and Performance</i> , 2017, 26, 2671-2682.	2.5	5
30	Plastic deformation mechanisms of equiatomic Ni <sub>20</sub> Ti <sub>20</sub> Fe <sub>20</sub> Al <sub>20</sub> Cu <sub>20</sub> high-entropy alloy at high temperatures. <i>Journal of Materials Science</i> , 2017, 52, 3199-3207.	3.7	18
31	Influence of twist angle on crack propagation of nanoscale bicrystal nickel film based on molecular dynamics simulation. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2017, 87, 281-294.	2.7	10
32	Investigation on dislocation-based mechanisms of void growth and coalescence in single crystal and nanotwinned nickels by molecular dynamics simulation. <i>Philosophical Magazine</i> , 2017, 97, 2772-2794.	1.6	25
33	Crystal plasticity finite element simulation of NiTi shape memory alloy based on representative volume element. <i>Metals and Materials International</i> , 2017, 23, 1075-1086.	3.4	8
34	Influence of slip system combination models on crystal plasticity finite element simulation of NiTi shape memory alloy undergoing uniaxial compression. <i>Progress in Natural Science: Materials International</i> , 2017, 27, 598-605.	4.4	7
35	Microstructures and Mechanical Properties of NiTiFeAlCu High-Entropy Alloys with Exceptional Nano-precipitates. <i>Journal of Materials Engineering and Performance</i> , 2017, 26, 41-50.	2.5	9
36	Mechanisms of nanocrystallization and amorphization of NiTiNb shape memory alloy subjected to severe plastic deformation. <i>Procedia Engineering</i> , 2017, 207, 1493-1498.	1.2	11

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37	Investigation of primary static recrystallization in a NiTiFe shape memory alloy subjected to cold canning compression using the coupling crystal plasticity finite element method with cellular automaton. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2017, 25, 075008.	2.0	7
38	Multiscale Modeling of Polycrystalline NiTi Shape Memory Alloy under Various Plastic Deformation Conditions by Coupling Microstructure Evolution and Macroscopic Mechanical Response. <i>Materials</i> , 2017, 10, 1172.	2.9	3
39	Role of Severe Plastic Deformation in Suppressing Formation of R Phase and Ni <sub>4</sub> Ti <sub>3</sub> Precipitate of NiTi Shape Memory Alloy. <i>Metals</i> , 2017, 7, 145.	2.3	21
40	Investigation of Dynamic Recrystallization of NiTi Shape Memory Alloy Subjected to Local Canning Compression. <i>Metals</i> , 2017, 7, 208.	2.3	6
41	Investigation on Deformation Mechanisms of NiTi Shape Memory Alloy Tube under Radial Loading. <i>Metals</i> , 2017, 7, 268.	2.3	7
42	Deformation Behavior and Microstructure Evolution of NiTiCu Shape Memory Alloy Subjected to Plastic Deformation at High Temperatures. <i>Metals</i> , 2017, 7, 294.	2.3	7
43	Microstructure, Mechanical Property, and Phase Transformation of Quaternary NiTiFeNb and NiTiFeTa Shape Memory Alloys. <i>Metals</i> , 2017, 7, 309.	2.3	13
44	A Combined Experimental-Numerical Approach for Investigating Texture Evolution of NiTi Shape Memory Alloy under Uniaxial Compression. <i>Metals</i> , 2017, 7, 356.	2.3	9
45	Molecular Dynamics Simulation of Crack Propagation in Nanoscale Polycrystal Nickel Based on Different Strain Rates. <i>Metals</i> , 2017, 7, 432.	2.3	12
46	Processing Map of NiTiNb Shape Memory Alloy Subjected to Plastic Deformation at High Temperatures. <i>Metals</i> , 2017, 7, 328.	2.3	19
47	Plastic deformation mechanisms of NiCuCrMoTiAlNb Ni-based alloys at cryogenic temperature. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 664, 135-145.	5.6	9
48	Orientation dependence of void growth at triple junction of grain boundaries in nanoscale tricrystal nickel film subjected to uniaxial tensile loading. <i>Journal of Physics and Chemistry of Solids</i> , 2016, 98, 220-232.	4.0	12
49	Influence of Addition of Nb on Phase Transformation, Microstructure and Mechanical Properties of Equiatomic NiTi SMA. <i>Journal of Materials Engineering and Performance</i> , 2016, 25, 4341-4351.	2.5	13
50	Dislocation mechanism of void growth at twin boundary of nanotwinned nickel based on molecular dynamics simulation. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2016, 380, 2757-2761.	2.1	24
51	A molecular dynamics study of intercrystalline crack propagation in nano-nickel bicrystal films with (0 1 0) twist boundary. <i>Engineering Fracture Mechanics</i> , 2016, 168, 147-159.	4.3	21
52	Physical mechanisms of nanocrystallization of a novel Ni-based alloy under uniaxial compression at cryogenic temperature. <i>Materials Characterization</i> , 2016, 116, 18-23.	4.4	13
53	Transformation twinning and deformation twinning of NiTi shape memory alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 660, 1-10.	5.6	41
54	Multiple plastic deformation mechanisms of NiTi shape memory alloy based on local canning compression at various temperatures. <i>Intermetallics</i> , 2016, 70, 45-52.	3.9	48

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55	Isothermal precision forging of aluminum alloy ring seats with different preforms using FEM and experimental investigation. <i>International Journal of Advanced Manufacturing Technology</i> , 2014, 72, 1693-1703.	3.0	21
56	Microstructural evolution of plastic deformation of NiTi shape memory alloy at low temperature. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2013, 28, 1034-1037.	1.0	2
57	Influence of annealing on NiTi shape memory alloy subjected to severe plastic deformation. <i>Intermetallics</i> , 2013, 32, 344-351.	3.9	48
58	Multiscale investigation of inhomogeneous plastic deformation of NiTi shape memory alloy based on local canning compression. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 569, 117-123.	5.6	27
59	Nanocrystallization and amorphization of NiTi shape memory alloy under severe plastic deformation based on local canning compression. <i>Journal of Non-Crystalline Solids</i> , 2013, 367, 23-29.	3.1	48
60	Simulation of dynamic recrystallization of NiTi shape memory alloy during hot compression deformation based on cellular automaton. <i>Computational Materials Science</i> , 2013, 71, 124-134.	3.0	46
61	Isothermal precision forging of complex-shape rotating disk of aluminum alloy based on processing map and digitized technology. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 580, 294-304.	5.6	25
62	Deformation mechanism of NiTi shape memory alloy subjected to severe plastic deformation at low temperature. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 559, 607-614.	5.6	55
63	Deformation mechanism of hot spinning of NiTi shape memory alloy tube based on FEM. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2012, 27, 811-814.	1.0	1
64	Influence of Fire Times on the Microstructure and Mechanical Properties of Forgings with Complex Shape. <i>Advanced Science Letters</i> , 2011, 4, 1027-1031.	0.2	2
65	STUDY ON THE INFLUENCE LAWS OF MECHANICAL PROPERTIES ON STIFFNESS OF AUTOMOTIVE BODY PANELS. <i>International Journal of Modern Physics B</i> , 2009, 23, 1634-1639.	2.0	2
66	Role of ball size in backward ball spinning of thin-walled tubular part with longitudinal inner ribs. <i>Journal of Materials Processing Technology</i> , 2009, 209, 2167-2174.	6.3	30
67	Prediction of mechanical properties of 50CrVA tempered steel strip for horn diaphragm based on BPANN. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2009, 24, 791-795.	1.0	5
68	Application of BPANN for prediction of backward ball spinning of thin-walled tubular part with longitudinal inner ribs. <i>Journal of Materials Processing Technology</i> , 2008, 196, 190-196.	6.3	44
69	Atomic Simulation of Crystallographic Orientation Effect on Void Shrinkage and Collapse in Single-Crystal Copper under Shock Compression. <i>Journal of Materials Engineering and Performance</i> , 0, , 1.	2.5	0