Christian Haase

List of Publications by Year
in descending order

65 papers	2,439 citations	201575 27 h-index	206029 48 g-index
66 all docs	66 docs citations	66 times ranked	1759 citing authors

#	Article	IF	Citations
1	Enhanced precipitation strengthening of multi-principal element alloys by Îº- and B2-phases. Materials and Design, 2021, 198, 109315.	3.3	19
2	The microstructural effects on the mechanical response of polycrystals: A comparative experimental-numerical study on conventionally and additively manufactured metallic materials. International Journal of Plasticity, 2021, 140, 102941.	4.1	18
3	Revealing the relation between microstructural heterogeneities and local mechanical properties of complex-phase steel by correlative electron microscopy and nanoindentation characterization. Materials and Design, 2021, 203, 109620.	3.3	33
4	Precise control of microstructure and mechanical properties of additively manufactured steels using elemental carbon powder. Materials Letters, 2021, 295, 129788.	1.3	6
5	Effects of process parameters on bead shape, microstructure, and mechanical properties in wire + arc additive manufacturing of Al0.1CoCrFeNi high-entropy alloy. Journal of Manufacturing Processes, 2021, 68, 1314-1327.	2.8	30
6	On the influence of Ï°-carbides on the low-cycle fatigue behavior of high-Mn light-weight steels. International Journal of Fatigue, 2021, 150, 106327.	2.8	14
7	Compositional heterogeneity in multiphase steels: Characterization and influence on local properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 827, 142078.	2.6	14
8	Directed energy deposition of Inconel 718 powder, cold and hot wire using a six-beam direct diode laser set-up. Additive Manufacturing, 2021, 47, 102269.	1.7	10
9	Defect formation and prevention in directed energy deposition of high-manganese steels and the effect on mechanical properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 772, 138688.	2.6	34
10	Combined Al and C alloying enables mechanism-oriented design of multi-principal element alloys: Ab initio calculations and experiments. Scripta Materialia, 2020, 178, 366-371.	2.6	18
11	Anisotropic polycrystal plasticity due to microstructural heterogeneity: A multi-scale experimental and numerical study on additively manufactured metallic materials. Acta Materialia, 2020, 185, 340-369.	3.8	64
12	Tailoring the nanostructure of laser powder bed fusion additively manufactured maraging steel. Additive Manufacturing, 2020, 36, 101561.	1.7	11
13	Combined Îº-carbide precipitation and recovery enables ultra-high strength and ductility in light-weight steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 795, 139928.	2.6	18
14	Optimal Design for Metal Additive Manufacturing: An Integrated Computational Materials Engineering (ICME) Approach. Jom, 2020, 72, 1092-1104.	0.9	32
15	Controlling microstructure and mechanical properties of additively manufactured high-strength steels by tailored solidification. Additive Manufacturing, 2020, 35, 101389.	1.7	16
16	Computer-Aided Material Design for Crash Boxes Made of High Manganese Steels. Metals, 2019, 9, 772.	1.0	3
17	Mechanical twinning and texture evolution during asymmetric warm rolling of a high manganese steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 764, 138183.	2.6	15
18	The Influence of Warm Rolling on Microstructure and Deformation Behavior of High Manganese Steels. Metals, 2019, 9, 797.	1.0	15

#	Article	IF	Citations
19	From High-Manganese Steels to Advanced High-Entropy Alloys. Metals, 2019, 9, 726.	1.0	11
20	Understanding the process-microstructure correlations for tailoring the mechanical properties of L-PBF produced austenitic advanced high strength steel. Additive Manufacturing, 2019, 30, 100914.	1.7	31
21	Physical Metallurgy of High Manganese Steels. Metals, 2019, 9, 1053.	1.0	9
22	AixViPMaPÂ®â€"an Operational Platform for Microstructure Modeling Workflows. Integrating Materials and Manufacturing Innovation, 2019, 8, 122-143.	1.2	11
23	Rapid Alloy Development of Extremely High-Alloyed Metals Using Powder Blends in Laser Powder Bed Fusion. Materials, 2019, 12, 1706.	1.3	49
24	Thermo-micro-mechanical simulation of metal forming processes. International Journal of Solids and Structures, 2019, 178-179, 59-80.	1.3	9
25	Phase-Field Modeling of Microstructure Evolution of Binary and Multicomponent Alloys During Selective Laser Melting (SLM) Process. Minerals, Metals and Materials Series, 2019, , 301-309.	0.3	0
26	Strain-Rate-Dependent Deformation Behavior and Mechanical Properties of a Multi-Phase Medium-Manganese Steel. Metals, 2019, 9, 344.	1.0	37
27	Microstructure Evolution of Binary and Multicomponent Manganese Steels During Selective Laser Melting: Phase-Field Modeling and Experimental Validation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 2022-2040.	1.1	33
28	Combined deformation twinning and short-range ordering causes serrated flow in high-manganese steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 746, 434-442.	2.6	26
29	Influence of deformation and annealing twinning on the microstructure and texture evolution of face-centered cubic high-entropy alloys. Acta Materialia, 2018, 150, 88-103.	3.8	151
30	Mechanical properties and deformation behavior of additively manufactured lattice structures of stainless steel. Materials and Design, 2018, 145, 205-217.	3.3	150
31	Influence of rolling asymmetry on the microstructure, texture and mechanical behavior of high-manganese twinning-induced plasticity steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 709, 172-180.	2.6	15
32	Comparative Study of the Influence of Reversionâ€•and Recoveryâ€•Annealing on the Mechanical Behavior of Highâ€Manganese Steels with Varying Stacking Fault Energy. Steel Research International, 2018, 89, 1700377.	1.0	5
33	Correlation of defect density with texture evolution during cold rolling of a Twinning-Induced Plasticity (TWIP) steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 711, 69-77.	2.6	15
34	Design of high-manganese steels for additive manufacturing applications with energy-absorption functionality. Materials and Design, 2018, 160, 1250-1264.	3.3	53
35	Modeling the Effect of Primary and Secondary Twinning on Texture Evolution during Severe Plastic Deformation of a Twinning-Induced Plasticity Steel. Materials, 2018, 11, 863.	1.3	9
36	Combining thermodynamic modeling and 3D printing of elemental powder blends for high-throughput investigation of high-entropy alloys â€" Towards rapid alloy screening and design. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 688, 180-189.	2.6	145

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37	Identifying Structureâ€“Property Relationships Through DREAM.3D Representative Volume Elements and DAMASK Crystal Plasticity Simulations: An Integrated Computational Materials Engineering Approach. Jom, 2017, 69, 848-855.	0.9	71
38	Microstructure and texture evolution of a high manganese TWIP steel during cryo-rolling. Materials Characterization, 2017, 132, 20-30.	1.9	26
39	Enhancement of the strength-ductility combination of twinning-induced/transformation-induced plasticity steels by reversion annealing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 681, 56-64.	2.6	46
40	On the deformation behavior of Îº-carbide-free and Îº-carbide-containing high-Mn light-weight steel. Acta Materialia, 2017, 122, 332-343.	3.8	153
41	Recrystallization kinetics and texture evolution during annealing of cold-rolled high-Mn steel. AIP Conference Proceedings, 2017, , .	0.3	0
42	Exploiting Process-Related Advantages of Selective Laser Melting for the Production of High-Manganese Steel. Materials, 2017, 10, 56.	1.3	60
43	Structural/textural changes and strengthening of an advanced high-Mn steel subjected to cold rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 651, 763-773.	2.6	46
44	Equal-channel angular pressing and annealing of a twinning-induced plasticity steel: Microstructure, texture, and mechanical properties. Acta Materialia, 2016, 107, 239-253.	3.8	71
45	Effect of cold rolling on recrystallization and tensile behavior of a high-Mn steel. Materials Characterization, 2016, 112, 180-187.	1.9	71
46	On the applicability of recovery-annealed Twinning-Induced Plasticity steels: Potential and limitations. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 649, 74-84.	2.6	51
47	Deformation and Recrystallization Textures in a High-Mn Steel Subjected to Large Strain Cold Rolling. , 2016, , 147-152.		1
48	Twin-roll strip casting: A competitive alternative for the production of high-manganese steels with advanced mechanical properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 627, 72-81.	2.6	53
49	Recrystallization behavior of a high-manganese steel: Experiments and simulations. Acta Materialia, 2015, 100, 155-168.	3.8	96
50	Grain boundary segregation in Feâ€“Mnâ€“C twinning-induced plasticity steels studied by correlative electron backscatter diffraction and atom probe tomography. Acta Materialia, 2015, 83, 37-47.	3.8	85
51	On the evolution and modelling of brass-type texture in cold-rolled twinning-induced plasticity steel. Acta Materialia, 2014, 70, 259-271.	3.8	66
52	Applying the texture analysis for optimizing thermomechanical treatment of high manganese twinning-induced plasticity steel. Acta Materialia, 2014, 80, 327-340.	3.8	92
53	Microstructure evolution and strengthening mechanisms of Feâ€“23Mnâ€“0.3Câ€“1.5Al TWIP steel during cold rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 617, 52-60.	2.6	112
54	Tailoring the Mechanical Properties of a Twinning-Induced Plasticity Steel by Retention of Deformation Twins During Heat Treatment. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 4445-4449.	1.1	41

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55	Improving sinterability of Tiâ€“6Alâ€“4V from blended elemental powders through equal channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 565, 396-404.	2.6	18
56	On the Relation of Microstructure and Texture Evolution in an Austenitic Fe-28Mn-0.28C TWIP Steel During Cold Rolling. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 911-922.	1.1	67
57	Texture Evolution of a Cold-Rolled Fe-28Mn-0.28C TWIP Steel during Recrystallization. Materials Science Forum, 2013, 753, 213-216.	0.3	26
58	Microstructure and Texture Evolution during Recrystallization of a Fe-Mn-C Alloy. Materials Science Forum, 2013, 753, 177-180.	0.3	4
59	Production of Tiâ€“6Alâ€“4V billet through compaction of blended elemental powders by equal-channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 550, 263-272.	2.6	35
60	Ti-6Al-4V Billet Produced by Compaction of BE Powders Using Equal-Channel Angular Pressing. Key Engineering Materials, 0, 520, 301-308.	0.4	1
61	Application of Texture Analysis for Optimizing Thermo-Mechanical Treatment of a High Mn TWIP Steel. Advanced Materials Research, 0, 922, 213-218.	0.3	10
62	Deformation and Recrystallization Textures in A High-Mn Steel Subjected to Large Strain Cold Rolling. , 0, , 147-152.		0
63	Development of Fine-Grained High-Mn Steelby Cold Rolling and Annealing. Materials Science Forum, 0, 838-839, 434-439.	0.3	1
64	Metallurgical Gradients in Structural Materials: Potential and Challenges in Creating Artificial Segregations in Medium Manganese Steel via Rollâ€Bonding. Steel Research International, 0, , 2100429.	1.0	5
65	Correlating the microstructural heterogeneity with local formability of coldâ€rolled DP and CP steels through hardness gradients. Steel Research International, 0, , .	1.0	2