Gunther Eggeler

List of Publications by Citations

434 papers	18,224 citations	64 h-index	120 g-index
449 ext. papers	20,962 ext. citations	4.3 avg, IF	6.88 L-index

#	Paper	IF	Citations
434	The influences of temperature and microstructure on the tensile properties of a CoCrFeMnNi high-entropy alloy. *Acta Materialia*, **2013**, 61, 5743-5755	8.4	1612
433	Structural and functional fatigue of NiTi shape memory alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2004**, 378, 24-33	5.3	544
432	Microstructure evolution and critical stress for twinning in the CrMnFeCoNi high-entropy alloy. *Acta Materialia*, **2016**, 118, 152-163	8.4	540
431	Influence of Ni on martensitic phase transformations in NiTi shape memory alloys. *Acta Materialia*, **2010**, 58, 3444-3458	8.4	526
430	Decomposition of the single-phase high-entropy alloy CrMnFeCoNi after prolonged anneals at intermediate temperatures. *Acta Materialia*, **2016**, 112, 40-52	8.4	485
429	Ni4Ti3-precipitation during aging of NiTi shape memory alloys and its influence on martensitic phase transformations. *Acta Materialia*, **2002**, 50, 4255-4274	8.4	483
428	Reasons for the superior mechanical properties of medium-entropy CrCoNi compared to high-entropy CrMnFeCoNi. *Acta Materialia*, **2017**, 128, 292-303	8.4	468
427	The evolution of dislocation density during heat treatment and creep of tempered martensite ferritic steels. *Acta Materialia*, **2003**, 51, 4847-4862	8.4	342
426	On the formation and growth of intermetallic phases during interdiffusion between low-carbon steel and aluminum alloys. *Acta Materialia*, **2011**, 59, 1586-1600	8.4	294
425	Uptake and intracellular distribution of silver nanoparticles in human mesenchymal stem cells. *Acta Biomaterialia*, **2011**, 7, 347-54	10.8	277
424	The mechanism of multistage martensitic transformations in aged Ni-rich NiTi shape memory alloys. *Acta Materialia*, **2002**, 50, 793-803	8.4	258
423	Identification of Quaternary Shape Memory Alloys with Near-Zero Thermal Hysteresis and Unprecedented Functional Stability. *Advanced Functional Materials*, **2010**, 20, 1917-1923	15.6	245
422	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	5.7	243
421	Caloric Effects in Ferroic Materials: New Concepts for Cooling. *Advanced Engineering Materials*, **2012**, 14, 10-19	3.5	242
420	On the effect of alloy composition on martensite start temperatures and latent heats in Ni□Ti-based shape memory alloys. *Acta Materialia*, **2015**, 90, 213-231	8.4	220
419	On the multiplication of dislocations during martensitic transformations in NiTi shape memory alloys. *Acta Materialia*, **2010**, 58, 1850-1860	8.4	210
418	On the effect of long-term creep on the microstructure of a 12% chromium tempered martensite ferritic steel. *Acta Materialia*, **2009**, 57, 5093-5106	8.4	199

417	On the contribution of carbides and micrograin boundaries to the creep strength of tempered martensite ferritic steels. *Acta Materialia*, **2007**, 55, 539-550	8.4	194
416	Elementary martensitic transformation processes in Ni-rich NiTi single crystals with Ni4Ti3 precipitates. *Acta Materialia*, **2006**, 54, 3525-3542	8.4	158
415	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	5.7	156
414	The effect of long-term creep on particle coarsening in tempered martensite ferritic steels. *Acta Metallurgica*, **1989**, 37, 3225-3234		137
413	Microstructural evolution of a CoCrFeMnNi high-entropy alloy after swaging and annealing. *Journal of Alloys and Compounds*, **2015**, 647, 548-557	5.7	127
412	Fracture mechanics and microstructure in NiTi shape memory alloys. *Acta Materialia*, **2009**, 57, 1015-1025	8.4	126
411	Phase volume fractions and strain measurements in an ultrafine-grained NiTi shape-memory alloy during tensile loading. *Acta Materialia*, **2010**, 58, 2344-2354	8.4	125
410	Oxidation Behavior of the CrMnFeCoNi High-Entropy Alloy. *Oxidation of Metals*, **2016**, 85, 629-645	1.6	122
409	-cutting as rate-controlling recovery process during high-temperature and low-stress creep of superalloy single crystals. *Acta Materialia*, **2000**, 48, 4867-4878	8.4	115
408	Cell type-specific responses of peripheral blood mononuclear cells to silver nanoparticles. *Acta Biomaterialia*, **2011**, 7, 3505-14	10.8	114
407	Multiple-step martensitic transformations in Ni-rich NiTi alloys--an in-situ transmission electron microscopy investigation. *Philosophical Magazine*, **2003**, 83, 339-363	1.6	112
406	On the influence of silicon on the growth of the alloy layer during hot dip aluminizing. *Journal of Materials Science*, **1986**, 21, 3348-3350	4.3	112
405	Impurity levels and fatigue lives of pseudoelastic NiTi shape memory alloys. *Acta Materialia*, **2013**, 61, 3667-3686	8.4	110
404	Effect of Ni4Ti3 precipitation on martensitic transformation in TiNi. *Acta Materialia*, **2010**, 58, 6685-6694	8.4	110
403	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	8.4	109
402	Influence of carbon on martensitic phase transformations in NiTi shape memory alloys. *Acta Materialia*, **2007**, 55, 1331-1341	8.4	109
401	On the formation of <010>-dislocations in the -phase of superalloy single crystals during high temperature low stress creep. *Acta Materialia*, **1997**, 45, 4251-4262	8.4	108
400	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, 20215-23	9.5	104

399	Structural fatigue of pseudoelastic NiTi shape memory wires. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2004**, 378, 105-109	5.3	103
398	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	2.3	101
397	Multiple-step martensitic transformations in Ni-rich NiTi shape memory alloys. *Scripta Materialia*, **2004**, 50, 187-192	5.6	98
396	Advanced Scale Bridging Microstructure Analysis of Single Crystal Ni-Base Superalloys. *Advanced Engineering Materials*, **2015**, 17, 216-230	3.5	95
395	High-temperature and low-stress creep anisotropy of single-crystal superalloys. *Acta Materialia*, **2013**, 61, 2926-2943	8.4	94
394	Effect of climb on dislocation mechanisms and creep rates in γ′-strengthened Ni base superalloy single crystals: A discrete dislocation dynamics study. *Acta Materialia*, **2013**, 61, 3709-3723	8.4	91
393	Interface dislocations in superalloy single crystals. *Acta Materialia*, **1999**, 47, 2497-2510	8.4	91
392	On the nucleation of Laves phase particles during high-temperature exposure and creep of tempered martensite ferritic steels. *Acta Materialia*, **2014**, 81, 230-240	8.4	90
391	On the nature of γ′ 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	8.4	88
390	Pseudoelastic cycling of ultra-fine-grained NiTi shape-memory wires. *International Journal of Materials Research*, **2005**, 96, 608-618		88
389	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	2.3	87
388	Effect of temperature and texture on the reorientation of martensite variants in NiTi shape memory alloys. *Acta Materialia*, **2017**, 127, 143-152	8.4	86
387	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	5.3	86
386	Analysis of creep in a welded P91 pressure vessel. *International Journal of Pressure Vessels and Piping*, **1994**, 60, 237-257	2.4	82
385	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	5.3	78
384	Microstructural study of creep rupture in a 12% chromium ferritic steel. *Acta Metallurgica*, **1989**, 37, 49-60		78
383	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	7.6	77
382	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	5.6	76

381	Metallic materials for structural applications beyond nickel-based superalloys. *Jom*, **2009**, 61, 61-67	2.1	76
380	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	5.3	76
379	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	8.4	75
378	Miniature Specimen Assessment of Creep of the Single-Crystal Superalloy LEK 94 in the 1000 °C Temperature Range. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2007**, 38, 314-327	2.3	75
377	Microstructural changes in a 12% chromium steel during creep. *Steel Research = Archiv Für Das Eisenhüttenwesen*, **1987**, 58, 97-103		75
376	A micromechanical model for creep in short fibre reinforced aluminium alloys. *Acta Metallurgica Et Materialia*, **1995**, 43, 535-550		70
375	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	2.3	69
374	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	5.1	67
373	Observations of a<010> dislocations during the high-temperature creep of Ni-based superalloy single crystals deformed along the [001] orientation. *Acta Materialia*, **2007**, 55, 2509-2518	8.4	66
372	Ductilization of MoSi solid solutions manufactured by powder metallurgy. *Acta Materialia*, **2009**, 57, 3895-3901	8.4	65
371	Dislocation reactions at -interfaces during shear creep deformation in the macroscopic crystallographic shear system (001)[110] of CMSX6 superalloy single crystals at 1025°C. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1998**, 246, 133-142	5.3	65
370	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	8.4	64
369	On the reaction between NiTi melts and crucible graphite during vacuum induction melting of NiTi shape memory alloys. *Acta Materialia*, **2005**, 53, 3971-3985	8.4	64
368	The principal facet stress as a parameter for predicting creep rupture under multiaxial stresses. *Acta Metallurgica*, **1989**, 37, 1067-1077		63
367	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	62
366	A microstructural study of creep in short fibre reinforced aluminium alloys. *Acta Metallurgica Et Materialia*, **1993**, 41, 3245-3256		62
365	The evolution of tribolayers during high temperature sliding wear. *Wear*, **2014**, 315, 1-10	3.5	61
364	Thermal Stabilization of NiTiCuV Shape Memory Alloys: Observations During Elastocaloric Training. *Shape Memory and Superelasticity*, **2015**, 1, 132-141	2.8	61

363	Effect of low-temperature precipitation on the transformation characteristics of Ni-rich NiTi shape memory alloys during thermal cycling. *Intermetallics*, **2010**, 18, 1172-1179	3.5	61
362	On the influence of stress state, stress level and temperature on γ′ channel widening in the single crystal superalloy CMSX-4. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2004**, 387-389, 133-137	5.3	61
361	Martensitic transformation in rapidly solidified Heusler Ni49Mn39Sn12 ribbons. *Acta Materialia*, **2011**, 59, 5692-5699	8.4	56
360	Atomic ordering effect in Ni50Mn37Sn13 magnetocaloric ribbons. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 534, 568-572	5.3	55
359	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	5.3	55
358	Multi-component nanoporous platinum–ruthenium–copper–osmium–iridium alloy with enhanced electrocatalytic activity towards methanol oxidation and oxygen reduction. *Journal of Power Sources*, **2015**, 273, 324-332	8.9	54
357	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	5.6	54
356	Double minimum creep of single crystal Ni-base superalloys. *Acta Materialia*, **2016**, 112, 242-260	8.4	54
355	Nanoindentation studies of the mechanical properties of the γ′ phase in a creep deformed Re containing nickel-based superalloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 634, 202-208	5.3	52
354	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	5.3	52
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352	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	5.6	52
351	Length-Scale Modulated and Electrocatalytic Activity Enhanced Nanoporous Gold by Doping. *Journal of Physical Chemistry C*, **2011**, 115, 4456-4465	3.8	51
350	Processing and property assessment of NiTi and NiTiCu shape memory actuator springs. *Materialwissenschaft Und Werkstofftechnik*, **2008**, 39, 499-510	0.9	51
349	[001] preferentially-oriented 2D tungsten disulfide nanosheets as anode materials for superior lithium storage. *Journal of Materials Chemistry A*, **2015**, 3, 17811-17819	13	50
348	On the crystallographic anisotropy of nanoindentation in pseudoelastic NiTi. *Acta Materialia*, **2013**, 61, 602-616	8.4	49
347	How dislocation substructures evolve during long-term creep of a 12% Cr tempered martensitic ferritic steel. *Scripta Materialia*, **2010**, 62, 353-356	5.6	49
346	Suppression of Ni4Ti3 Precipitation by Grain Size Refinement in Ni-Rich NiTi Shape Memory Alloys. *Advanced Engineering Materials*, **2010**, 12, 747-753	3.5	48

345	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	5.3	48
344	Analysis of dislocation structures after double shear creep deformation of CMSX6-superalloy single crystals at temperatures above 1000 °C. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1996**, 207, 51-63	5.3	48
343	Deformation and damage processes in a 12%Cr?Mo?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	5.3	48
342	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	1.1	46
341	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	5.3	46
340	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	5.3	46
339	Martensite aging □Avenue to new high temperature shape memory alloys. *Acta Materialia*, **2015**, 89, 298-304	8.4	45
338	Cyclic degradation mechanisms in aged FeNiCoAlTa shape memory single crystals. *Acta Materialia*, **2014**, 79, 126-137	8.4	45
337	Advanced scanning transmission stereo electron microscopy of structural and functional engineering materials. *Ultramicroscopy*, **2012**, 122, 48-59	3.1	44
336	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	2.3	44
335	Thermal barrier coating systems □analysis of nanoindentation curves. *Surface and Coatings Technology*, **2009**, 203, 2064-2072	4.4	44
334	On the influence of thermomechanical treatments on the microstructure and phase transformation behavior of Ni□Ti□e shape memory alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 481-482, 635-638	5.3	44
333	Double shear creep testing of superalloy single crystals at temperatures above 1000 °C. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1995**, 199, 121-130	5.3	44
332	An ultrafine nanoporous bimetallic Ag□d alloy with superior catalytic activity. *CrystEngComm*, **2010**, 12, 4059	3.3	43
331	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	8.4	43
330	Precipitation of Ni4Ti3-variants in a polycrystalline Ni-rich NiTi shape memory alloy. *Scripta Materialia*, **2005**, 53, 99-104	5.6	43
329	Unveiling the Re effect in Ni-based single crystal superalloys. *Nature Communications*, **2020**, 11, 389	17.4	42
328	On the physical nature of tribolayers and wear debris after sliding wear in a superalloy/steel tribosystem at 25 and 300□C. *Wear*, **2014**, 317, 26-38	3.5	42

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326	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	5.3	42
325	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	1.3	42
324	Improvement of NiTi Shape Memory Actuator Performance Through Ultra-Fine Grained and Nanocrystalline Microstructures. *Advanced Engineering Materials*, **2011**, 13, 256-268	3.5	41
323	Controlled Etching of Carbon Nanotubes by Iron-Catalyzed Steam Gasification. *Advanced Materials*, **2007**, 19, 3648-3652	24	41
322	R-phase formation in Ti39Ni45Cu16 shape memory thin films and bulk alloys discovered by combinatorial methods. *Acta Materialia*, **2009**, 57, 4169-4177	8.4	40
321	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	4.3	40
320	On the effect of aging on martensitic transformations in Ni-rich NiTi shape memory alloys. *Smart Materials and Structures*, **2005**, 14, S186-S191	3.4	40
319	On the nature of internal interfaces in tempered martensite ferritic steels. *International Journal of Materials Research*, **2003**, 94, 511-520		39
318	On the segregation of Re at dislocations in the □phase of Ni-based single crystal superalloys. *Materialia*, **2018**, 4, 109-114	3.2	38
317	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	5.3	37
316	Ledges and grooves at □□ interfaces of single crystal superalloys. *Acta Materialia*, **2015**, 90, 105-117	8.4	36
315	The influence of temperature on lattice parameters of coexisting phases in NiTi shape memory alloys□ neutron diffraction study. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2004**, 378, 161-164	5.3	36
314	Ultrahigh-temperature tensile creep of TiC-reinforced Mo-Si-B-based alloy. *Scientific Reports*, **2018**, 8, 10487	4.9	35
313	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	8.3	35
312	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	5.3	35
311	Molecular dynamics simulation study of microstructure evolution during cyclic martensitic transformations. *Journal of the Mechanics and Physics of Solids*, **2011**, 59, 1888-1908	5	34
310	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	5.3	34

309	On Local Phase Equilibria and the Appearance of Nanoparticles in the Microstructure of Single-Crystal Ni-Base Superalloys . *Advanced Engineering Materials*, **2016**, 18, 1556-1567	3.5	33
308	Induction Melting of NiTi Shape Memory Alloys The Influence of the Commercial Crucible Graphite on Alloy Quality. *Materialwissenschaft Und Werkstofftechnik*, **2004**, 35, 352-358	0.9	33
307	Direct Assessment of the Creep Strength of DS Cast Turbine Blades Using Miniature Creep Specimens. *Materialwissenschaft Und Werkstofftechnik*, **1999**, 30, 465-472	0.9	33
306	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		33
305	Sudden stress-induced transformation events during nanoindentation of NiTi shape memory alloys. *Acta Materialia*, **2014**, 78, 144-160	8.4	32
304	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	5.3	32
303	Bulk and Surface Low Temperature Phase Transitions in the Mg-Alloy EZ33A. *Metals*, **2020**, 10, 1127	2.3	32
302	Damage evolution in pseudoelastic polycrystalline CoNiGa high-temperature shape memory alloys. *Journal of Alloys and Compounds*, **2015**, 633, 288-295	5.7	31
301	Microshear deformation of gold single crystals. *Acta Materialia*, **2014**, 62, 225-238	8.4	31
300	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 TiNi shape memory alloys. *Acta Materialia*, **2012**, 60, 1999-2006	8.4	31
299	Selective surface oxidation and nitridation of NiTi shape memory alloys by reduction annealing. *Corrosion Science*, **2009**, 51, 635-641	6.8	31
298	Influence of stress state on the kinetics of 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	5.3	31
297	Microstructure Property correlations for additively manufactured NiTi based shape memory alloys. *Materialia*, **2019**, 8, 100456	3.2	30
296	Functional Fatigue and Tension Compression Asymmetry in [001]-Oriented Co49Ni21Ga30 High-Temperature Shape Memory Alloy Single Crystals. *Shape Memory and Superelasticity*, **2015**, 1, 6-17	2.8	30
295	Characterization of mechanical properties of hydroxyapatite-silicon-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	4.1	30
294	Nanoindentation of a Pseudoelastic NiTiFe Shape Memory Alloy. *Advanced Engineering Materials*, **2010**, 12, 13-19	3.5	30
293	Functional and structural fatigue of titanium tantalum high temperature shape memory alloys (HT SMAs). *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 620, 359-366	5.3	29
292	On the effect of TiC particles on the tensile properties and on the intrinsic two way effect of NiTi shape memory alloys produced by powder metallurgy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1999**, 273-275, 410-414	5.3	29

291	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	8.1	28
290	High-performance elastocaloric materials for the engineering of bulk- and micro-cooling devices. *MRS Bulletin*, **2018**, 43, 280-284	3.2	28
289	Dealloying strategy to fabricate ultrafine nanoporous gold-based alloys with high structural stability and tunable magnetic properties. *CrystEngComm*, **2012**, 14, 8292	3.3	28
288	Constitutive modelling of the anisotropic creep behaviour of nickel-base single crystal superalloys. *International Journal of Mechanical Sciences*, **2009**, 51, 305-313	5.5	28
287	Axial□torsional thermomechanical fatigue of a near-□TiAl-alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2010**, 527, 3829-3839	5.3	28
286	Pseudoelastic cycling and ageing effects at ambient temperature in nanocrystalline Ni-rich NiTi wire. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 481-482, 86-90	5.3	28
285	Vacuum Induction Melting of Ternary NiTiX (X=Cu, Fe, Hf, Zr) Shape Memory Alloys Using Graphite Crucibles. *Materials Transactions*, **2006**, 47, 661-669	1.3	28
284	High apparent creep activation energies in mushy zone microstructures. *Scripta Metallurgica Et Materialia*, **1994**, 31, 757-762		28
283	Orientation dependence of stress-induced martensite formation during nanoindentation in NiTi shape memory alloys. *Acta Materialia*, **2014**, 68, 19-31	8.4	27
282	Compact tension testing of martensitic/pseudoplastic NiTi shape memory alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 481-482, 156-159	5.3	27
281	Microstructural parameters for creep damage quantification. *Acta Metallurgica Et Materialia*, **1991**, 39, 221-231		27
280	Strain mapping of crack extension in pseudoelastic NiTi shape memory alloys during static loading. *Acta Materialia*, **2013**, 61, 5800-5806	8.4	26
279	Microstructural evidence for dynamic recrystallization during creep of a duplex near-□TiAl-alloy. *Scripta Materialia*, **1998**, 39, 1545-1551	5.6	26
278	Surface engineering of shape memory alloy/polymer-composites: Improvement of the adhesion between polymers and pseudoelastic shape memory alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 481-482, 606-611	5.3	26
277	Stress and strain states in a pseudoelastic wire subjected to bending rotation. *Mechanics of Materials*, **2006**, 38, 1012-1025	3.3	26
276	Tension/Compression asymmetry of a creep deformed single crystal Co-base superalloy. *Acta Materialia*, **2019**, 166, 597-610	8.4	26
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