Eric A JÃ¤gle

List of Publications by Year
in descending order

51 papers	3,201 citations	257450 24 h-index	197818 49 g-index
51 all docs	51 docs citations	51 times ranked	2580 citing authors

#	Article	IF	Citations
1	Investigation of temperature distribution and solidification morphology in multilayered directed energy deposition of Al-0.5Sc-0.5Si alloy. International Journal of Heat and Mass Transfer, 2022, 186, 122492.	4.8	18
2	Comparative study of hydrogen embrittlement resistance between additively and conventionally manufactured 304L austenitic stainless steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 803, 140499.	5.6	23
3	Reducing hot tearing by grain boundary segregation engineering in additive manufacturing: example of an AlxCoCrFeNi high-entropy alloy. Acta Materialia, 2021, 204, 116505.	7.9	115
4	Properties and influence of microstructure and crystal defects in Fe2VAl modified by laser surface remelting. Scripta Materialia, 2021, 193, 153-157.	5.2	16
5	Reducing cohesion of metal powders for additive manufacturing by nanoparticle dry-coating. Powder Technology, 2021, 379, 585-595.	4.2	28
6	Nitride Dispersion Strengthened Steel Development after Sintering of Nitrided Feâ€4.6 at% Al Alloy Powder. Steel Research International, 2021, 92, 2100174.	1.8	2
7	Recrystallization kinetics, mechanisms, and topology in alloys processed by laser powder-bed fusion: AISI 316L stainless steel as example. Materialia, 2021, 20, 101236.	2.7	19
8	Microstructural characterization of 15-5PH stainless steel processed by laser powder-bed fusion. Materials Characterization, 2021, 181, 111485.	4.4	8
9	Influence of increased carbon content on the processability of high-speed steel HS6-5-3-8 by laser powder bed fusion. Additive Manufacturing, 2021, 46, 102125.	3.0	4
10	On strong-scaling and open-source tools for analyzing atom probe tomography data. Npj Computational Materials, 2021, 7, .	8.7	14
11	Steels in additive manufacturing: A review of their microstructure and properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 772, 138633.	5.6	549
12	Control of thermally stable core-shell nano-precipitates in additively manufactured Al-Sc-Zr alloys. Additive Manufacturing, 2020, 32, 100910.	3.0	27
13	Early stage phase separation of AlCoCr0.75Cu0.5FeNi high-entropy powder at the nanoscale. Journal of Alloys and Compounds, 2020, 820, 153149.	5.5	6
14	In-situ synthesis via laser metal deposition of a lean Cuâ€“3.4Crâ€“0.6Nb (at%) conductive alloy hardened by Cr nano-scale precipitates and by Laves phase micro-particles. Acta Materialia, 2020, 197, 330-340.	7.9	30
15	Nitridation and hydrogen reduction of Fe-2.3â€¯wt% Al alloy powder. Powder Technology, 2020, 374, 527-533.	4.2	3
16	Laser Powder-Bed Fusion as an Alloy Development Tool: Parameter Selection for In-Situ Alloying Using Elemental Powders. Materials, 2020, 13, 3922.	2.9	28
17	Bulk nanostructured AlCoCrFeMnNi chemically complex alloy synthesized by laser-powder bed fusion. Additive Manufacturing, 2020, 35, 101337.	3.0	3
18	High-strength Damascus steel by additive manufacturing. Nature, 2020, 582, 515-519.	27.8	260

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19	In-situ synthesis of oxides by reactive process atmospheres during L-PBF of stainless steel. Additive Manufacturing, 2020, 33, 101178.	3.0	24
20	On Strong Scaling Open Source Tools for Mining Atom Probe Tomography Data. Microscopy and Microanalysis, 2019, 25, 298-299.	0.4	2
21	Application of Atom Probe Tomography to Complex Microstructures of Laser Additively Manufactured Samples. Microscopy and Microanalysis, 2019, 25, 2514-2515.	0.4	0
22	The role of lattice defects, element partitioning and intrinsic heat effects on the microstructure in selective laser melted Ti-6Al-4V. Acta Materialia, 2019, 167, 136-148.	7.9	160
23	Predictive process parameter selection for Selective Laser Melting Manufacturing: Applications to high thermal conductivity alloys. Additive Manufacturing, 2019, 27, 246-258.	3.0	31
24	Misorientation-dependent solute enrichment at interfaces and its contribution to defect formation mechanisms during laser additive manufacturing of superalloys. Physical Review Materials, 2019, 3, .	2.4	30
25	Synthesis and stabilization of a new phase regime in a Mo-Si-B based alloy by laser-based additive manufacturing. Acta Materialia, 2018, 151, 31-40.	7.9	42
26	Characterizing solute hydrogen and hydrides in pure and alloyed titanium at the atomic scale. Acta Materialia, 2018, 150, 273-280.	7.9	81
27	Hot cracking mechanism affecting a non-weldable Ni-based superalloy produced by selective electron Beam Melting. Acta Materialia, 2018, 142, 82-94.	7.9	344
28	Interfaces and defect composition at the near-atomic scale through atom probe tomography investigations. Journal of Materials Research, 2018, 33, 4018-4030.	2.6	35
29	Massive nanoprecipitation in an Fe-19Ni-xAl maraging steel triggered by the intrinsic heat treatment during laser metal deposition. Acta Materialia, 2017, 129, 52-60.	7.9	224
30	Combinatorial Alloy Design by Laser Additive Manufacturing. Steel Research International, 2017, 88, 1600416.	1.8	49
31	In-process Precipitation During Laser Additive Manufacturing Investigated by Atom Probe Tomography. Microscopy and Microanalysis, 2017, 23, 694-695.	0.4	22
32	Comparison of Maraging Steel Micro- and Nanostructure Produced Conventionally and by Laser Additive Manufacturing. Materials, 2017, 10, 8.	2.9	139
33	Efficient additive manufacturing production of oxide- and nitride-dispersion-strengthened materials through atmospheric reactions in liquid metal deposition. Materials and Design, 2016, 111, 60-69.	7.0	57
34	Formation Mechanisms of Alloying Element Nitrides in Recrystallized and Deformed Ferritic Fe-Cr-Al Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 4578-4593.	2.2	6
35	Precipitation Reactions in Age-Hardenable Alloys During Laser Additive Manufacturing. Jom, 2016, 68, 943-949.	1.9	123
36	The Nature and Origin of â€œDouble Expanded Austeniteâ€•in Ni-Based Ni-Ti Alloys Developing Upon Low Temperature Gaseous Nitriding. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 4115-4131.	2.2	16

#	ARTICLE	IF	CITATIONS
37	Co-deformation of crystalline-amorphous nanolaminates. Microscopy and Microanalysis, 2015, 21, 361-362.	0.4	2
38	Deformation induced alloying in crystalline â€“ metallic glass nano-composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 628, 269-280.	5.6	19
39	Microstructural influences on strengthening in a naturally aged and overaged Alâ€“Cuâ€“Liâ€“Mg based alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 637, 162-169.	5.6	27
40	Publisherâ€™s Note: Shear-Induced Mixing Governs Codeformation of Crystalline-Amorphous Nanolaminates [Phys. Rev. Lett.113, 035501 (2014)]. Physical Review Letters, 2014, 113, .	7.8	7
41	Shear-Induced Mixing Governs Codeformation of Crystalline-Amorphous Nanolaminates. Physical Review Letters, 2014, 113, 035501.	7.8	70
42	Precipitation and austenite reversion behavior of a maraging steel produced by selective laser melting. Journal of Materials Research, 2014, 29, 2072-2079.	2.6	221
43	The Maximum Separation Cluster Analysis Algorithm for Atom-Probe Tomography: Parameter Determination and Accuracy. Microscopy and Microanalysis, 2014, 20, 1662-1671.	0.4	46
44	Intrinsic and extrinsic size effects in the deformation of amorphous CuZr/nanocrystalline Cu nanolaminates. Acta Materialia, 2014, 80, 94-106.	7.9	135
45	Interplay of Kinetics and Microstructure in the Recrystallization of Pure Copper: Comparing Mesoscopic Simulations and Experiments. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 2534-2551.	2.2	4
46	The Kinetics of and the Microstructure Induced by the Recrystallization of Copper. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 1117-1131.	2.2	21
47	The kinetics of grain-boundary nucleated phase transformations: Simulations and modelling. Acta Materialia, 2011, 59, 5775-5786.	7.9	26
48	Kinetics of interface-controlled phase transformations: atomistic and mesoscopic simulations. International Journal of Materials Research, 2011, 102, 837-845.	0.3	1
49	Kinetics of the allotropic hcpâ€“fcc phase transformation in cobalt. Philosophical Magazine, 2011, 91, 437-457.	1.6	69
50	Predicting microstructures from phase transformation kinetics: the case of isochronal heating and cooling from a supersaturated matrix. Modelling and Simulation in Materials Science and Engineering, 2010, 18, 065010.	2.0	12
51	Simulation of the Kinetics of Grain-Boundary Nucleated Phase Transformations. Solid State Phenomena, 0, 172-174, 1128-1133.	0.3	3