Petr Sittner

List of Publications by Year
in descending order

179 papers	5,264 citations	101496 36 h-index	102432 66 g-index
184 all docs	184 docs citations	184 times ranked	2766 citing authors

#	Article	IF	Citations
1	Transmission electron microscopy investigation of dislocation slip during superelastic cycling of Niâ€“Ti wires. International Journal of Plasticity, 2011, 27, 282-297.	4.1	277
2	On the origin of LÃ¼ders-like deformation of NiTi shape memory alloys. Journal of the Mechanics and Physics of Solids, 2005, 53, 1719-1746.	2.3	199
3	Microstructure changes during non-conventional heat treatment of thin Niâ€“Ti wires by pulsed electric current studied by transmission electron microscopy. Acta Materialia, 2010, 58, 4503-4515.	3.8	191
4	In situ neutron diffraction investigation of deformation twinning and pseudoelastic-like behaviour of extruded AZ31 magnesium alloy. International Journal of Plasticity, 2009, 25, 1107-1127.	4.1	184
5	Magnetostatic interactions and forces between cylindrical permanent magnets. Journal of Magnetism and Magnetic Materials, 2009, 321, 3758-3763.	1.0	171
6	Instability of cyclic superelastic deformation of NiTi investigated by synchrotron X-ray diffraction. Acta Materialia, 2015, 94, 257-270.	3.8	161
7	Grain-resolved analysis of localized deformation in nickel-titanium wire under tensile load. Science, 2016, 353, 559-562.	6.0	154
8	Thermomechanical model for NiTi-based shape memory alloys including R-phase and material anisotropy under multi-axial loadings. International Journal of Plasticity, 2012, 39, 132-151.	4.1	153
9	R-phase transformation phenomena in thermomechanically loaded NiTi polycrystals. Mechanics of Materials, 2006, 38, 475-492.	1.7	152
10	Investigation of deformation mechanisms involved in the plasticity of AZ31 Mg alloy: In situ neutron diffraction and EPSC modelling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 496, 14-24.	2.6	147
11	Anisotropy of martensitic transformations in modeling of shape memory alloy polycrystals. International Journal of Plasticity, 2000, 16, 1243-1268.	4.1	130
12	On the coupling between martensitic transformation and plasticity in NiTi: Experiments and continuum based modelling. Progress in Materials Science, 2018, 98, 249-298.	16.0	125
13	Youngâ€™s Modulus of Austenite and Martensite Phases in Superelastic NiTi Wires. Journal of Materials Engineering and Performance, 2014, 23, 2303-2314.	1.2	119
14	Experimental study on the thermoelastic martensitic transformation in shape memory alloy polycrystal induced by combined external forces. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1995, 26, 2923-2935.	1.1	113
15	In situ neutron diffraction investigation of the collaborative deformationâ€“transformation mechanism in TRIP-assisted steels at room and elevated temperatures. Acta Materialia, 2008, 56, 3367-3379.	3.8	113
16	LÃ¼ders-like deformation associated with stress-induced martensitic transformation in NiTi. Scripta Materialia, 2004, 50, 193-198.	2.6	108
17	Elastic constants of bcc austenite and 2H orthorhombic martensite in CuAlNi shape memory alloy. Acta Materialia, 2005, 53, 3643-3661.	3.8	108
18	Electric resistance variation of NiTi shape memory alloy wires in thermomechanical tests: Experiments and simulation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 481-482, 127-133.	2.6	100

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19	Beyond the strain recoverability of martensitic transformation in NiTi. International Journal of Plasticity, 2019, 116, 232-264.	4.1	89
20	In situ neutron diffraction studies of martensitic transformations in NiTi polycrystals under tension and compression stress. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 378, 97-104.	2.6	86
21	Recoverability of large strains and deformation twinning in martensite during tensile deformation of NiTi shape memory alloy polycrystals. Acta Materialia, 2019, 180, 243-259.	3.8	82
22	In situ investigation of the fast microstructure evolution during electropulse treatment of cold drawn NiTi wires. Acta Materialia, 2011, 59, 1542-1556.	3.8	81
23	On the plastic deformation accompanying cyclic martensitic transformation in thermomechanically loaded NiTi. International Journal of Plasticity, 2018, 111, 53-71.	4.1	75
24	Recovery stress generation in shape memory Ti50Ni45Cu5 thin wires. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 286, 298-311.	2.6	70
25	Fatigue performance of superelastic NiTi near stress-induced martensitic transformation. International Journal of Fatigue, 2017, 95, 76-89.	2.8	58
26	Modal resonant ultrasound spectroscopy for ferroelastics. Applied Physics A: Materials Science and Processing, 2009, 96, 557-567.	1.1	55
27	Tensile Deformation of Superelastic NiTi Wires in Wide Temperature and Microstructure Ranges. Shape Memory and Superelasticity, 2019, 5, 42-62.	1.1	54
28	Temperature and microstructure dependence of localized tensile deformation of superelastic NiTi wires. Materials and Design, 2019, 174, 107797.	3.3	51
29	On the anisotropy of martensitic transformations in Cu-based alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 273-275, 280-285.	2.6	49
30	Thermomechanical behavior of shape memory alloy under complex loading conditions. International Journal of Plasticity, 1999, 15, 223-239.	4.1	46
31	Evolution of macroscopic elastic moduli of martensitic polycrystalline NiTi and NiTiCu shape memory alloys with pseudoplastic straining. Acta Materialia, 2017, 123, 146-156.	3.8	46
32	Effect of temperature on fatigue of superelastic NiTi wires. International Journal of Fatigue, 2020, 134, 105470.	2.8	43
33	Effects of carbon nanotube reinforcement and grain size refinement mechanical properties and wear behaviors of carbon nanotube/copper composites. Diamond and Related Materials, 2017, 74, 197-204.	1.8	42
34	Evolution of martensitic microstructures in nanocrystalline NiTi wires deformed in tension. Acta Materialia, 2021, 218, 117166.	3.8	42
35	Deformation twinning in martensite affecting functional behavior of NiTi shape memory alloys. Materialia, 2020, 9, 100506.	1.3	39
36	Martensitic transformations in [001] CuAlZnMn single crystals. Acta Materialia, 1998, 46, 1265-1281.	3.8	37

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37	Thermomechanical model for NiTi-based shape memory alloys covering macroscopic localization of martensitic transformation. International Journal of Solids and Structures, 2021, 221, 117-129.	1.3	36
38	Anisotropy of transformation characteristics of Cu-base shape memory alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 234-236, 414-417.	2.6	35
39	Martensitic transformation in NiMnGa single crystals: Numerical simulation and experiments. International Journal of Plasticity, 2006, 22, 1943-1961.	4.1	34
40	Stress-induced martensitic transformation in Cuâ€“Alâ€“Znâ€“Mn polycrystal investigated by two in-situ neutron diffraction techniques. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 324, 225-234.	2.6	33
41	Developing hybrid polymer composites with embedded shape-memory alloy wires. Jom, 2000, 52, 15-20.	0.9	31
42	Transformation behavior of prism shaped shape memory alloy single crystals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 438-440, 755-762.	2.6	31
43	3D flexible NiTi-braided elastomer composites for smart structure applications. Smart Materials and Structures, 2012, 21, 045016.	1.8	31
44	In situ experimental evidence on R-phase related deformation processes in activated NiTi wires. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 438-440, 579-584.	2.6	30
45	Factors Controlling Superelastic Damping Capacity of SMAs. Journal of Materials Engineering and Performance, 2009, 18, 603-611.	1.2	30
46	An algorithm for prediction of the hysteretic responses of shape memory alloys. Smart Materials and Structures, 2000, 9, 452-465.	1.8	29
47	Micromechanics modelling of NiTi polycrystalline aggregates transforming under tension and compression stress. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 378, 490-498.	2.6	28
48	Microstructure and precipitates in as-cast Co38Ni33Al29 shape memory alloy. Scripta Materialia, 2007, 57, 37-40.	2.6	28
49	Simulations of Mechanical Response of Superelastic NiTi Helical Spring and its Relation to Fatigue Resistance. Journal of Materials Engineering and Performance, 2014, 23, 2591-2598.	1.2	27
50	Observation and interpretation of grain boundary compatibility effects in Fe-3.3wt%Si bicrystals. Acta Metallurgica, 1989, 37, 1717-1726.	2.1	25
51	MICROSTRUCTURE AND FUNCTIONAL PROPERTY CHANGES IN THIN Niâ€“Ti WIRES HEAT TREATED BY ELECTRIC CURRENT â€" HIGH ENERGY X-RAY AND TEM INVESTIGATIONS. Functional Materials Letters, 2009, 02, 45-54.	0.7	25
52	Retained austenite stability investigation in TRIP steel using neutron diffraction. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 437, 114-119.	2.6	24
53	Exploiting NiTi shape memory alloy films in design of tunable high frequency microcantilever resonators. Applied Physics Letters, 2017, 111, .	1.5	24
54	Monitoring Tensile Fatigue of Superelastic NiTi Wire in Liquids by Electrochemical Potential. Shape Memory and Superelasticity, 2015, 1, 204-230.	1.1	22

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55	Fabrication of Thermal Plasma Sprayed NiTi Coatings Possessing Functional Properties. Coatings, 2021, 11, 610.	1.2	22
56	Structural characteristics and thermal stability of Alâ€“5.7Crâ€“2.5Feâ€“1.3Ti alloy produced by powder metallurgy. Journal of Alloys and Compounds, 2009, 475, 151-156.	2.8	21
57	Study of Interfacial Adhesion between Nickel-Titanium Shape Memory Alloy and a Polymer Matrix by Laser Surface Pattern. Applied Sciences (Switzerland), 2020, 10, 2172.	1.3	21
58	Net-Shape NiTi Shape Memory Alloy by Spark Plasma Sintering Method. Applied Sciences (Switzerland), 2021, 11, 1802.	1.3	21
59	Stress induced martensitic transformations in tension/torsion of CuAlNi single crystal tube. Scripta Materialia, 2003, 48, 1153-1159.	2.6	20
60	In situ TEM observation of stress-induced martensitic transformations and twinning processes in CuAlNi single crystals. Acta Materialia, 2010, 58, 5109-5119.	3.8	20
61	Modeling of mechanical response of NiTi shape memory alloy subjected to combined thermal and non-proportional mechanical loading: a case study on helical spring actuator. Journal of Intelligent Material Systems and Structures, 2016, 27, 1927-1938.	1.4	20
62	Nanocantilevers with Adjustable Static Deflection and Significantly Tunable Spectrum Resonant Frequencies for Applications in Nanomechanical Mass Sensors. Nanomaterials, 2018, 8, 116.	1.9	20
63	TEM analysis of deformation bands created by tensile deformation of superelastic NiTi wires. Materials Characterization, 2020, 167, 110470.	1.9	20
64	Acoustic characterization of the elastic properties of austenite phase and martensitic transformations in CuAlNi shape memory alloy. Journal of Alloys and Compounds, 2004, 378, 140-144.	2.8	19
65	Temperature dependence of elastic properties of cubic and orthorhombic phases in Cuâ€“Alâ€“Ni shape memory alloy near their stability limits. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 462, 320-324.	2.6	19
66	Modelling and Material Design of SMA Polymer Composites. Materials Transactions, 2002, 43, 984-993.	0.4	17
67	Ultrasonic characterization of Cuâ€“Alâ€“Ni single crystals lattice stability in the vicinity of the phase transition. Ultrasonics, 2004, 42, 519-526.	2.1	17
68	Stress-Strain-Temperature Behavior Due to B2-R-B19â€² Transformation in NiTi Polycrystals. Journal of Engineering Materials and Technology, Transactions of the ASME, 2006, 128, 268-278.	0.8	17
69	Effect of microstructure on fatigue of superelastic NiTi wires. International Journal of Fatigue, 2021, 152, 106400.	2.8	17
70	Deformation by moving interfaces from single crystal experiments to the modeling of industrial SMA. International Journal of Mechanical Sciences, 1998, 40, 159-172.	3.6	16
71	Thermomechanical model for NiTi shape memory wires. Smart Materials and Structures, 2010, 19, 094010.	1.8	16
72	Velcro-like fasteners based on NiTi micro-hook arrays. Smart Materials and Structures, 2011, 20, 085027.	1.8	16

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73	Fatigue of superelastic NiTi wires with different plateau strain. Procedia Structural Integrity, 2016, 2, 1489-1496.	0.3	16
74	Mass Spectrometry of Heavy Analytes and Large Biological Aggregates by Monitoring Changes in the Quality Factor of Nanomechanical Resonators in Air. ACS Sensors, 2020, 5, 2128-2135.	4.0	16
75	Lattice Defects Generated by Cyclic Thermomechanical Loading of Superelastic NiTi Wire. Shape Memory and Superelasticity, 2021, 7, 65-88.	1.1	16
76	In situ neutron diffraction studies of the R-phase transformation in the NiTi shape memory alloy. Applied Physics A: Materials Science and Processing, 2002, 74, s1121-s1123.	1.1	15
77	Microstructural study of equiatomic PtTi martensite and the discovery of a new long-period structure. Acta Materialia, 2007, 55, 4447-4454.	3.8	15
78	Stress-induced martensite variant reorientation in magnetic shape memory Niâ€“Mnâ€“Ga single crystal studied by neutron diffraction. Smart Materials and Structures, 2008, 17, 035014.	1.8	15
79	Calculation of mechanical behaviors of shape memory alloy under multi-axial loading conditions. International Journal of Mechanical Sciences, 1998, 40, 227-235.	3.6	14
80	Study of the effect of curing treatment in fabrication of SMA/polymer composites on deformational behavior of NiTiâ€“5at.%Cu SMA wires. Scripta Materialia, 2003, 48, 623-627.	2.6	14
81	B2â€‰â‡’â€‰B19â€²â€‰â‡’â€‰B2T Martensitic Transformation as a Mechanism of Plastic Deformation of NiTi. Shape Memory and Superelasticity, 2019, 5, 383-396.	1.1	14
82	Tribological Behavior of NiTi Alloy Produced by Spark Plasma Sintering Method. Coatings, 2021, 11, 1246.	1.2	14
83	Neutron Diffraction Studies of the Stress Effect on Texture Transformations in NiTi Shape Memory Alloys. Journal of Neutron Research, 2004, 12, 15-20.	0.4	13
84	The Structure Dependence of Deformation Behavior of Transformation-Induced Plasticityâ€“Assisted Steel Monitoring by In-Situ Neutron Diffraction. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2008, 39, 3097-3104.	1.1	13
85	The stabilization of transformation pathway in stress induced martensite. Scripta Metallurgica Et Materialia, 1995, 32, 2073-2079.	1.0	12
86	In situ neutron diffraction studies of martensitic transformations in NiTi. European Physical Journal Special Topics, 2003, 112, 709-711.	0.2	12
87	Experiment feedbacks in micromechanics modeling of thermomechanical behaviors of SMA polycrystals. Scripta Materialia, 2004, 51, 321-326.	2.6	12
88	The reorientation of the 2H martensite phase in Cuâ€“Alâ€“Mn shape memory single crystal alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 481-482, 526-531.	2.6	12
89	In situneutron diffraction study of magnetic field induced martensite reorientation in Niâ€“Mnâ€“Ga under constant stress. Journal of Physics Condensed Matter, 2008, 20, 104224.	0.7	12
90	Corrosion of NiTi Wires with Cracked Oxide Layer. Journal of Materials Engineering and Performance, 2014, 23, 2659-2668.	1.2	12

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91	Environmental fatigue of superelastic NiTi wire with two surface finishes. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 111, 104028.	1.5	12
92	Advances in martensitic transformations in Cu-based shape memory alloys achieved by in situ neutron and synchrotron X-ray diffraction methods. Comptes Rendus Physique, 2012, 13, 280-292.	0.3	11
93	Atomic Layer-Deposited Al2O3 Coatings on NiTi Alloy. Journal of Materials Engineering and Performance, 2014, 23, 2641-2649.	1.2	11
94	In-situ synchrotron X-ray diffraction texture analysis of tensile deformation of nanocrystalline NiTi wire in martensite state. Applied Materials Today, 2022, 26, 101378.	2.3	11
95	Shape memory effects under combined forces. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 234-236, 216-219.	2.6	10
96	A network micromechanics model of thermomechanical behaviors of SMA polycrystals. Scripta Materialia, 2004, 50, 199-206.	2.6	10
97	Deformation processes in functional materials studied by in situ neutron diffraction and ultrasonic techniques. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 462, 12-22.	2.6	10
98	Reconstruction of Grains in Polycrystalline Materials From Incomplete Data Using Laguerre Tessellations. Microscopy and Microanalysis, 2019, 25, 743-752.	0.2	10
99	Stress state effect on martensitic structures in shape memory alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 273-275, 370-374.	2.6	9
100	Microscopic and Mesoscopic Evaluations of Materials. Multi-axial Constitutive Equations of Polycrystalline Shape Memory Alloy(1st Report, Modelling and Formulation).. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 1999, 65, 491-497.	0.2	9
101	<title>Comparison between generation of recovery stresses in shape memory wires and composites: theory and reality</title>. , 2001, , .		9
102	On the evaluation of temperature dependence of elastic constants of martensitic phases in shape memory alloys from resonant ultrasound spectroscopy studies. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 481-482, 567-573.	2.6	9
103	Quasistatic and dynamic functional properties of thin superelastic NiTi wires. European Physical Journal: Special Topics, 2008, 158, 7-14.	1.2	9
104	Microstructure and precipitates in annealed Co38Ni33Al29 ferromagnetic shape memory alloy. Journal of Alloys and Compounds, 2013, 572, 5-10.	2.8	9
105	Physical Simulation of the Random Failure of Implanted Braided NiTi Stents. Journal of Materials Engineering and Performance, 2014, 23, 2650-2658.	1.2	9
106	SMA Constitutive Modeling Backed Up by 3D-XRD Experiments: Transformation Front in Stretched NiTi Wire. Shape Memory and Superelasticity, 2018, 4, 411-416.	1.1	9
107	A multiscale study of hot-extruded CoNiGa ferromagnetic shape-memory alloys. Materials and Design, 2020, 196, 109118.	3.3	9
108	Reconstruction of Heat Sources Induced in Superelastically Loaded Ni-Ti Wire By Localized Deformation Processes. Experimental Mechanics, 2021, 61, 349-366.	1.1	9

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109	In-situ neutron diffraction during shape-memory behavior in Fe-Mn-Si-Cr. Jom, 2000, 52, 32-34.	0.9	8
110	Twinning processes in Cuâ€“Alâ€“Ni martensite single crystals investigated by neutron single crystal diffraction method. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 481-482, 513-517.	2.6	8
111	Numerical analysis of NiTi actuators with stress risers: The role of bias load and actuation temperature. Engineering Fracture Mechanics, 2021, 244, 107551.	2.0	8
112	Persistent slip band â€" Grain boundary interactions in low strain fatigue of isoaxial Fe-14wt. %Cr bicrystals. Scripta Metallurgica Et Materialia, 1992, 27, 705-710.	1.0	7
113	In situ neutron diffraction study of stresses generated by shape memory alloys. Journal of Neutron Research, 2001, 9, 143-150.	0.4	7
114	Multi-Axial Constitutive Equations of Polycrystalline Shape Memory Alloy. JSME International Journal Series A-Solid Mechanics and Material Engineering, 2002, 45, 276-281.	0.4	7
115	In Situ Neutron Diffraction Analysis of Phase Transformation Kinetics in TRIP Steel. Materials Science Forum, 2005, 502, 339-344.	0.3	7
116	Neutron diffraction analysis of retained austenite stability in Mnâ€“Si steel during plastic deformation. Physica B: Condensed Matter, 2006, 385-386, 587-589.	1.3	7
117	Simulation of cubic to monoclinic-II transformations in a single crystal Cuâ€“Alâ€“Ni tube. International Journal of Plasticity, 2007, 23, 161-182.	4.1	7
118	Superelastic tensegrities: matrix formulation and antagonistic actuation. Smart Materials and Structures, 2018, 27, 105028.	1.8	7
119	R-Phase Phenomena in Neutron Diffraction Investigations of Thermomechanically Loaded NiTi Polycrystals. Materials Science Forum, 2002, 404-407, 835-840.	0.3	6
120	Load Partition in NiTi Shape Memory Alloy Polycrystals Investigated by In-Situ Neutron Diffraction and Micromechanics Modelling. Materials Science Forum, 2002, 404-407, 829-834.	0.3	6
121	On the R-phase transformation related phenomena in NiTi polycrystals subjected to thermomechanical loads. European Physical Journal Special Topics, 2004, 115, 269-278.	0.2	6
122	Shape Memory Hooks Employed in Fasteners. Journal of Materials Engineering and Performance, 2009, 18, 706-710.	1.2	6
123	Electrochemistry of NiTi Wires/Springs Subjected to Static/Cyclic Loadings. Materials Today: Proceedings, 2015, 2, S965-S969.	0.9	6
124	Atomic Layer-Deposited TiO2 Coatings on NiTi Surface. Journal of Materials Engineering and Performance, 2018, 27, 572-579.	1.2	6
125	On Transformation Pathways of General Stress Controlled Thermoelastic Martensitic Transformation in Shape Memory Alloys. European Physical Journal Special Topics, 1996, 06, C1-357-C1-366.	0.2	6
126	Functional textiles driven by transforming NiTi wires. MATEC Web of Conferences, 2015, 33, 03010.	0.1	6

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127	Stress induced martensitic transformation in CuAlZnMn polycrystals investigated by in situ neutron diffraction. European Physical Journal Special Topics, 2001, 11, Pr8-159-Pr8-166.	0.2	5
128	Stress-induced transformation and textures in pseudoelastic CuAlMnZn shape memory alloy deformed in tension. Applied Physics A: Materials Science and Processing, 2002, 74, s1095-s1097.	1.1	5
129	Experimental Research on Deformation of Ti-Ni SMA under Complex Loading Conditions. Key Engineering Materials, 2003, 233-236, 547-552.	0.4	5
130	Structure and mechanical properties of an AlCr6Fe2Ti1 alloy produced by rapid solidification powder metallurgy method. International Journal of Materials Research, 2010, 101, 307-309.	0.1	5
131	Transmission Electron Microscopy Study of Microstructural Evolution in Nanograined Ni-Ti Microwires Heat Treated by Electric Pulse. Solid State Phenomena, 0, 172-174, 682-687.	0.3	5
132	Evolution of Internal Stresses During Cyclic Superelastic Deformation of NiTi Investigated by X-ray Synchrotron Diffraction. Materials Today: Proceedings, 2015, 2, S731-S734.	0.9	5
133	NiTi-Polyimide Composites Prepared Using Thermal Imidization Process. Journal of Materials Engineering and Performance, 2016, 25, 1993-1999.	1.2	5
134	On the transformation path of reverse thermoelastic martensitic transformation. Scripta Metallurgica Et Materialia, 1995, 33, 433-439.	1.0	4
135	Stability of Î³1' Martensite in Cu-Base Alloys. European Physical Journal Special Topics, 1997, 07, C5-227-C5-232.	0.2	4
136	In situ neutron diffraction study of metals under external mechanical loading. Physica B: Condensed Matter, 2000, 276-278, 845-846.	1.3	4
137	In Situ High-Resolution Neutron Diffraction Study of Stress Induced Martensitic Transformations in CuAlZnMn Shape Memory Alloy. Materials Science Forum, 2000, 347-349, 334-339.	0.3	4
138	Martensitic Transformations in NiTi Polycrystals Investigated by In-Situ Neutron Diffraction. Materials Science Forum, 2003, 426-432, 2315-2320.	0.3	4
139	Thermomechanical Characterization of Shape Memory Alloy Tubular Composite Structures. Advances in Science and Technology, 0, , .	0.2	4
140	Thermomechanically transforming Notched NiTi Thin ribbon: Effect of Martensitic Transformation on Stress Gradients. Procedia Structural Integrity, 2019, 23, 620-625.	0.3	4
141	In Situ Neutron Diffraction Studies of Phase Transformations in Si - Mn TRIP Steel. Materials Science Forum, 0, , 275-280.	0.3	4
142	In Situ Neutron Diffraction Studies of the Pseudoelastic-Like Behaviour of Hydrostatically Extruded Mg-Al-Zn Alloy. Materials Science Forum, 2008, 571-572, 107-112.	0.3	3
143	Experimental and numerical investigation of thermomechanical cycling of notched NiTi shape memory ribbon using SMA model accounting for plastic deformation. Journal of Materials Research and Technology, 2021, 15, 1759-1776.	2.6	3
144	Structure development in Co38Ni33Al29ferromagnetic shape memory alloy. , 2009, , .		3

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145	Superplastic Deformation of Zn-2wt%Al Alloy under Cyclic Complex Loading Conditions. Materials Science Forum, 1996, 233-234, 29-36.	0.3	2
146	In situ high resolution neutron diffraction study of anisotropy and stress effects in transforming CuAlZnMn shape memory alloys. Journal of Neutron Research, 2001, 9, 79-86.	0.4	2
147	Intergranular strains in transforming NiTi alloys. IEEE Transactions on Nuclear Science, 2005, 52, 326-329.	1.2	2
148	Neutron diffraction study of the stress distribution in steel matrix around active NiTi inserts. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 3310-3316.	2.6	2
149	Phase Transformations and Fatigue of NiTi. MATEC Web of Conferences, 2015, 33, 03011.	0.1	2
150	Ni-Ti Self-Expanding Vascular Stent Configuration and Biomedical Interaction with Artery: Finite Element Analysis. Solid State Phenomena, 0, 258, 366-369.	0.3	2
151	Numerical Study on Localization of Phase Transformation in NiTi Shape Memory Wires. Solid State Phenomena, 0, 258, 141-144.	0.3	2
152	Finite element analysis on the effect of martensitic transformation and plastic deformation on the stress concentration factor in a thin notched superelastic NiTi ribbon. Functional Materials Letters, 2020, 13, 2051028.	0.7	2
153	Active frequency tuning of the cantilever nanoresonator utilizing a phase transformation of NiTi thin film. Journal of Vibroengineering, 2017, 19, 5161-5169.	0.5	2
154	Moving Interfaces in Shape Memory Alloy Bicrystals. Materials Science Forum, 1998, 294-296, 497-500.	0.3	1
155	CuAlNi Shape-Memory Alloys with Thermomechanical Behaviors Designed by Micromechanics Modelling. Materials Science Forum, 2002, 394-395, 387-390.	0.3	1
156	Elastic Properties of Structural Phases in Shape Memory Alloys Investigated by Resonant Ultrasound Spectroscopy. Materials Science Forum, 2005, 482, 351-354.	0.3	1
157	<i>In Situ </i>Experimental Methods for Characterization of Deformation Processes in SMAs. Advances in Science and Technology, 0, , .	0.2	1
158	Deformation Behaviour of TRIP Steel Monitoring by <i>in-Situ</i> Neutron Diffraction. Key Engineering Materials, 0, 465, 390-394.	0.4	1
159	Internal stresses in steel plate generated by shape memory alloy inserts. Acta Materialia, 2012, 60, 1378-1394.	3.8	1
160	Simulation of Mechanical Behavior of NiTi Shape Memory Alloys Under Complex Loading: Model Formulation and its Performance in Applications. , 2014, , .		1
161	Smart materials. Materials Science and Technology, 2014, 30, 1515-1516.	0.8	1
162	3D Reconstruction of Martensitic Microstructures in Grains of Deformed Nanocrystalline NiTi Wires by TEM. SSRN Electronic Journal, 0, , .	0.4	1

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163	Strength of Superelastic NiTi Velcro-Like Fasteners. Metals, 2021, 11, 909.	1.0	1
164	Transformation History Dependence of Shape Memory Effects. European Physical Journal Special Topics, 1997, 07, C5-573-C5-578.	0.2	1
165	Acoustic recognition of stress induced martensitic transformations in Cu-based shape memory alloys. European Physical Journal Special Topics, 2003, 112, 593-596.	0.2	1
166	Experimental Characteristic of Thermoelastic Martensitic Transformation under General Loading Conditions.. Zairyo/Journal of the Society of Materials Science, Japan, 1995, 44, 597-601.	0.1	1
167	Elastic Properties of Structural Phases in Shape Memory Alloys Investigated by Resonant Ultrasound Spectroscopy. Materials Science Forum, 0, , 351-354.	0.3	1
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