Timothy B Sercombe

List of Publications by Year
in descending order

41 papers	3,572 citations	218381 26 h-index	288905 40 g-index
41 all docs	41 docs citations	41 times ranked	3398 citing authors

#	Article	IF	Citations
1	A selective laser melting and solution heat treatment refined Alâ€“12Si alloy with a controllable ultrafine eutectic microstructure and 25% tensile ductility. Acta Materialia, 2015, 95, 74-82.	3.8	518
2	Comparison of the microstructures and mechanical properties of Tiâ€“6Alâ€“4V fabricated by selective laser melting and electron beam melting. Materials and Design, 2016, 95, 21-31.	3.3	508
3	Mechanical behaviour of alginate-gelatin hydrogels for 3D bioprinting. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 79, 150-157.	1.5	262
4	The effect of atmosphere on the structure and properties of a selective laser melted Alâ€“12Si alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 597, 370-375.	2.6	209
5	Liquid phase sintering of aluminium alloys. Materials Chemistry and Physics, 2001, 67, 85-91.	2.0	164
6	Processing and properties of topologically optimised biomedical Tiâ€“24Nbâ€“4Zrâ€“8Sn scaffolds manufactured by selective laser melting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 642, 268-278.	2.6	164
7	Selective laser melting of an Al86Ni6Y4.5Co2La1.5 metallic glass: Processing, microstructure evolution and mechanical properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 606, 370-379.	2.6	134
8	Rapid Manufacturing of Aluminum Components. Science, 2003, 301, 1225-1227.	6.0	130
9	High specific strength and stiffness structures produced using selective laser melting. Materials & Design, 2014, 63, 783-788.	5.1	127
10	Electron Beam Melted Beta-type Tiâ€“24Nbâ€“4Zrâ€“8Sn Porous Structures With High Strength-to-Modulus Ratio. Journal of Materials Science and Technology, 2016, 32, 505-508.	5.6	125
11	Characterisation of hyaluronic acid methylcellulose hydrogels for 3D bioprinting. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 77, 389-399.	1.5	125
12	Heat treatment of Tiâ€6Alâ€7Nb components produced by selective laser melting. Rapid Prototyping Journal, 2008, 14, 300-304.	1.6	107
13	Prototypes for Bone Implant Scaffolds Designed via Topology Optimization and Manufactured by Solid Freeform Fabrication. Advanced Engineering Materials, 2010, 12, 1106-1110.	1.6	103
14	Improved Corrosion Resistance on Selective Laser Melting Produced Ti-5Cu Alloy after Heat Treatment. ACS Biomaterials Science and Engineering, 2018, 4, 2633-2642.	2.6	85
15	Failure modes in high strength and stiffness to weight scaffolds produced by Selective Laser Melting. Materials & Design, 2015, 67, 501-508.	5.1	76
16	On the role of magnesium and nitrogen in the infiltration of aluminium by aluminium for rapid prototyping applications. Acta Materialia, 2004, 52, 3019-3025.	3.8	71
17	Microstructural homogeneity and mechanical behavior of a selective laser melted Ti-35Nb alloy produced from an elemental powder mixture. Journal of Materials Science and Technology, 2021, 61, 221-233.	5.6	67
18	On the use of trace additions of Sn to enhance sintered 2xxx series Al powder alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 268, 32-39.	2.6	58

#	Article	IF	Citations
19	The effect of trace elements on the sintering of Alâ€“Cu alloys. Acta Materialia, 1999, 47, 689-697.	3.8	54
20	Prediction of ceramic fracture with normal distribution pertinent to grain size. Acta Materialia, 2018, 145, 41-48.	3.8	54
21	On the Breakdown of SiC during the Selective Laser Melting of Aluminum Matrix Composites. Advanced Engineering Materials, 2017, 19, 1600835.	1.6	46
22	Selective Laser Melting of Low-Modulus Biomedical Ti-24Nb-4Zr-8Sn Alloy: Effect of Laser Point Distance. Key Engineering Materials, 0, 520, 226-233.	0.4	43
23	Antimicrobial Cu-bearing stainless steel scaffolds. Materials Science and Engineering C, 2016, 68, 519-522.	3.8	39
24	Enhanced corrosion resistance of Ti-5 wt.% TiN composite compared to commercial pure Ti produced by selective laser melting in HCl solution. Journal of Alloys and Compounds, 2020, 820, 153422.	2.8	39
25	Comparison of microstructure and mechanical behavior of Ti-35Nb manufactured by laser powder bed fusion from elemental powder mixture and prealloyed powder. Journal of Materials Science and Technology, 2022, 105, 1-16.	5.6	36
26	Investigation of Interfacial Reaction Products and Stress Distribution in Selective Laser Melted Al12Si/SiC Composite Using Confocal Raman Microscopy. Advanced Engineering Materials, 2016, 18, 1337-1341.	1.6	32
27	Sintering of freeformed maraging steel with boron additions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 363, 242-252.	2.6	27
28	On the sintering of uncompacted, pre-alloyed Al powder alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 341, 163-168.	2.6	26
29	Metal injection moulding of aluminium alloy 6061 with tin. Powder Metallurgy, 2008, 51, 78-83.	0.9	24
30	Antibacterial Titanium Produced Using Selective Laser Melting. Jom, 2017, 69, 2719-2724.	0.9	21
31	Phase separation and properties of Cu-Fe-Cr-Si-C immiscible nanocomposite by laser induction hybrid cladding. Journal of Alloys and Compounds, 2018, 741, 482-488.	2.8	17
32	Process Shrinkage and Accuracy during Indirect Laser Sintering of Aluminium. Advanced Engineering Materials, 2006, 8, 260-264.	1.6	16
33	Elastic moduli of sintered powders with application to components fabricated using selective laser melting. Acta Materialia, 2011, 59, 5257-5265.	3.8	16
34	Freeform fabrication of aluminum metal-matrix composites. Journal of Materials Research, 2001, 16, 2613-2618.	1.2	12
35	The effect of resin type on the sintering of freeformed maraging steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 344, 312-317.	2.6	9
36	The sintering of an Feâ€“Crâ€“Niâ€“Bâ€“C powder. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 528, 751-755.	2.6	9

#	Article	IF	Citations
37	Bioactivity and biodegradability of high temperature sintered 58S ceramics. Journal of the European Ceramic Society, 2022, 42, 3614-3623.	2.8	7
38	Effect of low temperature crystallization on 58S bioactive glass sintering and compressive strength. Ceramics International, 2021, 47, 30349-30357.	2.3	5
39	Sintering of maraging steel with phosphorous additions. Powder Metallurgy, 2005, 48, 47-50.	0.9	3
40	Characterization of Cryogenic Material Properties of 3-D-Printed Superconducting Niobium Using a 3-D Lumped Element Microwave Cavity. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-7.	2.4	3
41	Formation of Aluminum Nitride Coatings at Low Temperature. Advanced Engineering Materials, 2010, 12, 926-928.	1.6	1