Thomas Niendorf

List of Publications by Year in Descending Order

257 papers	6,282 citations	40 h-index	72 g-index
269 ext. papers	7,619 ext. citations	3.8 avg, IF	6.31 L-index

#	Paper	IF	Citations
257	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
256	On the Impact of Build Envelope Sizes on E-PBF Processed Pure Iron. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **2022**, 53, 8	2.5	1
255	Oxide Modified Iron in Electron Beam Powder Bed Fusion From Processability to Corrosion Properties **2022**, 1, 31-53		0
254	On the impact of nanometric precipitates on the tensile deformation of superelastic Co49Ni21Ga30. *Acta Materialia*, **2022**, 230, 117835	8.4	
253	Microstructural and Mechanical Properties of AISI 4140 Steel Processed by Electron Beam Powder Bed Fusion Analyzed Using Miniature Samples **2022**, 296-311		1
252	Calibration and Validation of Micromagnetic Data for Non-Destructive Analysis of Near-Surface Properties after Hard Turning. *HTM - Journal of Heat Treatment and Materials*, **2022**, 77, 156-172	0.7	0
251	Measurement and simulation of residual stresses in laser welded CFRP/steel lap joints. *Composite Structures*, **2022**, 115687	5.3	1
250	Experimental Analysis of Residual Stresses in CFRPs through Hole-Drilling Method: The Role of Stacking Sequence, Thickness, and Defects. *Journal of Composites Science*, **2022**, 6, 138	3	
249	Influence of a remelt scan strategy on the microstructure and fatigue behaviour of additively manufactured biomedical Ti65Ta efficiently assessed using small scale specimens. *International Journal of Fatigue*, **2022**, 162, 106944	5	0
248	Novel austenitic Cr-Mn-Ni TWIP-steel with superior strength enabled by laser powder bed fusion On the role of substrate temperatures. *Additive Manufacturing Letters*, **2022**, 100065		0
247	Consequences of Deep Rolling at Elevated Temperature on Near-Surface and Fatigue Properties of High-Manganese TWIP Steel X40MnCrAl19-2. *Applied Sciences (Switzerland)*, **2021**, 11, 10406	2.6	0
246	A mechanical comparison of alpha and beta phase biomedical TiTa lattice structures. *Materials and Design*, **2021**, 212, 110220	8.1	2
245	Evaluation of extremely steep residual stress gradients based on a combined approach using laboratory-scale equipment.. *Journal of Applied Crystallography*, **2021**, 54, 1793-1798	3.8	2
244	On the low-cycle fatigue behavior of thermo-mechanically processed high-strength aluminum alloys. *International Journal of Fatigue*, **2021**, 156, 106676	5	5
243	On the Microstructural and Cyclic Mechanical Properties of Pure Iron Processed by Electron Beam Melting. *Advanced Engineering Materials*, **2021**, 23, 2100018	3.5	3
242	Characterization of Mechanical Properties, Macroscopic Deformation Behavior, and Microstructure of Functionally Graded 22MnB5 Steel. *Steel Research International*, **2021**, 92, 2000633	1.6	2
241	Tension-compression asymmetry of the superelastic behavior of high-strength [001]-oriented FeNiCoAlNb crystals. *Materials Letters*, **2021**, 289, 129395	3.3	2

240	On the reliability of residual stress measurements in unidirectional carbon fibre reinforced epoxy composites. *Polymer Testing*, **2021**, 97, 107146	4.5	7
239	On the influence of build orientation on properties of friction stir welded AlSi10Mg parts produced by selective laser melting. *Journal of Materials Research and Technology*, **2021**, 12, 1446-1460	5.5	5
238	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
237	Hot Work Tool Steel Processed by Laser Powder Bed Fusion: A Review on Most Relevant Influencing Factors. *Advanced Engineering Materials*, **2021**, 23, 2100049	3.5	5
236	Thermal Stability of Residual Stresses in Differently Deep Rolled Surface Layers of Steel SAE 1045. *Journal of Materials Engineering and Performance*, **2021**, 30, 6160-6166	1.6	
235	CuCrZr processed by laser powder bed fusion: Processability and influence of heat treatment on electrical conductivity, microstructure and mechanical properties. *Fatigue and Fracture of Engineering Materials and Structures*, **2021**, 44, 2570-2590	3	6
234	Shape Memory Effect and Superelasticity of [001]-Oriented FeNiCoAlNb Single Crystals Aged under and without Stress. *Metals*, **2021**, 11, 943	2.3	3
233	Plasma sprayed Lanthanum zirconate coating over additively manufactured carbon nanotube reinforced Ni-based Composite: Unique performance of thermal barrier coating system without bondcoat. *Applied Surface Science*, **2021**, 550, 149397	6.7	5
232	Overmoulding of Additively Manufactured Titanium Inserts Using Polyoxymethylene (POM): Evaluation of Bond Quality as a Function of Process Parameters. *Journal of Composites Science*, **2021**, 5, 159	3	
231	Influence of Deep Rolling and Induction Hardening on Microstructure Evolution of Crankshaft Sections made from 38MnSiVS5 and 42CrMo4. *HTM - Journal of Heat Treatment and Materials*, **2021**, 76, 175-194	0.7	3
230	Effects of Aging under Stress on Mechanical Properties and Microstructure of EN AW 7075 Alloy. *Metals*, **2021**, 11, 1142	2.3	2
229	Effect of Crystallographic Orientation and Grain Boundaries on Martensitic Transformation and Superelastic Response of Oligocrystalline FeMnAlNi Shape Memory Alloys. *Shape Memory and Superelasticity*, **2021**, 7, 373-382	2.8	1
228	Thermal stability, microstructure and texture evolution of thermomechanical processed AlCoCrFeNi2.1 eutectic high entropy alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 799, 140012	5.3	17
227	Adhesively bonded joints in components manufactured via selective laser melting. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, **2021**, 235, 518-526	2.3	4
226	On the Influence of Microstructure on the Corrosion Behavior of FeMnAlNi Shape Memory Alloy in 5.0 wt% NaCl Solution. *Advanced Engineering Materials*, **2021**, 23, 2000865	3.5	4
225	Functionally graded structures realized based on FeMnAlNi shape memory alloys. *Scripta Materialia*, **2021**, 194, 113619	5.6	5
224	Rubber-like behaviour and superelasticity of [001]-oriented FeNiCoAlNb single crystals containing γ- and β-phase particles. *Journal of Alloys and Compounds*, **2021**, 856, 158158	5.7	4
223	On the low-cycle fatigue response of CoCrNiFeMn high entropy alloy with ultra-fine grain structure. *Acta Materialia*, **2021**, 205, 116540	8.4	24

222	Failure mode map for E-PBF manufactured Ti6Al4V sandwich panels. *Engineering Failure Analysis*, **2021**, 121, 105159	3.2	2
221	Influence of spray trajectories on characteristics of cold-sprayed copper deposits. *Surface and Coatings Technology*, **2021**, 405, 126703	4.4	6
220	On the structural integrity of Fe-36Ni Invar alloy processed by selective laser melting. *Additive Manufacturing*, **2021**, 37, 101603	6.1	6
219	Prediction of near surface residual stress states for hard turned specimens using data driven nonlinear models. *Procedia CIRP*, **2021**, 101, 1-4	1.8	1
218	Laser Powder Bed Fusion Processing of Fe-Mn-Al-Ni Shape Memory Alloy□On the Effect of Elevated Platform Temperatures. *Metals*, **2021**, 11, 185	2.3	4
217	Measurement and Analysis of Residual Stresses and Warpage in Fiber Reinforced Plastic and Hybrid Components. *Metals*, **2021**, 11, 335	2.3	5
216	On the polarisation and Mott-Schottky characteristics of an Fe-Mn-Al-Ni shape-memory alloy and pure Fe in NaCl-free and NaCl-contaminated Ca(OH)2,sat solution□A comparative study. *Corrosion Science*, **2021**, 179, 109172	6.8	4
215	Tribological Performance of Additively Manufactured AISI H13 Steel in Different Surface Conditions. *Materials*, **2021**, 14,	3.5	4
214	Hot Work Tool Steel Processed by Laser Powder Bed Fusion: A Review on Most Relevant Influencing Factors. *Advanced Engineering Materials*, **2021**, 23, 2170027	3.5	1
213	Severe plastic deformation as a processing tool for strengthening of additive manufactured alloys. *Journal of Manufacturing Processes*, **2021**, 68, 788-795	5	6
212	Influence of Microstructure and Defects on Mechanical Properties of AISI H13 Manufactured by Electron Beam Powder Bed Fusion. *Journal of Materials Engineering and Performance*, **2021**, 30, 6895-6904	1.6	2
211	A pragmatic approach for assessment of laser-induced compressive residual stress profiles. *Journal of Manufacturing Processes*, **2021**, 68, 778-787	5	1
210	Damage tolerant design of additively manufactured metallic components subjected to cyclic loading: State of the art and challenges. *Progress in Materials Science*, **2021**, 121, 100786-100786	42.2	28
209	Additive Manufacturing of Compositionally-Graded AISI 316L to CoCrMo Structures by Directed Energy Deposition. *Crystals*, **2021**, 11, 1043	2.3	2
208	Novel prestressing applications in civil engineering structures enabled by Fe Mn Al Ni shape memory alloys. *Engineering Structures*, **2021**, 241, 112430	4.7	7
207	A Novel Approach to Robustly Determine Residual Stress in Additively Manufactured Microstructures Using Synchrotron Radiation. *Advanced Engineering Materials*, **2021**, 23, 2100184	3.5	2
206	In situ characterization of the functional degradation of a [001□] oriented Fe-Mn-Al-Ni single crystal under compression using acoustic emission measurements. *Acta Materialia*, **2021**, 117333	8.4	0
205	On the influence of ?-carbides on the low-cycle fatigue behavior of high-Mn light-weight steels. *International Journal of Fatigue*, **2021**, 150, 106327	5	4

204	On the fatigue behavior of differently deep rolled conditions of SAE 1045 in the very-high-cycle fatigue regime. *International Journal of Fatigue*, **2021**, 151, 106360	5	5
203	Soft-magnetic behavior of laser beam melted FeSi3 alloy with graded cross-section. *Journal of Materials Processing Technology*, **2021**, 296, 117183	5.3	1
202	On the influence of process interruptions during additive manufacturing on the fatigue resistance of AlSi12. *Additive Manufacturing*, **2021**, 47, 102346	6.1	2
201	Evolution of residual stress, microstructure and cyclic performance of the equiatomic high-entropy alloy CoCrFeMnNi after deep rolling. *International Journal of Fatigue*, **2021**, 153, 106513	5	3
200	The Effect of Fiber Waviness on the Residual Stress State and Its Prediction by the Hole Drilling Method in Fiber Metal Laminates: A Global-Local Finite Element Analysis. *Metals*, **2021**, 11, 156	2.3	1
199	The Influence of Heat Treatmnet and Stress State on Functional and Mechanical Properties of [001]-Oriented FeNiCoAlTi Single Crystals. *Russian Physics Journal*, **2021**, 63, 1596-1604	0.7	
198	Determination and Validation of Residual Stresses in CFRP/Metal Hybrid Components Using the Incremental Hole Drilling Method. *Journal of Composites Science*, **2020**, 4, 143	3	7
197	Influence of the Miniaturisation Effect on the Effective Stiffness of Lattice Structures in Additive Manufacturing. *Metals*, **2020**, 10, 1442	2.3	5
196	Excellent superelasticity in a Co-Ni-Ga high-temperature shape memory alloy processed by directed energy deposition. *Materials Research Letters*, **2020**, 8, 314-320	7.4	8
195	On the Impact of Texture and Grain Size on the Pseudoelastic Properties of Polycrystalline FeNiCoAlTi Alloy. *Shape Memory and Superelasticity*, **2020**, 6, 191-201	2.8	3
194	On the Influence of Surface Hardening Treatments on Microstructure Evolution and Residual Stress in Microalloyed Medium Carbon Steel. *Journal of Materials Engineering and Performance*, **2020**, 29, 3040-3054	1.6	4
193	Effects of Thermomechanical Processing on the Microstructure and Mechanical Properties of Fe-Based Alloys. *Journal of Materials Engineering and Performance*, **2020**, 29, 2274-2282	1.6	3
192	Fatigue Crack Initiation in the Iron-Based Shape Memory Alloy FeMnAlNiTi. *Shape Memory and Superelasticity*, **2020**, 6, 323-331	2.8	3
191	Influence of complex geometries on the properties of laser-hardened surfaces. *International Journal of Advanced Manufacturing Technology*, **2020**, 107, 4255-4260	3.2	3
190	Effect of Grain Statistics on Micromechanical Modeling: The Example of Additively Manufactured Materials Examined by Electron Backscatter Diffraction. *Advanced Engineering Materials*, **2020**, 22, 1901416	3.5	1
189	Microstructure and mechanical properties of laser surface treated 44MnSiVS6 microalloyed steel. *Optics and Laser Technology*, **2020**, 127, 106139	4.2	9
188	A micromechanical-based finite element simulation of process-induced residual stresses in metal-CFRP-hybrid structures. *Composite Structures*, **2020**, 238, 111926	5.3	14
187	Effect of Compositional Variation Induced by EBM Processing on Deformation Behavior and Phase Stability of Austenitic Cr-Mn-Ni TRIP Steel. *Jom*, **2020**, 72, 1052-1064	2.1	3

186	Induction Butt Welding Followed by Abnormal Grain Growth: A Promising Route for Joining of FeMnAlNi Tubes. *Shape Memory and Superelasticity*, **2020**, 6, 131-138	2.8	4
185	Functional microfibre reinforced ultra-high performance concrete (FMF-UHPC). *Cement and Concrete Research*, **2020**, 130, 105993	10.3	7
184	Damage Tolerance Evaluation of E-PBF-Manufactured Inconel 718 Strut Geometries by Advanced Characterization Techniques. *Materials*, **2020**, 13,	3.5	10
183	On the influence of in situ sound wave superposition on the microstructure of laser welded 7000 aluminum alloys. *Journal of Advanced Joining Processes*, **2020**, 1, 100013	2.1	2
182	On data-driven nonlinear uncertainty modeling: Methods and application for control-oriented surface condition prediction in hard turning. *TM Technisches Messen*, **2020**, 87, 732-741	0.7	2
181	Role of Post-Fabrication Heat Treatment on the Low-Cycle Fatigue Behavior of Electron Beam Melted Inconel 718 Superalloy **2020**, 465-483		3
180	On the Challenges toward Realization of Functionally Graded Structures by Electron Beam MeltingFe-Base Shape Memory Alloy and Stainless Steel **2020**, 20-33		1
179	Fretting Fatigue Characterization in Press-Fit Joints of AM Parts by X-Ray Tomography and Digital Image Correlation **2020**, 257-270		
178	Improvement of UHPFRC-Rheology by Using Circular Shape Memory Alloy Fibres. *RILEM Bookseries*, **2020**, 142-148	0.5	
177	Effect of and phase particles on the shape memory effect and superelasticity in [0 0 1]-oriented FeNiCoAlTi single crystals. *Materials Letters*, **2020**, 260, 126932	3.3	5
176	Effect of Friction Stir Processing on Microstructural, Mechanical, and Corrosion Properties of Al-Si12 Additive Manufactured Components. *Metals*, **2020**, 10, 85	2.3	14
175	Additive Manufacturing of Co-Ni-Ga High-Temperature Shape Memory Alloy: Processability and Phase Transformation Behavior. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2020**, 51, 1056-1061	2.3	10
174	Influence of specimen position on the build platform on the mechanical properties of as-built direct aged electron beam melted Inconel 718 alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 772, 138785	5.3	13
173	Low-cycle fatigue performance of remelted laser powder bed fusion (L-PBF) biomedical Ti25Ta. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2020**, 798, 140228	5.3	9
172	Effect of Fibre Material and Fibre Roughness on the Pullout Behaviour of Metallic Micro Fibres Embedded in UHPC. *Materials*, **2020**, 13,	3.5	8
171	Performance of Thermo-Mechanically Processed AA7075 Alloy at Elevated TemperaturesFrom Microstructure to Mechanical Properties. *Metals*, **2020**, 10, 884	2.3	16
170	Separation and reclamation of automotive hybrid structures made of metal and fibre-reinforced plastic. *Waste Management*, **2020**, 115, 74-82	8.6	2
169	Microstructural and mechanical properties of dissimilar nitinol and stainless steel wire joints produced by micro electron beam welding without filler material. *Welding in the World, Le Soudage Dans Le Monde*, **2020**, 64, 2159-2168	1.9	0

168	Effect of Tool Temperature on Mechanical Properties and Microstructure of Thermo-Mechanically Processed AA6082 and AA7075 Aluminum Alloys. *HTM - Journal of Heat Treatment and Materials*, **2020**, 75, 177-191	0.7	11
167	Dynamic Tensile Deformation of High Strength Aluminum Alloys Processed Following Novel Thermomechanical Treatment Strategies. *Advanced Engineering Materials*, **2020**, 22, 2070033	3.5	1
166	Investigation of residual stresses in polypropylene using hot plate welding. *Welding in the World, Le Soudage Dans Le Monde*, **2020**, 64, 1671-1680	1.9	2
165	Superelasticity and Shape Memory Effect Under Tension and Compression in the [001]-Oriented Single Crystals of Non-Equiatomic FeNiCoAlTi High-Entropy Alloy. *Russian Physics Journal*, **2020**, 62, 2296-2305	0.7	1
164	Cyclodextrin as sizing for carbon fibers: new bonding mechanism improves adhesion in carbon fiber reinforced epoxy resin. *Heliyon*, **2020**, 6, e03766	3.6	2
163	Dynamic Tensile Deformation of High Strength Aluminum Alloys Processed Following Novel Thermomechanical Treatment Strategies. *Advanced Engineering Materials*, **2020**, 22, 2000193	3.5	7
162	FeMnNiAl Iron-Based Shape Memory Alloy: Promises and Challenges. *Shape Memory and Superelasticity*, **2019**, 5, 263-277	2.8	22
161	Tailoring the Microstructure in Polycrystalline CoNiGa High-Temperature Shape Memory Alloys by Hot Extrusion. *Shape Memory and Superelasticity*, **2019**, 5, 84-94	2.8	7
160	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
159	Cyclic deformation response of ultra-fine grained titanium at elevated temperatures. *International Journal of Fatigue*, **2019**, 122, 228-239	5	8
158	Effect of notches on the deformation behavior and damage evolution of additively manufactured 316L specimens under uniaxial quasi-static and cyclic loading. *International Journal of Fatigue*, **2019**, 127, 175-189	5	13
157	Influence of Microstructural Features on the Strain Hardening Behavior of Additively Manufactured Metallic Components. *Advanced Engineering Materials*, **2019**, 21, 1900275	3.5	10
156	Promoting abnormal grain growth in Fe-based shape memory alloys through compositional adjustments. *Nature Communications*, **2019**, 10, 2337	17.4	40
155	3D hybrid-material processing in selective laser melting: implementation of a selective coating system. *Progress in Additive Manufacturing*, **2019**, 4, 399-409	5	6
154	Pathways Towards Grain Boundary Engineering for Improved Structural Performance in Polycrystalline CoNiGa Shape Memory Alloys. *Shape Memory and Superelasticity*, **2019**, 5, 73-83	2.8	7
153	On the influence of overloads on the fatigue performance of deep rolled steel SAE 1045. *International Journal of Fatigue*, **2019**, 126, 221-230	5	7
152	Effect of nanometric γ′-particles on the stress-induced martensitic transformation in <001>-oriented Co49Ni21Ga30 shape memory alloy single crystals. *Scripta Materialia*, **2019**, 168, 42-46	5.6	5
151	Additive Manufacturing of a Steel–Ceramic Multi-Material by Selective Laser Melting. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **2019**, 50, 1042-1051	2.5	39

150	Influence of Cr Alloying (1.5 to 5 at.%) on Martensitic Phase Transformation Temperatures in Co-Ni-Ga-Cr Thin Films. *Shape Memory and Superelasticity*, **2019**, 5, 106-112	2.8	1
149	Residual Stress Analysis on Thin Metal Sheets Using the Incremental Hole Drilling Method – Fundamentals and Validation. *Experimental Techniques*, **2019**, 43, 65-79	1.4	8
148	Cladded steel for clutch disc carriers. *Forschung Im Ingenieurwesen/Engineering Research*, **2019**, 83, 259-265	0.8	1
147	On the Effect of Quenching on Postweld Heat Treatment of Friction-Stir-Welded Aluminum 7075 Alloy. *Journal of Materials Engineering and Performance*, **2019**, 28, 5255-5265	1.6	16
146	On the low-cycle fatigue behavior of friction stir welded AlSi12 parts produced by selective laser melting. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 764, 138189	5.3	11
145	On the impact of deep rolling at different temperatures on the near surface microstructure and residual stress state of steel AISI 304. *Materialwissenschaft Und Werkstofftechnik*, **2019**, 50, 788-795	0.9	4
144	Impact of the scanning strategy on the mechanical behavior of 316L steel synthesized by selective laser melting. *Journal of Manufacturing Processes*, **2019**, 45, 255-261	5	46
143	Damage tolerant design by microstructural gradation – Influence of processing parameters and build orientation on crack growth within additively processed 316L. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 764, 138186	5.3	14
142	On the Evolution of Residual Stresses, Microstructure and Cyclic Performance of High-Manganese Austenitic TWIP-Steel after Deep Rolling. *Metals*, **2019**, 9, 825	2.3	7
141	Effect of grain size on the very high cycle fatigue behavior and notch sensitivity of titanium. *Theoretical and Applied Fracture Mechanics*, **2019**, 104, 102362	3.7	12
140	Hochtemperaturlegierungen **2019**, 333-496		
139	A Screening Approach for Rapid Qualitative Evaluation of Residual-Stress States – Application to Laser-Hardened Microalloyed Steel. *HTM - Journal of Heat Treatment and Materials*, **2019**, 74, 151-163	0.7	3
138	Shape memory effect and superelasticity in high-strength FeNiCoAlTi single crystals hardened by nanoparticles **2019**,		1
137	On Nonlinear Empirical Modeling of Residual Stress Profiles in Hard Turning **2019**,		4
136	Load distribution and damage evolution in bending and stretch dominated Ti-6Al-4V cellular structures processed by selective laser melting. *International Journal of Fatigue*, **2019**, 121, 219-228	5	11
135	On the microstructural and functional stability of Fe-Mn-Al-Ni at ambient and elevated temperatures. *Scripta Materialia*, **2019**, 162, 442-446	5.6	24
134	Direct microstructure design by hot extrusion – High-temperature shape memory alloys with bamboo-like microstructure. *Scripta Materialia*, **2019**, 162, 127-131	5.6	13
133	Consequences of deep rolling on the fatigue behavior of steel SAE 1045 at high loading amplitudes. *International Journal of Fatigue*, **2019**, 118, 192-201	5	12

132	In Situ Neutron Diffraction Analyzing Stress-Induced Phase Transformation and Martensite Elasticity in [001]-Oriented Co49Ni21Ga30 Shape Memory Alloy Single Crystals. *Shape Memory and Superelasticity*, **2018**, 4, 61-69	2.8	7
131	A heat treatable TiB2/Al-3.5Cu-1.5Mg-1Si composite fabricated by selective laser melting: Microstructure, heat treatment and mechanical properties. *Composites Part B: Engineering*, **2018**, 147, 162-168	10	90
130	On the effect of internal channels and surface roughness on the high-cycle fatigue performance of Ti-6Al-4V processed by SLM. *Materials and Design*, **2018**, 143, 1-11	8.1	64
129	Design of novel materials for additive manufacturing - Isotropic microstructure and high defect tolerance. *Scientific Reports*, **2018**, 8, 1298	4.9	51
128	Unexpected cyclic stress-strain response of dual-phase high-entropy alloys induced by partial reversibility of deformation. *Scripta Materialia*, **2018**, 143, 63-67	5.6	46
127	Magnetic pulse controlled microstructure development in Co49Ni21Ga30 single crystals. *Materials Science and Technology*, **2018**, 34, 1954-1964	1.5	
126	Inline additively manufactured functionally graded multi-materials: microstructural and mechanical characterization of 316L parts with H13 layers. *Progress in Additive Manufacturing*, **2018**, 3, 221-231	5	21
125	A Novel Approach for Monitoring Plastic Flow Localization during In-Situ Sem Testing of Small-Scale Samples. *Experimental Techniques*, **2018**, 42, 177-189	1.4	2
124	Effect of Post-Process Machining on Surface Properties of Additively Manufactured H13 Tool Steel. *HTM - Journal of Heat Treatment and Materials*, **2018**, 73, 173-186	0.7	18
123	On the Tensile Properties of Inconel 718 Fabricated by EBM for As-Built and Heat-Treated Components. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **2018**, 49, 2969-2974	2.5	10
122	On the reliability of residual stress measurements in polycarbonate samples by the hole drilling method. *Polymer Testing*, **2018**, 71, 329-334	4.5	13
121	Martensite aging in <001> oriented Co49Ni21Ga30 single crystals in tension. *Functional Materials Letters*, **2018**, 11, 1850024	1.2	9
120	Cyclic deformation behavior of a damage tolerant CrMnNi TRIP steel produced by electron beam melting. *International Journal of Fatigue*, **2018**, 114, 262-271	5	17
119	Fatigue life of additively manufactured Ti6Al4V in the very high cycle fatigue regime. *International Journal of Fatigue*, **2017**, 94, 236-245	5	223
118	Analysis of residual stress profiles in plastic materials using the hole drilling method Influence factors and practical aspects. *Polymer Testing*, **2017**, 59, 29-37	4.5	21
117	Structural components manufactured by Selective Laser Melting and Investment Casting Impact of the process route on the damage mechanism under cyclic loading. *Journal of Materials Processing Technology*, **2017**, 248, 130-142	5.3	25
116	Corrosion properties of bioresorbable FeMn-Ag alloys prepared by selective laser melting. *Materials and Corrosion - Werkstoffe Und Korrosion*, **2017**, 68, 1028-1036	1.6	26
115	On the Impact of Additive Manufacturing on Microstructural and Mechanical Properties of Stainless Steel and Ni-base Alloys. *BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik*, **2017**, 162, 199-202	0.6	10

114	Crashworthiness and numerical simulation of hybrid aluminium-CFRP tubes under axial impact. *Thin-Walled Structures*, **2017**, 117, 1-9	4.7	85
113	Room temperature superelastic responses of NiTi alloy treated by two distinct thermomechanical processing schemes. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 684, 303-311	5.3	17
112	Cyclic Degradation Behavior of (langle 001 rangle)-Oriented FeMnAlNi Single Crystals in Tension. *Shape Memory and Superelasticity*, **2017**, 3, 335-346	2.8	13
111	Time-of-Flight Three Dimensional Neutron Diffraction in Transmission Mode for Mapping Crystal Grain Structures. *Scientific Reports*, **2017**, 7, 9561	4.9	26
110	Pulsed magnetic field-induced changes in the meso- and nanostructure of Co49Ni21Ga30 martensite. *Functional Materials Letters*, **2017**, 10, 1750044	1.2	3
109	Duplex stainless steel fabricated by selective laser melting - Microstructural and mechanical properties. *Materials and Design*, **2017**, 133, 136-142	8.1	80
108	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
107	Electron beam welding of FeMnAlNi shape memory alloy: Microstructure evolution and shape memory response. *Functional Materials Letters*, **2017**, 10, 1750043	1.2	10
106	On the effect of titanium on quenching sensitivity and pseudoelastic response in Fe-Mn-Al-Ni-base shape memory alloy. *Scripta Materialia*, **2017**, 126, 20-23	5.6	39
105	Materials and process engineering aspects of warm deep rolling. *International Journal of Microstructure and Materials Properties*, **2017**, 12, 230	0.4	3
104	Prozessintegration von induktiver W□rmebehandlung und Festwalzen □sichere und zuverl□ssige Komponenten mit hoher Schwingfestigkeit. *HTM - Journal of Heat Treatment and Materials*, **2017**, 72, 10-18	0.7	3
103	Modelling the Constitutive Behaviour of Martensite and Austenite in Shape Memory Alloys Using Closed-Form Analytical Continuous Equations. *Computational Methods in Applied Sciences (Springer)*, **2017**, 41-66	0.4	1
102	Materials and process engineering aspects of warm deep rolling. *International Journal of Microstructure and Materials Properties*, **2017**, 12, 230	0.4	2
101	Energy Resolved Residual Stress Analysis with Laboratory X-Ray Sources. *HTM - Journal of Heat Treatment and Materials*, **2017**, 72, 115-121	0.7	3
100	Bend Straightening of a Carbonitrided Gear Shaft □Consequences on Residual Stresses and Retained Austenite near the Surface*. *HTM - Journal of Heat Treatment and Materials*, **2017**, 72, 145-153	0.7	1
99	Effect of grain size on the superelastic response of a FeMnAlNi polycrystalline shape memory alloy. *Scripta Materialia*, **2016**, 125, 68-72	5.6	39
98	Superior creep strength of a nickel-based superalloy produced by selective laser melting. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 674, 299-307	5.3	116
97	Selektives Laserschmelzen f□ Leichtbau mit Designfreiheit. *Lightweight Design*, **2016**, 9, 82-87	0.1	2

96	Cyclic Degradation of Co49Ni21Ga30 High-Temperature Shape Memory Alloy: On the Roles of Dislocation Activity and Chemical Order. *Shape Memory and Superelasticity*, **2016**, 2, 37-49	2.8	20
95	Influence of surface pre-treatments on the high-cycle fatigue behavior of Ti6Al4V : From anodizing to laser-assisted techniques. *International Journal of Fatigue*, **2016**, 91, 195-203	5	11
94	Cyclic degradation in bamboo-like FeMnAlNi shape memory alloys : The role of grain orientation. *Scripta Materialia*, **2016**, 114, 156-160	5.6	46
93	Microstructural design of Ni-base alloys for high-temperature applications: impact of heat treatment on microstructure and mechanical properties after selective laser melting. *Progress in Additive Manufacturing*, **2016**, 1, 141-151	5	58
92	On the microstructural and mechanical properties of post-treated additively manufactured Inconel 718 superalloy under quasi-static and cyclic loading. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 669, 246-258	5.3	130
91	Microstructural Evolution and Functional Properties of Fe-Mn-Al-Ni Shape Memory Alloy Processed by Selective Laser Melting. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2016**, 47, 2569-2573	2.3	30
90	Labelling additively manufactured parts by microstructural gradation : advanced copy-proof design. *Rapid Prototyping Journal*, **2016**, 22, 630-635	3.8	11
89	Martensite aging : Avenue to new high temperature shape memory alloys. *Acta Materialia*, **2015**, 89, 298-304	8.4	45
88	Microstructural Characterization and Mechanical Performance of Hot Work Tool Steel Processed by Selective Laser Melting. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **2015**, 46, 545-549	2.5	102
87	Martensite stabilization in shape memory alloys : Experimental evidence for short-range ordering. *Materials Letters*, **2015**, 159, 16-19	3.3	31
86	On the effect of gamma phase formation on the pseudoelastic performance of polycrystalline FeMnAlNi shape memory alloys. *Scripta Materialia*, **2015**, 108, 23-26	5.6	68
85	Fatigue Strength Prediction for Titanium Alloy TiAl6V4 Manufactured by Selective Laser Melting. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2015**, 46, 3816-3823	2.3	84
84	Influence of Short Austenitization Treatments on the Mechanical Properties of Low-Alloy Steels for Hot Forming Applications. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2015**, 46, 3199-3207	2.3	18
83	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
82	Processing of New Materials by Additive Manufacturing: Iron-Based Alloys Containing Silver for Biomedical Applications. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2015**, 46, 2829-2833	2.3	39
81	Handbuch Hochtemperatur-Werkstofftechnik **2015**,		13
80	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
79	Property Optimization for TWIP Steels : Effect of Pre-deformation Temperature on Fatigue Properties. *Materials Today: Proceedings*, **2015**, 2, S681-S685	1.4	5

78	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
77	Functional encapsulation of laser melted Inconel 718 by Arc-PVD and HVOF for post compacting by hot isostatic pressing. *Powder Metallurgy*, **2015**, 58, 259-264	1.9	17
76	Damage evolution in pseudoelastic polycrystalline CoNiGa high-temperature shape memory alloys. *Journal of Alloys and Compounds*, **2015**, 633, 288-295	5.7	31
75	Cyclic degradation mechanisms in aged FeNiCoAlTa shape memory single crystals. *Acta Materialia*, **2014**, 79, 126-137	8.4	45
74	Influence of precipitates on low-cycle fatigue and crack growth behavior in an ultrafine-grained aluminum alloy. *Acta Materialia*, **2014**, 80, 250-263	8.4	41
73	On the fatigue properties of metals manufactured by selective laser melting – The role of ductility. *Journal of Materials Research*, **2014**, 29, 1911-1919	2.5	170
72	Lattice Structures Manufactured by SLM: On the Effect of Geometrical Dimensions on Microstructure Evolution During Processing. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **2014**, 45, 1181-1185	2.5	57
71	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
70	Low-Cycle Fatigue Behavior of TWIP Steel - Effect of Grain Size. *Advanced Materials Research*, **2014**, 891-892, 1603-1608	0.5	4
69	Functionally Graded Alloys Obtained by Additive Manufacturing. *Advanced Engineering Materials*, **2014**, 16, 857-861	3.5	77
68	Hochfeste Strukturkomponenten mittels Kryoformen. *ATZ Automobiltechnische Zeitschrift*, **2014**, 116, 38-43	0.1	
67	High-strength Structural Components by Cryo-forming. *ATZ Worldwide*, **2014**, 116, 24-27	0.1	
66	Thermal cycling behavior of an aged FeNiCoAlTa single-crystal shape memory alloy. *Scripta Materialia*, **2014**, 81, 28-31	5.6	24
65	On the fatigue crack growth behavior in 316L stainless steel manufactured by selective laser melting. *Engineering Fracture Mechanics*, **2014**, 120, 15-25	4.2	370
64	Highly Anisotropic Steel Processed by Selective Laser Melting. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **2013**, 44, 794-796	2.5	289
63	The Deformation Behavior of Functionally Graded TWIP Steel under Monotonic Loading at Ambient Temperature. *Materials Research Letters*, **2013**, 1, 96-101	7.4	7
62	Inconel 939 processed by selective laser melting: Effect of microstructure and temperature on the mechanical properties under static and cyclic loading. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 588, 188-195	5.3	151
61	Surface strain evolution of ultrafine-grained aluminum alloy laminates under tension – Microscale plastic instabilities and the Portevin–le Chatelier effect. *Scripta Materialia*, **2013**, 68, 809-812	5.6	9

60	Steel showing twinning-induced plasticity processed by selective laser melting – An additively manufactured high performance material. *Materials Characterization*, **2013**, 85, 57-63	3.9	40
59	Growth of cubic GaN on 3C-SiC/Si (001) nanostructures. *Journal of Crystal Growth*, **2013**, 378, 291-294	1.6	9
58	Failure Stress of Epitaxial Silicon Thin Films. *Energy Procedia*, **2013**, 38, 926-932	2.3	3
57	Comparison of the monotonic and cyclic mechanical properties of ultrafine-grained low carbon steels processed by continuous and conventional equal channel angular pressing. *Materials & Design*, **2013**, 47, 138-142		10
56	On the mechanical behaviour of titanium alloy TiAl6V4 manufactured by selective laser melting: Fatigue resistance and crack growth performance. *International Journal of Fatigue*, **2013**, 48, 300-307	5	822
55	Additively manufactured cellular structures: Impact of microstructure and local strains on the monotonic and cyclic behavior under uniaxial and bending load. *Journal of Materials Processing Technology*, **2013**, 213, 1558-1564	5.3	118
54	In-situ characterization of the damage evolution in thin polyelectrolyte films on TWIP steel substrates. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 566, 82-89	5.3	5
53	Surface hardening of biocompatible ultrafine-grained niobium zirconium alloy by two-stage oxidation treatment. *Journal of Materials Science*, **2013**, 48, 4549-4556	4.3	3
52	Tension - Compression Asymmetry in Co49Ni21Ga30 High-Temperature Shape Memory Alloy Single Crystals. *Materials Science Forum*, **2013**, 738-739, 82-86	0.4	9
51	Anisotropy of ultrafine-grained alloys under impact loading: The case of biomedical niobium–zirconium. *Scripta Materialia*, **2012**, 66, 435-438	5.6	14
50	Corrosion fatigue behavior of a biocompatible ultrafine-grained niobium alloy in simulated body fluid. *Journal of the Mechanical Behavior of Biomedical Materials*, **2012**, 5, 181-92	4.1	49
49	Formability of thermally cured and of nanoclay-reinforced polyelectrolyte films on NiTi substrates. *Journal of Materials Science*, **2012**, 47, 151-161	4.3	5
48	Microstructure – deformation relationships in fine grained high manganese TWIP steel – the role of local texture. *International Journal of Materials Research*, **2012**, 103, 12-16	0.5	8
47	Microstructural stability of ultrafine-grained niobium–zirconium alloy at elevated temperatures. *Journal of Alloys and Compounds*, **2012**, 517, 61-68	5.7	11
46	Deformation mechanisms in high-manganese steels showing twinning-induced plasticity: Fine-grained material and single crystals at ambient and cryogenic temperatures. *Scripta Materialia*, **2012**, 67, 875-878	5.6	14
45	Martensitic Transformation in Ultrafine-Grained Stainless Steel AISI 304L Under Monotonic and Cyclic Loading. *Metals*, **2012**, 2, 56-64	2.3	10
44	Formation of defects in cubic GaN grown on nano-patterned 3C-SiC (001). *Physica Status Solidi C: Current Topics in Solid State Physics*, **2012**, 9, 1028-1031		4
43	Multi-phase microstructure design of a low-alloy TRIP-assisted steel through a combined computational and experimental methodology. *Acta Materialia*, **2012**, 60, 3022-3033	8.4	56

42	On the low-cycle fatigue response of pre-strained austenitic Fe61Mn24Ni6.5Cr8.5 alloy showing TWIP effect. *International Journal of Fatigue*, **2012**, 40, 51-60	5	51
41	The Role of Notches on Fatigue Life of TWIP Steel in the HCF Regime. *Materials Science Forum*, **2012**, 706-709, 2205-2210	0.4	5
40	CYCLIC DEFORMATION BEHAVIOR OF AGED FeNiCoAlTa SINGLE CRYSTALS. *Functional Materials Letters*, **2012**, 05, 1250045	1.2	25
39	In situ characterization of the deformation and failure behavior of non-stochastic porous structures processed by selective laser melting. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2011**, 528, 7962-7967	5.3	146
38	In situ characterization of martensite variant formation in nickel□titanium shape memory alloy under biaxial loading. *Scripta Materialia*, **2011**, 65, 915-918	5.6	16
37	High-resolution in-situ characterization of the surface evolution of a polycrystalline NiTi SMA-alloy under pseudoelastic deformation. *Materials Characterization*, **2011**, 62, 298-303	3.9	22
36	Superior fatigue crack growth resistance, irreversibility, and fatigue crack growth□microstructure relationship of nanocrystalline alloys. *Acta Materialia*, **2011**, 59, 7340-7355	8.4	53
35	Effect of internal oxidation on wear behavior of ultrafine-grained Nb□r. *Acta Materialia*, **2011**, 59, 7683-7694	8.4	28
34	Experimental and Numerical Investigation of the Role of Grain Boundary Misorientation Angle on the Dislocation□Grain Boundary Interactions. *Advanced Engineering Materials*, **2011**, 13, 281-287	3.5	24
33	Fatigue Damage Evolution in Ultrafine-Grained Interstitial-Free Steel. *Advanced Engineering Materials*, **2011**, 13, 275-280	3.5	8
32	A comprehensive evaluation of parameters governing the cyclic stability of ultrafine-grained FCC alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2011**, 528, 6345-6355	5.3	14
31	Anti-phase domains in cubic GaN. *Journal of Applied Physics*, **2011**, 110, 123512	2.5	24
30	Handbuch Hochtemperatur- Werkstofftechnik **2011**,		68
29	On the Fatigue Crack Growth in High-Manganese Austenitic TWIP Steel - Influence of the Microstructure **2010**, 55-66		3
28	Grain boundary characterization and energetics of superalloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2010**, 527, 7115-7125	5.3	73
27	On the fatigue crack growth□microstructure relationship in ultrafine-grained interstitial-free steel. *Journal of Materials Science*, **2010**, 45, 4813-4821	4.3	50
26	On the coupled temperature□strain rate sensitivity of ultrafine-grained interstitial-free steel. *Scripta Materialia*, **2010**, 63, 544-547	5.6	5
25	Cyclic behavior and microstructural stability of ultrafine-grained AA6060 under strain-controlled fatigue. *Procedia Engineering*, **2010**, 2, 2199-2208		9

24	Three-dimensional modeling of the grain boundary misorientation angle distribution based on two-dimensional experimental texture measurements. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2010**, 527, 5604-5612	5.3	18
23	Fatigue crack growth□Microstructure relationships in a high-manganese austenitic TWIP steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2010**, 527, 2412-2417	5.3	72
22	Charakterisierung der Sch□digungsentwicklung in ultrafeink□nigem IF Stahl mittels digitaler Bildkorrelation*. *Materialpruefung/Materials Testing*, **2010**, 52, 27-35	1.9	1
21	The role of grain size and distribution on the cyclic stability of titanium. *Scripta Materialia*, **2009**, 60, 344-347	3.7	27
20	Cyclic stability of ultrafine-grained interstitial-free steel at elevated temperatures. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2009**, 503, 160-162	5.3	13
19	Monitoring the fatigue-induced damage evolution in ultrafine-grained interstitial-free steel utilizing digital image correlation. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2009**, 517, 225-234	5.3	38
18	The role of monotonic pre-deformation on the fatigue performance of a high-manganese austenitic TWIP steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2009**, 499, 518-524	5.3	101
17	Early detection of crack initiation sites in TiAl alloys during low-cycle fatigue at high temperatures utilizing digital image correlation. *International Journal of Materials Research*, **2009**, 100, 603-608	0.5	14
16	Improvement of the fatigue performance of an ultrafine-grained Nb□Zr alloy by nano-sized precipitates formed by internal oxidation. *Scripta Materialia*, **2008**, 58, 571-574	5.6	22
15	The Effect of Texture on the Fatigue Properties of Ultrafine-Grained Interstitial-Free Steel. *Materials Science Forum*, **2008**, 584-586, 864-869	0.4	2
14	On the Cyclic Stability and Fatigue Performance of Ultrafine-Grained Interstitial-Free Steel under Mean Stress. *Key Engineering Materials*, **2008**, 378-379, 39-52	0.4	9
13	The role of heat treatment on the cyclic stress□train response of ultrafine-grained interstitial-free steel. *International Journal of Fatigue*, **2008**, 30, 426-436	5	42
12	Microstructure□echanical property relationships in ultrafine-grained NbZr. *Acta Materialia*, **2007**, 55, 6596-6605	8.4	47
11	On the Microstructural Stability of Ultrafine-Grained Interstitial-Free Steel under Cyclic Loading. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2007**, 38, 1946-1955	2.3	45
10	On the fatigue behavior of ultrafine-grained interstitial-free steel. *International Journal of Materials Research*, **2006**, 97, 1328-1336	0.5	49
9	Application and potential of shape memory alloys for dowel-type connections in timber structures. *Wood Material Science and Engineering*,1-12	1.9	1
8	Processing effects on tensile superelastic behaviour of Fe43.5Mn34Al15 □ XNi7.5?X shape memory alloys. *IOP Conference Series: Materials Science and Engineering*,591, 012026	0.4	
7	Laser Metal Deposition of Fe- and Co-Based Shape-Memory Alloys. *Advanced Materials Research* ,1161, 105-112	0.5	1

6	Enhanced corrosion resistance of adhesive/galvanised steel interfaces by nanocrystalline ZnO thin film deposition and molecular adhesion promoting films1-21		3
5	Laser Beam Melting of H13 Tool Steel: From the Evolution of Microstructure to Process Simulation. *SSRN Electronic Journal*,	1	1
4	On the Impact of Additive Manufacturing Processes on the Microstructure and Magnetic Properties of CoNiGa Shape Memory Heusler Alloys. *Advanced Engineering Materials*,2200069	3.5	3
3	Residual stresses in ultrafine-grained laminated metal composites analyzed by X-ray diffraction and the hole drilling method. *Advanced Engineering Materials*,	3.5	1
2	Assessment and Validation of Incremental Hole-Drilling Calculation Methods for Residual Stress Determination in Fiber-Metal Laminates. *Experimental Mechanics*,1	2.6	1
1	On the Friction Stir Processing of Additive-Manufactured 316L Stainless Steel. *Advanced Engineering Materials*,2200384	3.5	1