Martina Zimmermann

List of Publications by Year
in descending order

69	860	516215 16	525886 27
papers	citations	h-index	g-index

75	75	75	621
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Design procedure for triply periodic minimal surface based biomimetic scaffolds. Journal of the Mechanical Behavior of Biomedical Materials, 2022, 126, 104871.	1.5	24
2	Controlling the Youngâ€™s modulus of a ÃŸ-type Ti-Nb alloy via strong texturing by LPBF. Materials and Design, 2022, 216, 110516.	3.3	27
3	Thermo-Electro-Mechanical Characterization of PDMS-Based Dielectric Elastomer Actuators. Materials, 2022, 15, 221.	1.3	6
4	VHCF Behavior of Inconel 718 in Different Heat Treatment Conditions in a Hot Air Environment. Metals, 2022, 12, 1062.	1.0	1
5	Improving and monitoring the magnetic pulse welding process between dissimilar metals. Welding in the World, Le Soudage Dans Le Monde, 2021, 65, 199-209.	1.3	7
6	Analysis of the remote laser cutting process induced damage in carbon fibre reinforced polymers with cutting process simulations. Proceedings in Applied Mathematics and Mechanics, 2021, 20, e202000098.	0.2	1
7	Melt Spinning of Highly Stretchable, Electrically Conductive Filament Yarns. Polymers, 2021, 13, 590.	2.0	19
8	X-ray computer tomography (XCT) of fatigue damage in laser-machined versus milled carbon fiber reinforced polymer matrix composites. Engineering Fracture Mechanics, 2021, 252, 107820.	2.0	6
9	Analysis of the remote laser cutting process induced damage in carbon fibre reinforced polymers. Proceedings in Applied Mathematics and Mechanics, 2021, 21, .	0.2	0
10	Alloy Design and Microstructure Evolution in the AlxCoCrFeNi Alloy System Synthesized by Laser Metal Deposition. Frontiers in Materials, 2020, 7, .	1.2	13
11	A Biomimetic Fish Fin-Like Robot Based on Textile Reinforced Silicone. Micromachines, 2020, 11, 298.	1.4	28
12	Mechanical performance and corrosion behaviour of Zr-based bulk metallic glass produced by selective laser melting. Materials and Design, 2020, 189, 108532.	3.3	48
13	A Worm-Like Biomimetic Crawling Robot Based on Cylindrical Dielectric Elastomer Actuators. Frontiers in Robotics and AI, 2020, 7, 9.	2.0	32
14	Influence of the edge quality to the water sorption of remote laser and mechanically cut carbon fibre reinforced polymer. Technologies for Lightweight Structures, 2020, 3, 34-41.	0.1	2
15	Mechanical Properties of Remote-Laser Cut CFRP and Thermographic Laser-Process Monitoring. Materials Sciences and Applications, 2020, 11, 560-575.	0.3	1
16	Near-threshold crack extension mechanisms in an aluminum alloy studied by SEM and X-ray tomography. International Journal of Fatigue, 2019, 119, 102-111.	2.8	9
17	Fatigue Behavior of Non-Optimized Laser-Cut Medical Grade Ti-6Al-4V-ELI Sheets and the Effects of Mechanical Post-Processing. Metals, 2019, 9, 843.	1.0	9
18	Cyclic deformation characteristics of the metastable Î²-type Tiâ€“40Nb alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 761, 137966.	2.6	16

#	Article	IF	Citations
19	Influence of Microstructural Inhomogeneities on the Fatigue Crack Growth Behavior Under Very Low Amplitudes for Two Different Aluminum Alloys. Structural Integrity, 2019, , 303-310.	0.8	1
20	Numerical analysis of the thermally induced damage in remote laser cut carbon fibre reinforced polymers. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900505.	0.2	2
21	Influence of rolling texture on near-threshold crack extension behavior in aluminum alloy EN AW-6082. Materialpruefung/Materials Testing, 2019, 61, 309-316.	0.8	0
22	Thermomechanical processing of In-containing Î²-type Ti-Nb alloys. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 79, 283-291.	1.5	17
23	Characterization of the Long Crack Propagation Behaviour in a Hardenable Aluminium Alloy in Very High Cycle Fatigue Regime. Procedia Structural Integrity, 2018, 13, 590-595.	0.3	2
24	Simulation of the VHCF deformation of austenitic stainless steels and its effect on the resonant behaviour. , 2018, , 73-94.		1
25	On sample size effects in fracture toughness determination of Bulk Metallic Glasses. Engineering Fracture Mechanics, 2018, 202, 500-507.	2.0	7
26	Understanding the near-threshold crack growth behavior in an aluminum alloy by x-ray tomography. MATEC Web of Conferences, 2018, 165, 13007.	0.1	1
27	Effects of thermomechanical history and environment on the fatigue behavior of (Î²)-Ti-Nb implant alloys. MATEC Web of Conferences, 2018, 165, 06001.	0.1	10
28	Crack growth behaviour of aluminium wrought alloys in the Very High Cycle Fatigue regime. MATEC Web of Conferences, 2018, 165, 20007.	0.1	1
29	Influence of microstructural discontinuities on the behaviour of long cracks in the VHCF regime for the aluminium alloys EN AW 6082 and EN AW 5083. MATEC Web of Conferences, 2018, 165, 20005.	0.1	0
30	Influence of loading frequency and role of surface micro-defects on fatigue behavior of metastable austenitic stainless steel AISI 304. International Journal of Fatigue, 2017, 103, 48-59.	2.8	13
31	Fatigue properties of a new generation ÃŸ-type Ti-Nb alloy for osteosynthesis with an industrial standard surface condition. International Journal of Fatigue, 2017, 103, 147-156.	2.8	6
32	Powder metallurgical processing of low modulus Î²-type Ti-45Nb to bulk and macro-porous compacts. Powder Technology, 2017, 322, 393-401.	2.1	16
33	Cyclic deformation behavior of austenitic stainless steels in the very high cycle fatigue regimeâ€"Experimental results and mechanism-based simulations. Journal of Materials Research, 2017, 32, 4387-4397.	1.2	1
34	Crack growth behavior in an aluminum alloy under very low stress amplitudes. Journal of Materials Research, 2017, 32, 4354-4361.	1.2	6
35	Influence of surface condition due to laser beam cutting on the fatigue behavior of metastable austenitic stainless steel AISI 304. Engineering Fracture Mechanics, 2017, 185, 227-240.	2.0	18
36	Analysis of Crack Extension Mechanism in the Near-Threshold Regime in an Aluminum Alloy. Procedia Structural Integrity, 2017, 7, 235-241.	0.3	7

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37	Experimental investigation and analytical description of the damage evolution in a Ni-based superalloy beyond 106 loading cycles. International Journal of Fatigue, 2016, 93, 272-280.	2.8	7
38	Influence of Notch Effects Created by Laser Cutting Process on Fatigue Behavior of Metastable Austenitic Stainless Steel. Procedia Engineering, 2016, 160, 175-182.	1.2	12
39	Effect of martensite content and geometry of inclusions on the VHCF properties of predeformed metastable austenitic stainless steels. Procedia Structural Integrity, 2016, 2, 1093-1100.	0.3	3
40	Modeling and simulation of temperature-dependent cyclic plastic deformation of austenitic stainless steels at the VHCF limit. Procedia Structural Integrity, 2016, 2, 1156-1163.	0.3	1
41	Development of a probabilistic model for the prediction of fatigue life in the very high cycle fatigue (VHCF) range based on inclusion population. Procedia Structural Integrity, 2016, 2, 1085-1092.	0.3	6
42	Cyclic deformation behavior of austenitic Crâ€“Ni-steels in the VHCF regime: Part I â€“ Experimental study. International Journal of Fatigue, 2016, 93, 250-260.	2.8	43
43	Cyclic deformation behavior of austenitic Crâ€“Ni-steels in the VHCF regime: Part II â€“ Microstructure-sensitive simulation. International Journal of Fatigue, 2016, 93, 261-271.	2.8	15
44	Prediction of Size and Position of Fracture Relevant Defects of Samples Fatigued in the VHCF Area on the Basis of Metallographic Examinations. Praktische Metallographie/Practical Metallography, 2016, 53, 435-449.	0.1	1
45	Modeling of deformation-induced phase transformation during very high cycle fatigue (VHCF) using the boundary element method. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 169-170.	0.2	0
46	Using Martensite Formation during Tubeâ€Forming to Optimize Fatigue Strength. Steel Research International, 2014, 85, 1355-1363.	1.0	2
47	Numerical investigation of the influence of shear band localization on the resonant behavior in the VHCF regime. Theoretical and Applied Mechanics Letters, 2014, 4, 051004.	1.3	2
48	Simulation of Deformation-induced Martensite Formation and its Influence on the Resonant Behavior in the Very High Cycle Fatigue (VHCF) Regime. , 2014, 3, 1135-1142.		4
49	Development of a probabilistic model for the prediction of fatigue life in the very high cycle fatigue (VHCF) range based on inclusion population. MATEC Web of Conferences, 2014, 12, 10001.	0.1	1
50	Simulation of irreversible damage accumulation in the very high cycle fatigue (VHCF) regime using the boundary element method. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 575, 169-176.	2.6	15
51	High Temperature Fatigue of Nickel-based Superalloys during High Frequency Testing. Procedia Engineering, 2013, 55, 645-649.	1.2	2
52	High-frequency cyclic testing of welded aluminium alloy joints in the region of very high cycle fatigue (VHCF). International Journal of Fatigue, 2013, 57, 120-130.	2.8	22
53	Simulation of microstructural damage evolution during very high cycle fatigue (VHCF) using the boundary element method. Proceedings in Applied Mathematics and Mechanics, 2013, 13, 75-76.	0.2	2
54	Diversity of damage evolution during cyclic loading at very high numbers of cycles. International Materials Reviews, 2012, 57, 73-91.	9.4	59

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55	Effect of precipitation condition, prestrain and temperature on the fatigue behaviour of wrought nickel-based superalloys in the VHCF range. Acta Materialia, 2011, 59, 5288-5304.	3.8	32
56	Untersuchungen zur Wechselwirkung von Versetzungen und Ausscheidungen in einer Nickelbasis-Superlegierung im VHCF-Bereich. Materialwissenschaft Und Werkstofftechnik, 2011, 42, 200-211.	0.5	3
57	Localized cyclic deformation and corresponding dislocation arrangements of polycrystalline Ni-base superalloys and pure Nickel in the VHCF regime. International Journal of Fatigue, 2011, 33, 2-9.	2.8	52
58	On the effects of particle strengthening and temperature on the VHCF behavior at high frequency. International Journal of Fatigue, 2011, 33, 42-48.	2.8	24
59	Prehistory effects on the VHCF behaviour of engineering metallic materials with different strengthening mechanisms. Journal of Physics: Conference Series, 2010, 240, 012040.	0.3	7
60	Influence of prestraining on the high-temperature fatigue behaviour of polycrystalline nickel-based superalloys in the VHCF range. Procedia Engineering, 2010, 2, 1383-1392.	1.2	8
61	Adjusting the very high cycle fatigue properties of a metastable austenitic stainless steel by means of the martensite content. Procedia Engineering, 2010, 2, 1663-1672.	1.2	35
62	Very high cycle fatigue behaviour of austenitic stainless steel and the effect of strain-induced martensite. International Journal of Fatigue, 2010, 32, 936-942.	2.8	92
63	Microstructural characterisation and constitutive behaviour of alloy RR1000 under fatigue and creepâ€“fatigue loading conditions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 518, 27-34.	2.6	25
64	Effect of Geometry and Distribution of Inclusions on the VHCF Properties of a Metastable Austenitic Stainless Steel. Advanced Materials Research, 0, 891-892, 440-445.	0.3	8
65	Fatigue Behavior of Precipitation Hardening Alloys in the LCF and VHCF Regime. Advanced Materials Research, 0, 891-892, 476-481.	0.3	1
66	Influence of Process-Related Defects on the Fatigue Behaviour of Welded Aluminium Joints at Very High Cycles. Advanced Materials Research, 0, 891-892, 1476-1481.	0.3	1
67	Fatigue Behaviour of Laser Beam Welded Circular Weld Seams under Multi-Axial Loading. Advanced Materials Research, 0, 891-892, 1397-1402.	0.3	1
68	Development of a Probabilistic Model for the Prediction of Fatigue Life in the Very High Cycle Fatigue (VHCF) Range Based on Inclusion Population. Advanced Materials Research, 0, 891-892, 1093-1098.	0.3	0
69	Simulation of the Interaction of Plastic Deformation in Shear Bands with Deformation-Induced Martensitic Phase Transformation in the VHCF Regime. Key Engineering Materials, 0, 664, 314-325.	0.4	4