Gunther Eggeler

List of Publications by Year in Descending Order

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	Effects of Cr/Ni ratio on physical properties of Cr-Mn-Fe-Co-Ni high-entropy alloys. *Acta Materialia*, **2022**, 227, 117693	8.4	2
433	Crystallographic Analysis of Plate and Lath Martensite in Fe-Ni Alloys. *Crystals*, **2022**, 12, 156	2.3	2
432	Effects of aging on the stress-induced martensitic transformation and cyclic superelastic properties in Co-Ni-Ga shape memory alloy single crystals under compression. *Acta Materialia*, **2022**, 226, 117623	8.4	5
431	On the nature of internal interfaces in tempered martensite ferritic steels. *International Journal of Materials Research*, **2022**, 94, 511-520	0.5	2
430	The effect of deviations from precise [001] tensile direction on creep of Ni-base single crystal superalloys. *Scripta Materialia*, **2022**, 207, 114274	5.6	0
429	Elementary deformation processes in high temperature plasticity of Ni- and Co-base single-crystal superalloys with □/□ microstructures **2022**, 141-189		
428	On the impact of nanometric □ precipitates on the tensile deformation of superelastic Co49Ni21Ga30. *Acta Materialia*, **2022**, 230, 117835	8.4	
427	The role of electrons during the martensitic phase transformation in NiTi-based shape memory alloys. *Materials Today Physics*, **2022**, 100671	8	
426	On the determination of the volume fraction of Ni4Ti3 precipitates in binary Ni-rich NiTi shape memory alloys. *International Journal of Materials Research*, **2022**, 95, 518-524	0.5	
425	Boron segregation and creep in ultra-fine grained tempered martensite ferritic steels. *International Journal of Materials Research*, **2022**, 96, 743-748	0.5	
424	Einfluss von thermomechanischer Behandlung auf die Mikrostruktur von pseudoelastischem NiTi am Beispiel von Komponenten f□ Brillengestelle. *Praktische Metallographie/Practical Metallography*, **2022**, 44, 317-333	0.3	
423	Effect of cooling rate on the microstructure and mechanical properties of a low-carbon low-alloyed steel. *Journal of Materials Science*, **2021**, 56, 11098-11113	4.3	3
422	Impact of test temperature on functional degradation in Fe-Ni-Co-Al-Ta shape memory alloy single crystals. *Materials Letters*, **2021**, 291, 129430	3.3	0
421	Laboratory-Scale Processing and Performance Assessment of Ti□a High-Temperature Shape Memory Spring Actuators. *Shape Memory and Superelasticity*, **2021**, 7, 222-234	2.8	
420	Effect of off-stoichiometric compositions on microstructures and phase transformation behavior in Ni-Cu-Pd-Ti-Zr-Hf high entropy shape memory alloys. *Journal of Alloys and Compounds*, **2021**, 857, 157467	5.7	5
419	Dislocation networks in gamma/gamma□ microstructures formed during selective laser melting of a Ni-base superalloy. *Scripta Materialia*, **2021**, 190, 121-125	5.6	5
418	Surface metal matrix nano-composite of magnesium/hydroxyapatite produced by stir-centrifugal casting. *Surface and Coatings Technology*, **2021**, 406, 126654	4.4	2

417	Degradation behavior of the MgO/HA surface ceramic nano-composites in the simulated body fluid and its use as a potential bone implant. *Materials Chemistry and Physics*, **2021**, 258, 123965	4.4	5
416	Effect of interface dislocations on mass flow during high temperature and low stress creep of single crystal Ni-base superalloys. *Scripta Materialia*, **2021**, 191, 23-28	5.6	4
415	Thermoelastic properties and γ′ solvus temperatures of single-crystal Ni-base superalloys. *Journal of Materials Science*, **2021**, 56, 7637-7658	4.3	2
414	On the Size Effect of Additives in Amorphous Shape Memory Polymers. *Materials*, **2021**, 14,	3.5	2
413	A Mechanical Analysis of Chemically Stimulated Linear Shape Memory Polymer Actuation. *Materials* , **2021**, 14,	3.5	3
412	A 3D Analysis of Dendritic Solidification and Mosaicity in Ni-Based Single Crystal Superalloys. *Materials*, **2021**, 14,	3.5	1
411	TEM replica analysis of particle phases in a tempered martensite ferritic Cr steel after long term creep. *Materials Characterization*, **2021**, 181, 111396	3.9	0
410	On the rhenium segregation at the low angle grain boundary in a single crystal Ni-base superalloy. *Scripta Materialia*, **2020**, 185, 88-93	5.6	14
409	Pattern-forming nanoprecipitates in NiTi-related high entropy shape memory alloys. *Scripta Materialia*, **2020**, 186, 132-135	5.6	0
408	Revealing the two-step nucleation and growth mechanism of vanadium carbonitrides in microalloyed steels. *Scripta Materialia*, **2020**, 187, 350-354	5.6	9
407	How Nanoscale Dislocation Reactions Govern Low- Temperature and High-Stress Creep of Ni-Base Single Crystal Superalloys. *Crystals*, **2020**, 10, 134	2.3	4
406	Unveiling the Re effect in Ni-based single crystal superalloys. *Nature Communications*, **2020**, 11, 389	17.4	42
405	Chemical complexity, microstructure and martensitic transformation in high entropy shape memory alloys. *Intermetallics*, **2020**, 122, 106792	3.5	24
404	Interdiffusion in CrFeCoNi medium-entropy alloys. *Intermetallics*, **2020**, 122, 106789	3.5	23
403	Experimental and Theoretical Investigation on Phase Formation and Mechanical Properties in Cr-Co-Ni Alloys Processed Using a Novel Thin-Film Quenching Technique. *ACS Combinatorial Science* , **2020**, 22, 232-247	3.9	1
402	Exploring the fundamentals of Ni-based superalloy single crystal (SX) alloy design: Chemical composition vs. microstructure. *Materials and Design*, **2020**, 195, 108976	8.1	17
401	Effect of Aspect Ratio on the Deformation Behavior of Dislocation-Free NiAl Nanocubes. *Nanomaterials*, **2020**, 10,	5.4	1
400	On the stress and temperature dependence of low temperature and high stress shear creep in Ni-base single crystal superalloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 795, 139961	5.3	4

399	Bulk and Surface Low Temperature Phase Transitions in the Mg-Alloy EZ33A. *Metals*, **2020**, 10, 1127	2.3	32
398	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	5.6	24
397	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
396	On the influence of crystallography on creep of circular notched single crystal superalloy specimens. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 782, 139255	5.3	1
395	Microstructure Property correlations for additively manufactured NiTi based shape memory alloys. *Materialia*, **2019**, 8, 100456	3.2	30
394	Benchmark dataset of the effect of grain size on strength in the single-phase FCC CrCoNi medium entropy alloy. *Data in Brief*, **2019**, 27, 104592	1.2	4
393	Impact of Heating Cooling Rates on the Functional Properties of Ti20Ta5Al High-Temperature Shape Memory Alloys. *Shape Memory and Superelasticity*, **2019**, 5, 95-105	2.8	1
392	On the Oxidation Behavior and Its Influence on the Martensitic Transformation of Ti Ta High-Temperature Shape Memory Alloys. *Shape Memory and Superelasticity*, **2019**, 5, 63-72	2.8	3
391	Effect of Nb on improving the impact toughness of Mo-containing low-alloyed steels. *Journal of Materials Science*, **2019**, 54, 7307-7321	4.3	7
390	On the rejuvenation of crept Ni-Base single crystal superalloys (SX) by hot isostatic pressing (HIP). *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 758, 202-214	5.3	18
389	On Crystal Mosaicity in Single Crystal Ni-Based Superalloys. *Crystals*, **2019**, 9, 149	2.3	17
388	Repair of Ni-based single-crystal superalloys using vacuum plasma spray. *Materials and Design*, **2019**, 168, 107656	8.1	10
387	Ni-base superalloy single crystal (SX) mosaicity characterized by the Rotation Vector Base Line Electron Back Scatter Diffraction (RVB-EBSD) method. *Ultramicroscopy*, **2019**, 206, 112817	3.1	7
386	On the effects of microstructure on the mechanical properties of open-pore Al1Zn foams. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 759, 552-564	5.3	2
385	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	5.3	19
384	Discovery of free high-temperature Ti-Ta-X shape memory alloys from first-principles calculations. *Physical Review Materials*, **2019**, 3,	3.2	4
383	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	8.4	23
382	A Kinetic Study on the Evolution of Martensitic Transformation Behavior and Microstructures in Ti Ta High-Temperature Shape-Memory Alloys During Aging. *Shape Memory and Superelasticity*, **2019**, 5, 16-31	2.8	4

381	Tension/Compression asymmetry of a creep deformed single crystal Co-base superalloy. *Acta Materialia*, **2019**, 166, 597-610	8.4	26
380	On the evolution of dislocation cell structures in two Al-alloys (Al-5Mg and Al-11Zn) during reciprocal sliding wear at high homologous temperatures. *Wear*, **2019**, 418-419, 1-12	3.5	2
379	High-performance elastocaloric materials for the engineering of bulk- and micro-cooling devices. *MRS Bulletin*, **2018**, 43, 280-284	3.2	28
378	A phenomenological creep model for nickel-base single crystal superalloys at intermediate temperatures. *Modelling and Simulation in Materials Science and Engineering*, **2018**, 26, 055001	2	5
377	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	8.4	23
376	How evolving multiaxial stress states affect the kinetics of rafting during creep of single crystal Ni-base superalloys. *Acta Materialia*, **2018**, 158, 381-392	8.4	22
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	Ultrahigh-temperature tensile creep of TiC-reinforced Mo-Si-B-based alloy. *Scientific Reports*, **2018**, 8, 10487	4.9	35
373	A TEM Investigation of Columnar-Structured Thermal Barrier Coatings Deposited by Plasma Spray-Physical Vapor Deposition (PS-PVD). *Plasma Chemistry and Plasma Processing*, **2018**, 38, 791-802	3.6	10
372	On the accumulation of irreversible plastic strain during compression loading of open-pore metallic foams. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2018**, 728, 40-44	5.3	4
371	On the Electropolishing Mechanism of Nickel Titanium in Methanolic Sulfuric acid An Electrochemical Impedance Study. *Physica Status Solidi (A) Applications and Materials Science*, **2018**, 215, 1800011	1.6	1
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 Shear Testing of Single Crystal Ni-Base Superalloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2018**, 49, 3951-3962	2.3	3
368	Unusual composition dependence of transformation temperatures in Ti-Ta-X shape memory alloys. *Physical Review Materials*, **2018**, 2,	3.2	10
367	Temperature-induced transformations and martensitic reorientation processes in ultra-fine-grained Ni rich pseudoelastic NiTi wires studied by electrical resistance. *Journal of Alloys and Compounds*, **2018**, 735, 2574-2583	5.7	2
366	Testing of Ni-base superalloy single crystals with circular notched miniature tensile creep (CNMTC) specimens. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2018**, 712, 223-231	5.3	12
365	On the segregation of Re at dislocations in the phase of Ni-based single crystal superalloys. *Materialia*, **2018**, 4, 109-114	3.2	38
364	On the influence of crystallography and dendritic microstructure on micro shear behavior of single crystal Ni-based superalloys. *Acta Materialia*, **2018**, 160, 173-184	8.4	9

363	Martensite aging in <001> oriented Co49Ni21Ga30 single crystals in tension. *Functional Materials Letters*, **2018**, 11, 1850024	1.2	9
362	Rejuvenation of Single-Crystal Ni-Base Superalloy Turbine Blades: Unlimited Service Life?. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2018**, 49, 4262-4273	2.3	11
361	The Influence of Water and Solvent Uptake on Functional Properties of Shape-Memory Polymers. *International Journal of Polymer Science*, **2018**, 2018, 1-15	2.4	7
360	Carbide types in an advanced microalloyed bainitic/ferritic CrMo Steel TEM observations and thermodynamic calculations. *Materialwissenschaft Und Werkstofftechnik*, **2018**, 49, 726-740	0.9	4
359	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
358	Reasons for the superior mechanical properties of medium-entropy CrCoNi compared to high-entropy CrMnFeCoNi. *Acta Materialia*, **2017**, 128, 292-303	8.4	468
357	Optimizing NiTi-based shape memory alloys for ferroic cooling. *Functional Materials Letters*, **2017**, 10, 1740001	1.2	11
356	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
355	Composition, Constitution and Phase Transformation Behavior in Thin-Film and Bulk TiNiV. *Shape Memory and Superelasticity*, **2017**, 3, 49-56	2.8	3
354	Grain Nucleation and Growth in Deformed NiTi Shape Memory Alloys: An In Situ TEM Study. *Shape Memory and Superelasticity*, **2017**, 3, 347-360	2.8	8
353	Rejuvenation of creep resistance of a Ni-base single-crystal superalloy by hot isostatic pressing. *Materials and Design*, **2017**, 134, 418-425	8.1	23
352	Identification of a ternary phase in the Co-Ti-W system An advanced correlative thin-film and bulk combinatorial materials investigation. *Acta Materialia*, **2017**, 138, 100-110	8.4	9
351	Molecular dynamics simulations of entangled polymers: The effect of small molecules on the glass transition temperature. *Procedia Computer Science*, **2017**, 108, 265-271	1.6	12
350	On the competition between the stress-induced formation of martensite and dislocation plasticity during crack propagation in pseudoelastic NiTi shape memory alloys. *Journal of Materials Research*, **2017**, 32, 4433-4442	2.5	13
349	Microstructural evolution and functional fatigue of a Ti-25Ta high-temperature shape memory alloy. *Journal of Materials Research*, **2017**, 32, 4287-4295	2.5	8
348	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
347	Transmission electron microscopy study of the microstructural evolution during high-temperature and low-stress (011) (left[{01bar 1} right]) shear creep deformation of the superalloy single crystal LEK 94. *Journal of Materials Research*, **2017**, 32, 4491-4502	2.5	5
346	Microstructure evolution and critical stress for twinning in the CrMnFeCoNi high-entropy alloy. *Acta Materialia*, **2016**, 118, 152-163	8.4	540

345	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
344	Diffusion of small molecules in a shape memory polymer. *Journal of Materials Science*, **2016**, 51, 9792-9804	2.3	9
343	Experimental Methods for Investigation of Shape Memory Based Elastocaloric Cooling Processes and Model Validation. *Journal of Visualized Experiments*, **2016**,	1.6	1
342	Assessment of strain hardening in copper single crystals using in situ SEM microshear experiments. *Acta Materialia*, **2016**, 113, 320-334	8.4	12
341	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
340	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	22
339	Preparing hydroxyapatite-silicon composite suspensions with homogeneous distribution of multi-walled carbon nano-tubes for electrophoretic coating of NiTi bone implant and their effect on the surface morphology. *Applied Surface Science*, **2016**, 366, 158-165	6.7	25
338	Oxidation Behavior of the CrMnFeCoNi High-Entropy Alloy. *Oxidation of Metals*, **2016**, 85, 629-645	1.6	122
337	Twinning-Induced Elasticity in NiTi Shape Memory Alloys. *Shape Memory and Superelasticity*, **2016**, 2, 145-159	2.8	22
336	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
335	The influence of Si as reactive bonding agent in the electrophoretic coatings of HA□Si□MWCNTs on NiTi alloys. *Journal of Materials Engineering and Performance*, **2016**, 25, 390-400	1.6	15
334	Transmission Electron Microscopy of a CMSX-4 Ni-Base Superalloy Produced by Selective Electron Beam Melting. *Metals*, **2016**, 6, 258	2.3	14
333	Nanostructured Ti-Ta thin films synthesized by combinatorial glancing angle sputter deposition. *Nanotechnology*, **2016**, 27, 495604	3.4	13
332	On the Temperature Dependence of Creep Behavior of Ni-Base Single Crystal Superalloys **2016**, 711-718		1
331	Double minimum creep of single crystal Ni-base superalloys. *Acta Materialia*, **2016**, 112, 242-260	8.4	54
330	Decomposition of the single-phase high-entropy alloy CrMnFeCoNi after prolonged anneals at intermediate temperatures. *Acta Materialia*, **2016**, 112, 40-52	8.4	485
329	Martensite aging □Avenue to new high temperature shape memory alloys. *Acta Materialia*, **2015**, 89, 298-304	8.4	45
328	[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

327	Ledges and grooves at /2 interfaces of single crystal superalloys. *Acta Materialia*, **2015**, 90, 105-117	8.4	36
326	Microstructural evolution of a CoCrFeMnNi high-entropy alloy after swaging and annealing. *Journal of Alloys and Compounds*, **2015**, 647, 548-557	5.7	127
325	Nanoindentation studies of the mechanical properties of the 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
324	On the effect of alloy composition on martensite start temperatures and latent heats in Ni i-based shape memory alloys. *Acta Materialia*, **2015**, 90, 213-231	8.4	220
323	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
322	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
321	On the widths of the hysteresis of mechanically and thermally induced martensitic transformations in Ni i-based shape memory alloys. *International Journal of Materials Research*, **2015**, 106, 1029-1039	0.5	16
320	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
319	Processing of NiTi shape memory sheets Microstructural heterogeneity and evolution of texture. *Journal of Alloys and Compounds*, **2015**, 651, 333-339	5.7	17
318	Microstructural evolution in a Ti Ta high-temperature shape memory alloy during creep. *International Journal of Materials Research*, **2015**, 106, 331-341	0.5	8
317	Transformation activity in ultrafine grained pseudoelastic NiTi wires during small amplitude loading/unloading experiments. *Journal of Alloys and Compounds*, **2015**, 651, 655-665	5.7	7
316	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
315	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
314	Modeling thermally induced martensitic transformations in nickel titanium shape memory alloys. *Continuum Mechanics and Thermodynamics*, **2015**, 27, 461-481	3.5	1
313	In vitro comparison of the sagittal split osteotomy with and without inferior border osteotomy. *Journal of Oral and Maxillofacial Surgery*, **2015**, 73, 316-23	1.8	7
312	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
311	Cyclic degradation of titanium tantalum high-temperature shape memory alloys the role of dislocation activity and chemical decomposition. *Functional Materials Letters*, **2015**, 08, 1550062	1.2	8
310	A quantitative metallographic assessment of the evolution of porosity during processing and creep in single crystal Ni-base super alloys. *Materialwissenschaft Und Werkstofftechnik*, **2015**, 46, 577-590	0.9	17

309	Influence of microstructure on macroscopic elastic properties and thermal expansion of nickel-base superalloys ERBO/1 and LEK94. *Materialwissenschaft Und Werkstofftechnik*, **2015**, 46, 563-576	0.9	25
308	Microstructure, Shape Memory Effect and Functional Stability of Ti67Ta33 Thin Films. *Advanced Engineering Materials*, **2015**, 17, 1425-1433	3.5	15
307	Variational prediction of the mechanical behavior of shape memory alloys based on thermal experiments. *Journal of the Mechanics and Physics of Solids*, **2015**, 80, 86-102	5	15
306	Thermal Stabilization of NiTiCuV Shape Memory Alloys: Observations During Elastocaloric Training. *Shape Memory and Superelasticity*, **2015**, 1, 132-141	2.8	61
305	On the identification of superdislocations in the γ′-phase of single-crystal Ni-base superalloys □An application of the LACBED method to complex microstructures. *Acta Materialia*, **2015**, 87, 34-44	8.4	11
304	Atomic layer-by-layer construction of Pd on nanoporous gold via underpotential deposition and displacement reaction. *RSC Advances*, **2015**, 5, 19409-19417	3.7	22
303	Damage evolution in pseudoelastic polycrystalline CoNiGa high-temperature shape memory alloys. *Journal of Alloys and Compounds*, **2015**, 633, 288-295	5.7	31
302	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
301	Advanced Scale Bridging Microstructure Analysis of Single Crystal Ni-Base Superalloys. *Advanced Engineering Materials*, **2015**, 17, 216-230	3.5	95
300	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
299	The evolution of tribolayers during high temperature sliding wear. *Wear*, **2014**, 315, 1-10	3.5	61
298	Direct microstructural evidence for the stress induced formation of martensite during nanonindentation of NiTi. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 591, 33-37	5.3	12
297	Spectroelectrochemical and morphological studies of the ageing of silver nanoparticles embedded in ultra-thin perfluorinated sputter deposited films. *Thin Solid Films*, **2014**, 571, 161-167	2.2	
296	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
295	Cyclic degradation mechanisms in aged FeNiCoAlTa shape memory single crystals. *Acta Materialia*, **2014**, 79, 126-137	8.4	45
294	Sudden stress-induced transformation events during nanoindentation of NiTi shape memory alloys. *Acta Materialia*, **2014**, 78, 144-160	8.4	32
293	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
292	Sigma phase evolution in CoReCr-based alloys at 1100□C. *Intermetallics*, **2014**, 48, 54-61	3.5	7

291	Orientation dependence of stress-induced martensite formation during nanoindentation in NiTi shape memory alloys. *Acta Materialia*, **2014**, 68, 19-31	8.4	27
290	Micromechanical investigations and modelling of a Copper–Antimony-Alloy under creep conditions. *Mechanics of Materials*, **2014**, 69, 41-62	3.3	9
289	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
288	Infrared transmission spectroscopy of charge carriers in self-assembled InAs quantum dots under surface electric fields. *Journal of Physics Condensed Matter*, **2014**, 26, 505801	1.8	4
287	On the functional degradation of binary titanium–tantalum high-temperature shape memory alloys – A new concept for fatigue life extension. *Functional Materials Letters*, **2014**, 07, 1450042	1.2	15
286	Ingot metallurgy and microstructural characterization of Ti–Ta alloys. *International Journal of Materials Research*, **2014**, 105, 156-167	0.5	22
285	Experimental Investigation and Numerical Simulation of the Mechanical and Thermal Behavior of a Superelastic Shape Memory Alloy Beam During Bending **2014**,		3
284	Micromechanical Modeling of Creep Damage in a Copper-antimony Alloy **2014**, 3, 21-26		6
283	On the electropolishing of NiTi braided stents – challenges and solutions. *Materialwissenschaft Und Werkstofftechnik*, **2014**, 45, 920-929	0.9	10
282	Large-scale synthesis and catalytic activity of nanoporous Cu–O system towards CO oxidation. *RSC Advances*, **2014**, 4, 65004-65011	3.7	17
281	Mesostructural Design and Manufacturing of Open-Pore Metal Foams by Investment Casting. *Advances in Materials Science and Engineering*, **2014**, 2014, 1-9	1.5	25
280	Comparative studies on the accumulation of strain and recovery ratio of Veriflex® , a shape-memory polymer for a high strain (?m = 210%): Atomic force microscopic experiments. *High Performance Polymers*, **2014**, 26, 20-26	1.6	2
279	Effect of ternary element addition on the corrosion behaviour of NiTi shape memory alloys. *Materials and Corrosion - Werkstoffe Und Korrosion*, **2014**, 65, 18-22	1.6	22
278	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
277	Microshear deformation of gold single crystals. *Acta Materialia*, **2014**, 62, 225-238	8.4	31
276	Interface reactions of Ag@TiO2 nanocomposite films. *Materials Chemistry and Physics*, **2014**, 145, 90-98	4.4	5
275	On the cyclic material stability of shape memory polymer. *Materialwissenschaft Und Werkstofftechnik*, **2013**, 44, 521-526	0.9	12
274	Characteristics of the stress-induced formation of R-phase in ultrafine-grained NiTi shape memory wire. *Journal of Alloys and Compounds*, **2013**, 579, 249-252	5.7	18

273	Bending rotation HCF testing of pseudoelastic Ni-Ti shape memory alloys. *Materialwissenschaft Und Werkstofftechnik*, **2013**, 44, 633-640	0.9	11
272	High temperature wear testing of a Ni-based superalloy pin on a cast iron disc. *Materialwissenschaft Und Werkstofftechnik*, **2013**, 44, 825-831	0.9	9
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