Xipeng Tan

List of Publications by Year
in descending order

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56 papers	4,858 citations	185998 28 h-index	161609 54 g-index
58 all docs	58 docs citations	58 times ranked	4352 citing authors

#	Article	IF	Citations
1	Anisotropy and heterogeneity of microstructure and mechanical properties in metal additive manufacturing: A critical review. Materials and Design, 2018, 139, 565-586.	3.3	913
2	Graded microstructure and mechanical properties of additive manufactured Tiâ€“6Alâ€“4V via electron beam melting. Acta Materialia, 2015, 97, 1-16.	3.8	535
3	Selective laser melting of stainless steel 316L with low porosity and high build rates. Materials and Design, 2016, 104, 197-204.	3.3	511
4	Simultaneously enhanced strength and ductility for 3D-printed stainless steel 316L by selective laser melting. NPG Asia Materials, 2018, 10, 127-136.	3.8	385
5	Metallic powder-bed based 3D printing of cellular scaffolds for orthopaedic implants: A state-of-the-art review on manufacturing, topological design, mechanical properties and biocompatibility. Materials Science and Engineering C, 2017, 76, 1328-1343.	3.8	381
6	Machine learning in additive manufacturing: State-of-the-art and perspectives. Additive Manufacturing, 2020, 36, 101538.	1.7	230
7	Additive manufacturing of NiTi shape memory alloys using pre-mixed powders. Journal of Materials Processing Technology, 2019, 271, 152-161.	3.1	141
8	Reducing hot tearing by grain boundary segregation engineering in additive manufacturing: example of an AlxCoCrFeNi high-entropy alloy. Acta Materialia, 2021, 204, 116505.	3.8	115
9	Revealing martensitic transformation and Î±/Î² interface evolution in electron beam melting three-dimensional-printed Ti-6Al-4V. Scientific Reports, 2016, 6, 26039.	1.6	114
10	Spatial and geometrical-based characterization of microstructure and microhardness for an electron beam melted Tiâ€“6Alâ€“4V component. Materials and Design, 2016, 95, 287-295.	3.3	112
11	Revealing hot tearing mechanism for an additively manufactured high-entropy alloy via selective laser melting. Scripta Materialia, 2019, 168, 129-133.	2.6	109
12	Process parameter optimization and mechanical properties for additively manufactured stainless steel 316L parts by selective electron beam melting. Materials and Design, 2018, 147, 157-166.	3.3	108
13	An experimental and simulation study on build thickness dependent microstructure for electron beam melted Tiâ€“6Alâ€“4V. Journal of Alloys and Compounds, 2015, 646, 303-309.	2.8	105
14	Hybrid microscaffold-based 3D bioprinting of multi-cellular constructs with high compressive strength: A new biofabrication strategy. Scientific Reports, 2016, 6, 39140.	1.6	97
15	Fabrication and microstructural characterisation of additive manufactured Ti-6Al-4V parts by electron beam melting. Virtual and Physical Prototyping, 2015, 10, 13-21.	5.3	70
16	Effect of Ru additions on very high temperature creep properties of a single crystal Ni-based superalloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 580, 21-35.	2.6	62
17	Carbide precipitation characteristics in additive manufacturing of Co-Cr-Mo alloy via selective electron beam melting. Scripta Materialia, 2018, 143, 117-121.	2.6	60
18	Effect of ruthenium on high-temperature creep rupture life of a single crystal nickel-based superalloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 8381-8388.	2.6	51

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19	Anisotropic microstructure and mechanical properties of additively manufactured Coâ€“Crâ€“Mo alloy using selective electron beam melting for orthopedic implants. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 765, 138270.	2.6	49
20	Microstructure and Wear Properties of Electron Beam Melted Ti-6Al-4V Parts: A Comparison Study against As-Cast Form. Metals, 2016, 6, 284.	1.0	47
21	Geometry dependence of microstructure and microhardness for selective electron beam-melted Tiâ€“6Alâ€“4V parts. Virtual and Physical Prototyping, 2016, 11, 183-191.	5.3	44
22	Effect of Ruthenium on Precipitation Behavior of the Topologically Close-Packed Phase in a Single-Crystal Ni-Based Superalloy During High-Temperature Exposure. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 3608-3614.	1.1	42
23	Scanning optical microscopy for porosity quantification of additively manufactured components. Additive Manufacturing, 2018, 21, 350-358.	1.7	40
24	Improvement of densification and microstructure of ASTM A131 EH36 steel samples additively manufactured via selective laser melting with varying laser scanning speed and hatch spacing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 746, 300-313.	2.6	36
25	Additive manufacturing of multiple materials by selective laser melting: Ti-alloy to stainless steel via a Cu-alloy interlayer. Additive Manufacturing, 2020, 31, 100970.	1.7	33
26	Atom probe tomography of secondary Î³â€² precipitation in a single crystal Ni-based superalloy after isothermal aging at 1100Â°C. Journal of Alloys and Compounds, 2014, 611, 389-394.	2.8	32
27	Measurements of Î³/Î³' Lattice Misfit and Î³' Volume Fraction for a Ru-containing Nickel-based Single Crystal Superalloy. Journal of Materials Science and Technology, 2011, 27, 899-905.	5.6	31
28	Tribochemical Characterization and Tribocorrosive Behavior of CoCrMo Alloys: A Review. Materials, 2018, 11, 30.	1.3	30
29	Intergrowth of P phase with Âµ phase in a Ru-containing single-crystal Ni-based superalloy. Philosophical Magazine Letters, 2012, 92, 556-562.	0.5	29
30	Characterization of topologically close-packed phases in secondary reaction zone in a coated CMSX-4 single crystal Ni-based superalloy. Journal of Materials Science, 2013, 48, 1085-1089.	1.7	27
31	Characterization, mechanical behavior and in vitro evaluation of a melt-drawn scaffold for esophageal tissue engineering. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 57, 246-259.	1.5	27
32	Revealing competitive columnar grain growth behavior and periodic microstructural banding in additively manufactured Ti-6Al-4â€¯V parts by selective electron beam melting. Materialia, 2019, 7, 100365.	1.3	24
33	Spinodal Decomposition Mechanism of Î³â€² Precipitation in a Single Crystal Ni-Based Superalloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 4725-4730.	1.1	22
34	Fabrication and in vitro analysis of tubular scaffolds by melt-drawing for esophageal tissue engineering. Materials Letters, 2015, 159, 424-427.	1.3	22
35	Atom probe tomographic study of L10 martensite in a Pt-modified NiCoCrAlYTa bond coating. Corrosion Science, 2013, 76, 1-5.	3.0	19
36	Improving biotribological properties and corrosion resistance of CoCrMo alloy via a Cr-GLC nanocomposite film in simulated body fluids. Surface and Coatings Technology, 2019, 378, 124840.	2.2	19

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37	Influence of Cr addition on microstructure of a 5% Re-containing single crystal nickel-based superalloy. Transactions of Nonferrous Metals Society of China, 2011, 21, 1004-1008.	1.7	15
38	Application of Electron Beam Melting (EBM) in Additive Manufacturing of an Impeller. , 2014, , .		14
39	Additive Manufacturing of Patient-Customizable Scaffolds for Tubular Tissues Using the Melt-Drawing Method. Materials, 2016, 9, 893.	1.3	13
40	Comparative study on microstructure, bio-tribological behavior and cytocompatibility of Cr-doped amorphous carbon films for Coâ€“Crâ€“Mo artificial lumbar disc. Tribology International, 2021, 155, 106760.	3.0	13
41	Anisotropic Mechanical Properties in a Big-Sized Ti-6Al-4V Plate Fabricated by Electron Beam Melting. , 2016, , 5-12.		11
42	A generalised hot cracking criterion for nickel-based superalloys additively manufactured by electron beam melting. Additive Manufacturing, 2021, 37, 101633.	1.7	11
43	Influence of surface porosity on fatigue life of additively manufactured ASTM A131 EH36 steel. International Journal of Fatigue, 2021, 142, 105894.	2.8	11
44	Deformation induced nanoscale twinning improves strength and ductility in additively manufactured titanium alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 833, 142568.	2.6	11
45	Tribological Properties of Three-Dimensionally Printed Tiâ€“6Alâ€“4V Material Via Electron Beam Melting Process Tested Against 100Cr6 Steel Without and With Hank's Solution. Journal of Tribology, 2018, 140, .	1.0	10
46	Nanometer-scale precipitations in a selective electron beam melted nickel-based superalloy. Scripta Materialia, 2021, 194, 113661.	2.6	9
47	Variation of microstructure by Ru additions in a single crystal Ni based superalloy. Materials Science and Technology, 2014, 30, 289-300.	0.8	8
48	Precipitation of ÃŸ-NiAl/Laves eutectics in a Ru-containing single crystal Ni-Based superalloy. Metals and Materials International, 2015, 21, 222-226.	1.8	8
49	Fatigue behavior of ASTM A131 EH36 steel samples additively manufactured with selective laser melting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 777, 139049.	2.6	8
50	Comparison of wear properties of Ti6Al4V fabricated by wrought and electron beam melting processes in simulated body fluids. Rapid Prototyping Journal, 2020, 26, 959-969.	1.6	7
51	Investigation on the Secondary Reaction Zone Formation of Metallic Bond Coating Layer Produced by High Velocity Oxygen Fuel Deposition in a Ni-Based Single Crystal Superalloy. Journal of Korean Institute of Metals and Materials, 2014, 52, 397-406.	0.4	7
52	Effect of ruthenium on tensile properties of a single crystal Ni-based superalloy. Metals and Materials International, 2012, 18, 769-775.	1.8	6
53	Revealing the microstructural evolution of electron beam powder bed fusion and hot isostatic pressing Ti-6Al-4V in-situ shelling samples using X-ray computed tomography. Additive Manufacturing, 2022, 57, 102962.	1.7	5
54	Microstructure and mechanical properties of ASTM A131 EH36 steel fabricated by laser aided additive manufacturing. Materials Characterization, 2021, 174, 110949.	1.9	4

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55	Anisotropic Mechanical Properties in a Big-Sized Ti-6Al-4V Plate Fabricated by Electron Beam Melting. , 0, , 1-12.		1
56	MICROSTRUCTURAL CHARACTERIZATION OF A Ru--CONTAINING SINGLE CRYSTAL NICKEL--BASED SUPERALLOY. Jinshu Xuebao/Acta Metallurgica Sinica, 2013, 48, 569-574.	0.3	1