Gunther Eggeler

List of Publications by Year
in descending order

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437 papers	23,597 citations	12330 69 h-index	11052 137 g-index
449 all docs	449 docs citations	449 times ranked	11362 citing authors

#	Article	IF	Citations
1	The influences of temperature and microstructure on the tensile properties of a CoCrFeMnNi high-entropy alloy. Acta Materialia, 2013, 61, 5743-5755.	7.9	2,352
2	Microstructure evolution and critical stress for twinning in the CrMnFeCoNi high-entropy alloy. Acta Materialia, 2016, 118, 152-163.	7.9	823
3	Reasons for the superior mechanical properties of medium-entropy CrCoNi compared to high-entropy CrMnFeCoNi. Acta Materialia, 2017, 128, 292-303.	7.9	803
4	Influence of Ni on martensitic phase transformations in NiTi shape memory alloys. Acta Materialia, 2010, 58, 3444-3458.	7.9	696
5	Decomposition of the single-phase high-entropy alloy CrMnFeCoNi after prolonged anneals at intermediate temperatures. Acta Materialia, 2016, 112, 40-52.	7.9	653
6	Structural and functional fatigue of NiTi shape memory alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 378, 24-33.	5.6	648
7	Ni4Ti3-precipitation during aging of NiTi shape memory alloys and its influence on martensitic phase transformations. Acta Materialia, 2002, 50, 4255-4274.	7.9	571
8	The evolution of dislocation density during heat treatment and creep of tempered martensite ferritic steels. Acta Materialia, 2003, 51, 4847-4862.	7.9	420
9	On the formation and growth of intermetallic phases during interdiffusion between low-carbon steel and aluminum alloys. Acta Materialia, 2011, 59, 1586-1600.	7.9	397
10	Uptake and intracellular distribution of silver nanoparticles in human mesenchymal stem cells. Acta Biomaterialia, 2011, 7, 347-354.	8.3	335
11	Temperature dependencies of the elastic moduli and thermal expansion coefficient of an equiatomic, single-phase CoCrFeMnNi high-entropy alloy. Journal of Alloys and Compounds, 2015, 623, 348-353.	5.5	331
12	On the effect of alloy composition on martensite start temperatures and latent heats in Niâ€“Ti-based shape memory alloys. Acta Materialia, 2015, 90, 213-231.	7.9	320
13	Identification of Quaternary Shape Memory Alloys with Nearâ€Zero Thermal Hysteresis and Unprecedented Functional Stability. Advanced Functional Materials, 2010, 20, 1917-1923.	14.9	304
14	The mechanism of multistage martensitic transformations in aged Ni-rich NiTi shape memory alloys. Acta Materialia, 2002, 50, 793-803.	7.9	298
15	Caloric Effects in Ferroic Materials: New Concepts for Cooling. Advanced Engineering Materials, 2012, 14, 10-19.	3.5	278
16	On the multiplication of dislocations during martensitic transformations in NiTi shape memory alloys. Acta Materialia, 2010, 58, 1850-1860.	7.9	262
17	On the effect of long-term creep on the microstructure of a 12% chromium tempered martensite ferritic steel. Acta Materialia, 2009, 57, 5093-5106.	7.9	236
18	On the contribution of carbides and micrograin boundaries to the creep strength of tempered martensite ferritic steels. Acta Materialia, 2007, 55, 539-550.	7.9	234

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19	Elementary martensitic transformation processes in Ni-rich NiTi single crystals with Ni4Ti3 precipitates. Acta Materialia, 2006, 54, 3525-3542.	7.9	194
20	Oxidation Behavior of the CrMnFeCoNi High-Entropy Alloy. Oxidation of Metals, 2016, 85, 629-645.	2.1	190
21	High quality vacuum induction melting of small quantities of NiTi shape memory alloys in graphite crucibles. Journal of Alloys and Compounds, 2004, 385, 214-223.	5.5	177
22	Analysis of strengthening due to grain boundaries and annealing twin boundaries in the CrCoNi medium-entropy alloy. International Journal of Plasticity, 2020, 124, 155-169.	8.8	167
23	Microstructural evolution of a CoCrFeMnNi high-entropy alloy after swaging and annealing. Journal of Alloys and Compounds, 2015, 647, 548-557.	5.5	158
24	The effect of long-term creep on particle coarsening in tempered martensite ferritic steels. Acta Metallurgica, 1989, 37, 3225-3234.	2.1	147
25	Î³â€²-cutting as rate-controlling recovery process during high-temperature and low-stress creep of superalloy single crystals. Acta Materialia, 2000, 48, 4867-4878.	7.9	146
26	Fracture mechanics and microstructure in NiTi shape memory alloys. Acta Materialia, 2009, 57, 1015-1025.	7.9	145
27	Phase volume fractions and strain measurements in an ultrafine-grained NiTi shape-memory alloy during tensile loading. Acta Materialia, 2010, 58, 2344-2354.	7.9	145
28	Impurity levels and fatigue lives of pseudoelastic NiTi shape memory alloys. Acta Materialia, 2013, 61, 3667-3686.	7.9	145
29	Effect of Ni4Ti3 precipitation on martensitic transformation in Tiâ€“Ni. Acta Materialia, 2010, 58, 6685-6694.	7.9	140
30	The nucleation of Mo-rich Laves phase particles adjacent to M23C6 micrograin boundary carbides in 12% Cr tempered martensite ferritic steels. Acta Materialia, 2015, 90, 94-104.	7.9	140
31	On the influence of silicon on the growth of the alloy layer during hot dip aluminizing. Journal of Materials Science, 1986, 21, 3348-3350.	3.7	135
32	Multiple-step martensitic transformations in Ni-rich NiTi alloys--an in-situ transmission electron microscopy investigation. Philosophical Magazine, 2003, 83, 339-363.	1.6	134
33	Cell type-specific responses of peripheral blood mononuclear cells to silver nanoparticles. Acta Biomaterialia, 2011, 7, 3505-3514.	8.3	133
34	Influence of carbon on martensitic phase transformations in NiTi shape memory alloys. Acta Materialia, 2007, 55, 1331-1341.	7.9	132
35	On the nucleation of Laves phase particles during high-temperature exposure and creep of tempered martensite ferritic steels. Acta Materialia, 2014, 81, 230-240.	7.9	129
36	On the formation of ã€ˆ010ã€‰-dislocations in the Î³â€²-phase of superalloy single crystals during high temperature low stress creep. Acta Materialia, 1997, 45, 4251-4262.	7.9	125

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37	Three-Dimensional Cu Foam-Supported Single Crystalline Mesoporous Cu₂O Nanothorn Arrays for Ultra-Highly Sensitive and Efficient Nonenzymatic Detection of Glucose. ACS Applied Materials & Interfaces, 2015, 7, 20215-20223.	8.0	125
38	Structural fatigue of pseudoelastic NiTi shape memory wires. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 378, 105-109.	5.6	123
39	Effect of temperature and texture on the reorientation of martensite variants in NiTi shape memory alloys. Acta Materialia, 2017, 127, 143-152.	7.9	122
40	High-temperature and low-stress creep anisotropy of single-crystal superalloys. Acta Materialia, 2013, 61, 2926-2943.	7.9	119
41	Crack initiation and propagation in 50.9 at. pct Ni-Ti pseudoelastic shape-memory wires in bending-rotation fatigue. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2003, 34, 2847-2860.	2.2	117
42	Advanced Scale Bridging Microstructure Analysis of Single Crystal Niâ€Base Superalloys. Advanced Engineering Materials, 2015, 17, 216-230.	3.5	117
43	Microstructure and Mechanical Properties of CMSX-4 Single Crystals Prepared by Additive Manufacturing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 3781-3792.	2.2	114
44	On the nature of Î³â€² phase cutting and its effect on high temperature and low stress creep anisotropy of Ni-base single crystal superalloys. Acta Materialia, 2014, 69, 246-264.	7.9	113
45	Interface dislocations in superalloy single crystals. Acta Materialia, 1999, 47, 2497-2510.	7.9	111
46	Effect of climb on dislocation mechanisms and creep rates in Î³â€²-strengthened Ni base superalloy single crystals: A discrete dislocation dynamics study. Acta Materialia, 2013, 61, 3709-3723.	7.9	110
47	Multiple-step martensitic transformations in Ni-rich NiTi shape memory alloys. Scripta Materialia, 2004, 50, 187-192.	5.2	105
48	Unveiling the Re effect in Ni-based single crystal superalloys. Nature Communications, 2020, 11, 389.	12.8	101
49	On the formation and growth of Mo-rich Laves phase particles during long-term creep of a 12% chromium tempered martensite ferritic steel. Scripta Materialia, 2009, 61, 1068-1071.	5.2	100
50	On the influence of heterogeneous precipitation on martensitic transformations in a Ni-rich NiTi shape memory alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 378, 148-151.	5.6	98
51	Elementary Transformation and Deformation Processes and the Cyclic Stability of NiTi and NiTiCu Shape Memory Spring Actuators. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 2530-2544.	2.2	97
52	Pseudoelastic cycling of ultra-fine-grained NiTi shape-memory wires. International Journal of Materials Research, 2005, 96, 608-618.	0.8	94
53	Metallic materials for structural applications beyond nickel-based superalloys. Jom, 2009, 61, 61-67.	1.9	92
54	Analysis of creep in a welded â€˜P91â€™ pressure vessel. International Journal of Pressure Vessels and Piping, 1994, 60, 237-257.	2.6	91

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55	Observations of aã€˜010ã€‰ dislocations during the high-temperature creep of Ni-based superalloy single crystals deformed along the [001] orientation. Acta Materialia, 2007, 55, 2509-2518.	7.9	91
56	Powder metallurgical processing of NiTi shape memory alloys with elevated transformation temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 491, 270-278.	5.6	90
57	Effect of nitrogen doping on the reducibility, activity and selectivity of carbon nanotube-supported iron catalysts applied in CO2 hydrogenation. Applied Catalysis A: General, 2014, 482, 163-170.	4.3	89
58	On the diffusive phase transformation mechanism assisted by extended dislocations during creep of a single crystal CoNi-based superalloy. Acta Materialia, 2018, 155, 362-371.	7.9	89
59	Creep of a TiAl alloy: a comparison of indentation and tensile testing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 357, 346-354.	5.6	86
60	The evolution of tribolayers during high temperature sliding wear. Wear, 2014, 315, 1-10.	3.1	85
61	Miniature Specimen Assessment of Creep of the Single-Crystal Superalloy LEKÂ94 in the 1000ÂÂ°C Temperature Range. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2007, 38, 314-327.	2.2	84
62	Direct physical evidence for the back-transformation of stress-induced martensite in the vicinity of cracks in pseudoelastic NiTi shape memory alloys. Acta Materialia, 2009, 57, 5892-5897.	7.9	83
63	Microstructural changes in a 12% chromium steel during creep. Steel Research = Archiv FÃ¼r Das EisenhÃ¼ttenwesen, 1987, 58, 97-103.	0.3	81
64	Microstructural study of creep rupture in a 12% chromium ferritic steel. Acta Metallurgica, 1989, 37, 49-60.	2.1	81
65	Dislocation reactions at Î³/Î³â€²-interfaces during shear creep deformation in the macroscopic crystallographic shear system (001)[110] of CMSX6 superalloy single crystals at 1025Â°C. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1998, 246, 133-142.	5.6	78
66	On the reaction between NiTi melts and crucible graphite during vacuum induction melting of NiTi shape memory alloys. Acta Materialia, 2005, 53, 3971-3985.	7.9	78
67	Multi-component nanoporous platinumâ€“rutheniumâ€“copperâ€“osmiumâ€“iridium alloy with enhanced electrocatalytic activity towards methanol oxidation and oxygen reduction. Journal of Power Sources, 2015, 273, 324-332.	7.8	78
68	The principal facet stress as a parameter for predicting creep rupture under multiaxial stresses. Acta Metallurgica, 1989, 37, 1067-1077.	2.1	76
69	Effect of low-temperature precipitation on the transformation characteristics of Ni-rich NiTi shape memory alloys during thermal cycling. Intermetallics, 2010, 18, 1172-1179.	3.9	76
70	A micromechanical model for creep in short fibre reinforced aluminium alloys. Acta Metallurgica Et Materialia, 1995, 43, 535-550.	1.8	75
71	Double minimum creep of single crystal Ni-base superalloys. Acta Materialia, 2016, 112, 242-260.	7.9	74
72	On the influence of stress state, stress level and temperature on Î³-channel widening in the single crystal superalloy CMSX-4. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 387-389, 133-137.	5.6	73

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73	Ductilization of Moâ€“Si solid solutions manufactured by powder metallurgy. Acta Materialia, 2009, 57, 3895-3901.	7.9	73
74	Nanoindentation studies of the mechanical properties of the Î¼ phase in a creep deformed Re containing nickel-based superalloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 634, 202-208.	5.6	72
75	On the role of Re in the stress and temperature dependence of creep of Ni-base single crystal superalloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 628, 382-395.	5.6	69
76	A microstructural study of creep in short fibre reinforced aluminium alloys. Acta Metallurgica Et Materialia, 1993, 41, 3245-3256.	1.8	68
77	Thermal Stabilization of NiTiCuV Shape Memory Alloys: Observations During Elastocaloric Training. Shape Memory and Superelasticity, 2015, 1, 132-141.	2.2	68
78	Free dislocations and boundary dislocations in tempered martensite ferritic steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 387-389, 176-180.	5.6	66
79	The Potential of Powder Metallurgy for the Fabrication of Biomaterials on the Basis of Nickel-Titanium: A Case Study with a Staple Showing Shape Memory Behaviour. Advanced Engineering Materials, 2005, 7, 613-619.	3.5	66
80	On the crystallographic anisotropy of nanoindentation in pseudoelastic NiTi. Acta Materialia, 2013, 61, 602-616.	7.9	66
81	Martensitic transformation in rapidly solidified Heusler Ni49Mn39Sn12 ribbons. Acta Materialia, 2011, 59, 5692-5699.	7.9	63
82	The effect of stress, temperature and loading direction on the creep behaviour of Ni-base single crystal superalloy miniature tensile specimens. Materials at High Temperatures, 2016, 33, 346-360.	1.0	63
83	On the influence of stress state on rafting in the single crystal superalloy CMSX-6 under conditions of high temperature and low stress creep. Scripta Materialia, 1998, 38, 589-594.	5.2	62
84	[001] preferentially-oriented 2D tungsten disulfide nanosheets as anode materials for superior lithium storage. Journal of Materials Chemistry A, 2015, 3, 17811-17819.	10.3	61
85	Analysis of dislocation structures after double shear creep deformation of CMSX6-superalloy single crystals at temperatures above 1000 Â°C. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1996, 207, 51-63.	5.6	60
86	Suppression of Ni₄Ti₃ Precipitation by Grain Size Refinement in Niâ€Rich NiTi Shape Memory Alloys. Advanced Engineering Materials, 2010, 12, 747-753.	3.5	60
87	On the characterization of recrystallized fraction using electron backscatter diffraction: A direct comparison to local hardness in an IF steel using nanoindentation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 7854-7864.	5.6	59
88	Atomic ordering effect in Ni50Mn37Sn13 magnetocaloric ribbons. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 534, 568-572.	5.6	59
89	Neutron diffraction phase analysis during thermal cycling of a Ni-rich NiTi shape memory alloy using the Rietveld method. Scripta Materialia, 2002, 46, 543-548.	5.2	58
90	How dislocation substructures evolve during long-term creep of a 12% Cr tempered martensitic ferritic steel. Scripta Materialia, 2010, 62, 353-356.	5.2	58

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91	Processing and property assessment of NiTi and NiTiCu shape memory actuator springs. Materialwissenschaft Und Werkstofftechnik, 2008, 39, 499-510.	0.9	57
92	Orientation dependence of stress-induced phase transformation and dislocation plasticity in NiTi shape memory alloys on the micro scale. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 538, 265-271.	5.6	57
93	Improvement of NiTi Shape Memory Actuator Performance Through Ultraâ€Fine Grained and Nanocrystalline Microstructures. Advanced Engineering Materials, 2011, 13, 256-268.	3.5	56
94	On the physical nature of tribolayers and wear debris after sliding wear in a superalloy/steel tribosystem at 25 and 300Â°C. Wear, 2014, 317, 26-38.	3.1	56
95	Length-Scale Modulated and Electrocatalytic Activity Enhanced Nanoporous Gold by Doping. Journal of Physical Chemistry C, 2011, 115, 4456-4465.	3.1	55
96	On the formation of martensite in front of cracks in pseudoelastic shape memory alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 394, 393-398.	5.6	54
97	Ultrahigh-temperature tensile creep of TiC-reinforced Mo-Si-B-based alloy. Scientific Reports, 2018, 8, 10487.	3.3	54
98	High porosity and high-strength porous NiTi shape memory alloys with controllable pore characteristics. Journal of Alloys and Compounds, 2009, 470, L1-L5.	5.5	53
99	Advanced scanning transmission stereo electron microscopy of structural and functional engineering materials. Ultramicroscopy, 2012, 122, 48-59.	1.9	53
100	Cyclic degradation mechanisms in aged FeNiCoAlTa shape memory single crystals. Acta Materialia, 2014, 79, 126-137.	7.9	53
101	Deformation and damage processes in a 12%Crî—¸Moî—¸V steel under high temperature low cycle fatigue conditions in air and vacuum. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1989, 110, 103-114.	5.6	52
102	Martensitic phase transformation in Ni-rich NiTi single crystals with one family of Ni4Ti3 precipitates. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 378, 152-156.	5.6	52
103	L12-phase cutting during high temperature and low stress creep of a Re-containing Ni-base single crystal superalloy. Journal of Materials Science, 2007, 42, 3951-3957.	3.7	52
104	On the effect of superimposed external stresses on the nucleation and growth of Ni4Ti3 particles: A parametric phase field study. Acta Materialia, 2011, 59, 3287-3296.	7.9	52
105	Thermal barrier coating systems â€" analysis of nanoindentation curves. Surface and Coatings Technology, 2009, 203, 2064-2072.	4.8	51
106	On the Stress-Induced Formation of R-Phase in Ultra-Fine-Grained Ni-Rich NiTi Shape Memory Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 2556-2574.	2.2	51
107	Martensite aging â€“ Avenue to new high temperature shape memory alloys. Acta Materialia, 2015, 89, 298-304.	7.9	51
108	On the segregation of Re at dislocations in the Î³' phase of Ni-based single crystal superalloys. Materialia, 2018, 4, 109-114.	2.7	51

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109	Double shear creep testing of superalloy single crystals at temperatures above 1000 Â°C. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1995, 199, 121-130.	5.6	50
110	Quantitative phase analysis in microstructures which display multiple step martensitic transformations in Ni-rich NiTi shape memory alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 438-440, 593-596.	5.6	50
111	On the influence of thermomechanical treatments on the microstructure and phase transformation behavior of Niâ€“Tiâ€“Fe shape memory alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 481-482, 635-638.	5.6	50
112	Microstructure â€“ Property correlations for additively manufactured NiTi based shape memory alloys. Materialia, 2019, 8, 100456.	2.7	50
113	Precipitation of Ni4Ti3-variants in a polycrystalline Ni-rich NiTi shape memory alloy. Scripta Materialia, 2005, 53, 99-104.	5.2	49
114	Functional Fatigue of Shape Memory Polymers. Advanced Engineering Materials, 2008, 10, 922-927.	3.5	49
115	Leaf-like dislocation substructures and the decrease of martensitic start temperatures: A new explanation for functional fatigue during thermally induced martensitic transformations in coarse-grained Ni-rich Tiâ€“Ni shape memory alloys. Acta Materialia, 2012, 60, 1999-2006.	7.9	49
116	Ledges and grooves at Î³/Î³â€² interfaces of single crystal superalloys. Acta Materialia, 2015, 90, 105-117.	7.9	49
117	Interdiffusion in Crâ€“Feâ€“Coâ€“Ni medium-entropy alloys. Intermetallics, 2020, 122, 106789.	3.9	49
118	Tension/Compression asymmetry of a creep deformed single crystal Co-base superalloy. Acta Materialia, 2019, 166, 597-610.	7.9	48
119	Effects of Cr/Ni ratio on physical properties of Cr-Mn-Fe-Co-Ni high-entropy alloys. Acta Materialia, 2022, 227, 117693.	7.9	47
120	A numerical study of parameters controlling stress redistribution in circular notched specimens during creep. Journal of Strain Analysis for Engineering Design, 1993, 28, 13-22.	1.8	46
121	On the effect of aging on martensitic transformations in Ni-rich NiTi shape memory alloys. Smart Materials and Structures, 2005, 14, S186-S191.	3.5	46
122	An ultrafine nanoporous bimetallic Agâ€“Pd alloy with superior catalytic activity. CrystEngComm, 2010, 12, 4059.	2.6	46
123	R-phase formation in Ti39Ni45Cu16 shape memory thin films and bulk alloys discovered by combinatorial methods. Acta Materialia, 2009, 57, 4169-4177.	7.9	45
124	Orientation dependence of stress-induced martensite formation during nanoindentation in NiTi shape memory alloys. Acta Materialia, 2014, 68, 19-31.	7.9	45
125	Controlled Etching of Carbon Nanotubes by Ironâ€Catalyzed Steam Gasification. Advanced Materials, 2007, 19, 3648-3652.	21.0	44
126	Sudden stress-induced transformation events during nanoindentation of NiTi shape memory alloys. Acta Materialia, 2014, 78, 144-160.	7.9	44

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127	Processing of a single-crystalline CrCoNi medium-entropy alloy and evolution of its thermal expansion and elastic stiffness coefficients with temperature. Scripta Materialia, 2020, 177, 44-48.	5.2	44
128	Bulk and Surface Low Temperature Phase Transitions in the Mg-Alloy EZ33A. Metals, 2020, 10, 1127.	2.3	44
129	Bioactivity and electrochemical behavior of hydroxyapatite-silicon-multi walled carbon nano-tubes composite coatings synthesized by EPD on NiTi alloys in simulated body fluid. Materials Science and Engineering C, 2017, 71, 473-482.	7.3	43
130	Chemical complexity, microstructure and martensitic transformation in high entropy shape memory alloys. Intermetallics, 2020, 122, 106792.	3.9	43
131	Hard X-ray studies of stress-induced phase transformations of superelastic NiTi shape memory alloys under uniaxial load. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 481-482, 414-419.	5.6	42
132	Microshear deformation of gold single crystals. Acta Materialia, 2014, 62, 225-238.	7.9	41
133	The effect of cast microstructure and crystallography on rafting, dislocation plasticity and creep anisotropy of single crystal Ni-base superalloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 626, 305-312.	5.6	41
134	Influence of stress state on the kinetics of Î³-channel widening during high temperature and low stress creep of the single crystal superalloy CMSX-4. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 319-321, 796-799.	5.6	40
135	The influence of temperature on lattice parameters of coexisting phases in NiTi shape memory alloysâ€"a neutron diffraction study. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 378, 161-164.	5.6	40
136	Vacuum Induction Melting of Ternary NiTiX (X=Cu, Fe, Hf, Zr) Shape Memory Alloys Using Graphite Crucibles. Materials Transactions, 2006, 47, 661-669.	1.2	40
137	The influence of temperature on the evolution of functional properties during pseudoelastic cycling of ultra fine grained NiTi. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 481-482, 142-145.	5.6	40
138	Constitutive modelling of the anisotropic creep behaviour of nickel-base single crystal superalloys. International Journal of Mechanical Sciences, 2009, 51, 305-313.	6.7	39
139	On Local Phase Equilibria and the Appearance of Nanoparticles in the Microstructure of Singleâ€Crystal Niâ€Base Superalloys. Advanced Engineering Materials, 2016, 18, 1556-1567.	3.5	39
140	On the nucleation of planar faults during low temperature and high stress creep of single crystal Ni-base superalloys. Acta Materialia, 2018, 144, 642-655.	7.9	39
141	Stress-induced formation of TCP phases during high temperature low cycle fatigue loading of the single-crystal Ni-base superalloy ERBO/1. Acta Materialia, 2019, 168, 343-352.	7.9	39
142	Direct transmission electron microscopy observations of martensitic transformations in Ni-rich NiTi single crystals during in situ cooling and straining. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 481-482, 452-456.	5.6	38
143	Damage evolution in pseudoelastic polycrystalline Coâ€"Niâ€"Ga high-temperature shape memory alloys. Journal of Alloys and Compounds, 2015, 633, 288-295.	5.5	38
144	On the evolution of cast microstructures during processing of single crystal Ni-base superalloys using a Bridgman seed technique. Materials and Design, 2017, 128, 98-111.	7.0	38

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145	Creep properties of single crystal Ni-base superalloys (SX): A comparison between conventionally cast and additive manufactured CMSX-4 materials. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 762, 138098.	5.6	38
146	"Direkte Bewertung der Kriechfestigkeit einer gerichtet erstarrten Turbinenschaufel mittels Minikriechproben. Materialwissenschaft Und Werkstofftechnik, 1999, 30, 465-472.	0.9	37
147	Selective surface oxidation and nitridation of NiTi shape memory alloys by reduction annealing. Corrosion Science, 2009, 51, 635-641.	6.6	37
148	Characterization of mechanical properties of hydroxyapatiteâ€“siliconâ€“multi walled carbon nano tubes composite coatings synthesized by EPD on NiTi alloys for biomedical application. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 59, 337-352.	3.1	37
149	High-performance elastocaloric materials for the engineering of bulk- and micro-cooling devices. MRS Bulletin, 2018, 43, 280-284.	3.5	37
150	Exploring the fundamentals of Ni-based superalloy single crystal (SX) alloy design: Chemical composition vs. microstructure. Materials and Design, 2020, 195, 108976.	7.0	37
151	Coarsening of the dislocation structure after stress reduction during creep of NaCl single crystals. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1981, 44, 1065-1084.	0.6	36
152	Functional and structural fatigue of titanium tantalum high temperature shape memory alloys (HT) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 Processing, 2015, 620, 359-366.	5.6	36
153	On the Effect of Hot Isostatic Pressing on the Creep Life of a Single Crystal Superalloys. Advanced Engineering Materials, 2016, 18, 1381-1387.	3.5	36
154	Rejuvenation of creep resistance of a Ni-base single-crystal superalloy by hot isostatic pressing. Materials and Design, 2017, 134, 418-425.	7.0	36
155	On Crystal Mosaicity in Single Crystal Ni-Based Superalloys. Crystals, 2019, 9, 149.	2.2	36
156	Molecular dynamics simulation study of microstructure evolution during cyclic martensitic transformations. Journal of the Mechanics and Physics of Solids, 2011, 59, 1888-1908.	4.8	35
157	Induction Melting of NiTi Shape Memory Alloysâ€“ The Influence of the Commercial Crucible Graphite on Alloy Quality. Materialwissenschaft Und Werkstofftechnik, 2004, 35, 352-358.	0.9	34
158	Nanoindentation of a Pseudoelastic NiTiFe Shape Memory Alloy. Advanced Engineering Materials, 2010, 12, 13-19.	3.5	34
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