Malte Vollmer

List of Publications by Year
in descending order

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	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
2	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
3	Promoting abnormal grain growth in Fe-based shape memory alloys through compositional adjustments. Nature Communications, 2019, 10, 2337.	12.8	79
4	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
5	Effect of grain size on the superelastic response of a FeMnAlNi polycrystalline shape memory alloy. Scripta Materialia, 2016, 125, 68-72.	5.2	53
6	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
7	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
8	FeMnNiAl Iron-Based Shape Memory Alloy: Promises and Challenges. Shape Memory and Superelasticity, 2019, 5, 263-277.	2.2	39
9	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
10	Novel prestressing applications in civil engineering structures enabled by Fe Mn Al Ni shape memory alloys. Engineering Structures, 2021, 241, 112430.	5.3	29
11	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
12	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
13	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
14	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
15	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
16	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
17	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
18	Influence of Microstructure and Defects on Mechanical Properties of AISIÂH13 Manufactured by Electron Beam Powder Bed Fusion. Journal of Materials Engineering and Performance, 2021, 30, 6895-6904.	2.5	16

#	Article	IF	Citations
19	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
20	Tribological Performance of Additively Manufactured AISI H13 Steel in Different Surface Conditions. Materials, 2021, 14, 928.	2.9	13
21	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
22	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
23	Fatigue Crack Initiation in the Iron-Based Shape Memory Alloy FeMnAlNiTi. Shape Memory and Superelasticity, 2020, 6, 323-331.	2.2	10
24	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
25	Functionally graded structures realized based on Feâ€“Mnâ€“Alâ€“Ni shape memory alloys. Scripta Materialia, 2021, 194, 113619.	5.2	10
26	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
27	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
28	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
29	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
30	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
31	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
32	Laser Metal Deposition of Fe- and Co-Based Shape-Memory Alloys. Advanced Materials Research, 0, 1161, 105-112.	0.3	2
33	Shape memory effect and superelasticity in high-strength FeNiCoAlTiNb single crystals. AIP Conference Proceedings, 2020, , .	0.4	2
34	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
35	Microstructural and Mechanical Properties of AISI 4140 Steel Processed by Electron Beam Powder Bed Fusion Analyzed Using Miniature Samples. , 2022, , 296-311.		1
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