Malte Vollmer

List of Publications by Year
in descending order

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36 papers	890 citations	567281 15 h-index	477307 29 g-index
36 all docs	36 docs citations	36 times ranked	516 citing authors

#	Article	IF	Citations
1	Application and potential of shape memory alloys for dowel-type connections in timber structures. Wood Material Science and Engineering, 2022, 17, 636-647.	2.3	3
2	Microstructural and Mechanical Properties of AISI 4140 Steel Processed by Electron Beam Powder Bed Fusion Analyzed Using Miniature Samples. , 2022, , 296-311.		1
3	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.	2.1	7
4	On the Influence of Microstructure on the Corrosion Behavior of Feâ€"Mnâ€"Alâ€"Ni Shape Memory Alloy in 5.0â€‰wt% NaCl Solution. Advanced Engineering Materials, 2021, 23, 2000865.	3.5	9
5	Functionally graded structures realized based on Feâ€"Mnâ€"Alâ€"Ni shape memory alloys. Scripta Materialia, 2021, 194, 113619.	5.2	10
6	Laser Powder Bed Fusion Processing of Fe-Mn-Al-Ni Shape Memory Alloyâ€"On the Effect of Elevated Platform Temperatures. Metals, 2021, 11, 185.	2.3	11
7	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 solutionâ€"A comparative study. Corrosion Science, 2021, 179, 109172.	6.6	17
8	Tribological Performance of Additively Manufactured AISI H13 Steel in Different Surface Conditions. Materials, 2021, 14, 928.	2.9	13
9	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	21
10	Effect of Crystallographic Orientation and Grain Boundaries on Martensitic Transformation and Superelastic Response of Oligocrystalline Feâ€"Mnâ€"Alâ€"Ni Shape Memory Alloys. Shape Memory and Superelasticity, 2021, 7, 373-382.	2.2	18
11	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	7
12	Influence of Microstructure and Defects on Mechanical Properties of AISIÂ H13 Manufactured by Electron Beam Powder Bed Fusion. Journal of Materials Engineering and Performance, 2021, 30, 6895-6904.	2.5	16
13	Novel prestressing applications in civil engineering structures enabled by Fe Mn Al Ni shape memory alloys. Engineering Structures, 2021, 241, 112430.	5.3	29
14	In situ characterization of the functional degradation of a <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:mrow><mml:mo>[</mml:mo><mml:mrow><mml:mn>00</mml:mn><mml:mover accent="true"><mml:mn>1</mml:mn><mml:mo>Â¯</mml:mo></mml:mover></mml:mrow><mml:mo>]</mml:mo></mml:mrow></mml: orientated Feâ€"Mnâ€"Alâ€"Ni single crystal under compression using acoustic emission measurements. Acta Materialia, 2021, 220, 117333.	7.9	10
15	Effect of Fibre Material and Fibre Roughness on the Pullout Behaviour of Metallic Micro Fibres Embedded in UHPC. Materials, 2020, 13, 3128.	2.9	20
16	Excellent superelasticity in a Co-Ni-Ga high-temperature shape memory alloy processed by directed energy deposition. Materials Research Letters, 2020, 8, 314-320.	8.7	19
17	Effects of Thermomechanical Processing on the Microstructure and Mechanical Properties of Fe-Based Alloys. Journal of Materials Engineering and Performance, 2020, 29, 2274-2282.	2.5	4
18	Fatigue Crack Initiation in the Iron-Based Shape Memory Alloy FeMnAlNiTi. Shape Memory and Superelasticity, 2020, 6, 323-331.	2.2	10

#	Article	IF	Citations
19	Induction Butt Welding Followed by Abnormal Grain Growth: A Promising Route for Joining of Feâ€“Mnâ€“Alâ€“Ni Tubes. Shape Memory and Superelasticity, 2020, 6, 131-138.	2.2	10
20	Shape memory effect and superelasticity in high-strength FeNiCoAlTiNb single crystals. AIP Conference Proceedings, 2020, , .	0.4	2
21	On the Challenges toward Realization of Functionally Graded Structures by Electron Beam Meltingâ€"Fe-Base Shape Memory Alloy and Stainless Steel. , 2020, , 20-33.		1
22	FeMnNiAl Iron-Based Shape Memory Alloy: Promises and Challenges. Shape Memory and Superelasticity, 2019, 5, 263-277.	2.2	39
23	Promoting abnormal grain growth in Fe-based shape memory alloys through compositional adjustments. Nature Communications, 2019, 10, 2337.	12.8	79
24	Pathways Towards Grain Boundary Engineering for Improved Structural Performance in Polycrystalline Coâ€“Niâ€“Ga Shape Memory Alloys. Shape Memory and Superelasticity, 2019, 5, 73-83.	2.2	10
25	On the microstructural and functional stability of Fe-Mn-Al-Ni at ambient and elevated temperatures. Scripta Materialia, 2019, 162, 442-446.	5.2	27
26	Cyclic Degradation Behavior of $$ langle 001 angle $$ âŸ¨ 001 âŸ© -Oriented Feâ€“Mnâ€“Alâ€“Ni Single Crystals in Tension. Shape Memory and Superelasticity, 2017, 3, 335-346.	2.2	22
27	Electron beam welding of Feâ€“Mnâ€“Alâ€“Ni shape memory alloy: Microstructure evolution and shape memory response. Functional Materials Letters, 2017, 10, 1750043.	1.2	14
28	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.	5.2	51
29	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.	2.2	50
30	Effect of grain size on the superelastic response of a FeMnAlNi polycrystalline shape memory alloy. Scripta Materialia, 2016, 125, 68-72.	5.2	53
31	Cyclic degradation in bamboo-like Feâ€“Mnâ€“Alâ€“Ni shape memory alloys â€" The role of grain orientation. Scripta Materialia, 2016, 114, 156-160.	5.2	61
32	Damage evolution in pseudoelastic polycrystalline Coâ€“Niâ€“Ga high-temperature shape memory alloys. Journal of Alloys and Compounds, 2015, 633, 288-295.	5.5	38
33	On the effect of gamma phase formation on the pseudoelastic performance of polycrystalline Feâ€“Mnâ€“Alâ€“Ni shape memory alloys. Scripta Materialia, 2015, 108, 23-26.	5.2	92
34	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.	2.2	114
35	Laser Metal Deposition of Fe- and Co-Based Shape-Memory Alloys. Advanced Materials Research, 0, 1161, 105-112.	0.3	2
36	Processing effects on tensile superelastic behaviour of Fe43.5Mn34Al15 Â± XNi7.5â^“X shape memory alloys. IOP Conference Series: Materials Science and Engineering, 0, 591, 012026.	0.6	0