Qimin Shi

List of Publications by Year
in descending order

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22	1,306	567144 15	677027 22
papers	citations	h-index	g-index

22	22	22	1168
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Porosity evolution and its thermodynamic mechanism of randomly packed powder-bed during selective laser melting of Inconel 718 alloy. International Journal of Machine Tools and Manufacture, 2017, 116, 96-106.	6.2	205
2	Effects of laser processing parameters on thermal behavior and melting/solidification mechanism during selective laser melting of TiC/Inconel 718 composites. Optics and Laser Technology, 2016, 84, 9-22.	2.2	198
3	Influence of hatch spacing on heat and mass transfer, thermodynamics and laser processability during additive manufacturing of Inconel 718 alloy. International Journal of Machine Tools and Manufacture, 2016, 109, 147-157.	6.2	154
4	Effects of tailored gradient interface on wear properties of WC/Inconel 718 composites using selective laser melting. Surface and Coatings Technology, 2016, 307, 418-427.	2.2	96
5	Selective laser melting 3D printing of Ni-based superalloy: understanding thermodynamic mechanisms. Science Bulletin, 2016, 61, 1013-1022.	4.3	93
6	A Multiscale Understanding of the Thermodynamic and Kinetic Mechanisms of Laser Additive Manufacturing. Engineering, 2017, 3, 675-684.	3.2	86
7	Relation of microstructure, microhardness and underlying thermodynamics in molten pools of laser melting deposition processed TiC/Inconel 625 composites. Journal of Alloys and Compounds, 2017, 692, 758-769.	2.8	85
8	Microstructure and performance evolution and underlying thermal mechanisms of Ni-based parts fabricated by selective laser melting. Additive Manufacturing, 2018, 22, 265-278.	1.7	66
9	On the role of processing parameters in thermal behavior, surface morphology and accuracy during laser 3D printing of aluminum alloy. Journal Physics D: Applied Physics, 2016, 49, 135501.	1.3	59
10	Structural optimization of re-entrant negative Poisson's ratio structure fabricated by selective laser melting. Materials and Design, 2017, 120, 307-316.	3.3	55
11	Relation of thermal behavior and microstructure evolution during multi-track laser melting deposition of Ni-based material. Optics and Laser Technology, 2018, 108, 207-217.	2.2	48
12	In-situ formation of particle reinforced Aluminium matrix composites by laser powder bed fusion of Fe2O3/AlSi12 powder mixture using laser melting/remelting strategy. Journal of Materials Processing Technology, 2022, 299, 117357.	3.1	22
13	The Role of Reinforcing Particle Size in Tailoring Interfacial Microstructure and Wear Performance of Selective Laser Melting WC/Inconel 718 Composites. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2018, 140, .	1.3	21
14	Failure analysis of an in-vivo fractured patient-specific Ti6Al4V mandible reconstruction plate fabricated by selective laser melting. Engineering Failure Analysis, 2021, 124, 105353.	1.8	20
15	Formation mechanism and microstructural and mechanical properties of in-situ Tiâ€“Ni-based composite coatings by laser metal deposition. Surface and Coatings Technology, 2016, 291, 43-53.	2.2	17
16	Biomechanical comparison of locking and non-locking patient-specific mandibular reconstruction plate using finite element analysis. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 124, 104849.	1.5	15
17	In-situ formation of Ti-Mo biomaterials by selective laser melting of Ti/Mo and Ti/Mo2C powder mixtures: A comparative study on microstructure, mechanical and wear performance, and thermal mechanisms. Journal of Materials Science and Technology, 2022, 115, 81-96.	5.6	15
18	Effects of laser melting+remelting on interfacial macrosegregation and resulting microstructure and microhardness of laser additive manufactured H13/IN625 bimetals. Journal of Manufacturing Processes, 2021, 71, 345-355.	2.8	14

#	Article	IF	Citations
19	Silverâ€doped biphasic calcium phosphate/alginate microclusters with antibacterial property and controlled doxorubicin delivery. Journal of Applied Polymer Science, 2021, 138, 50433.	1.3	14
20	Preclinical study of additive manufactured plates with shortened lengths for complete mandible reconstruction: Design, biomechanics simulation, and fixation stability assessment. Computers in Biology and Medicine, 2021, 139, 105008.	3.9	11
21	Photocurable resin-silica composites with low thermal expansion for 3D printing microfluidic components onto printed circuit boards. Materials Today Communications, 2022, 31, 103482.	0.9	7
22	Biomechanical validation of structural optimized patient-specific mandibular reconstruction plate orienting additive manufacturing. Computer Methods and Programs in Biomedicine, 2022, 224, 107023.	2.6	5