Qilin Guo

List of Publications by Year in descending order

23 papers	1,411 citations	516710 16 h-index	580821 25 g-index
25 all docs	25 docs citations	25 times ranked	994 citing authors

#	Article	IF	Citations
1	Transient dynamics of powder spattering in laser powder bed fusion additive manufacturing process revealed by in-situ high-speed high-energy x-ray imaging. Acta Materialia, 2018, 151, 169-180.	7.9	276
2	Pore elimination mechanisms during 3D printing of metals. Nature Communications, 2019, 10, 3088.	12.8	158
3	Defects and anomalies in powder bed fusion metal additive manufacturing. Current Opinion in Solid State and Materials Science, 2022, 26, 100974.	11.5	157
4	Direct observation of pore formation mechanisms during LPBF additive manufacturing process and high energy density laser welding. International Journal of Machine Tools and Manufacture, 2020, 153, 103555.	13.4	143
5	Preparation and thermal properties of short carbon fibers/erythritol phase change materials. Energy Conversion and Management, 2017, 136, 220-228.	9.2	116
6	In-situ characterization and quantification of melt pool variation under constant input energy density in laser powder bed fusion additive manufacturing process. Additive Manufacturing, 2019, 28, 600-609.	3.0	103
7	Revealing particle-scale powder spreading dynamics in powder-bed-based additive manufacturing process by high-speed x-ray imaging. Scientific Reports, 2018, 8, 15079.	3.3	85
8	In-situ full-field mapping of melt flow dynamics in laser metal additive manufacturing. Additive Manufacturing, 2020, 31, 100939.	3.0	69
9	Controlling process instability for defect lean metal additive manufacturing. Nature Communications, 2022, 13, 1079.	12.8	59
10	Types of spatter and their features and formation mechanisms in laser powder bed fusion additive manufacturing process. Additive Manufacturing, 2020, 36, 101438.	3.0	48
11	Bulk-Explosion-Induced Metal Spattering During Laser Processing. Physical Review X, 2019, 9, .	8.9	34
12	Structural responses of metallic glasses under neutron irradiation. Scientific Reports, 2017, 7, 16739.	3.3	28
13	Revealing melt flow instabilities in laser powder bed fusion additive manufacturing of aluminum alloy via in-situ high-speed X-ray imaging. International Journal of Machine Tools and Manufacture, 2022, 175, 103861.	13.4	26
14	Quantitative investigation of gas flow, powder-gas interaction, and powder behavior under different ambient pressure levels in laser powder bed fusion. International Journal of Machine Tools and Manufacture, 2021, 170, 103797.	13.4	21
15	High-speed Synchrotron X-ray Imaging of Laser Powder Bed Fusion Process. Synchrotron Radiation News, 2019, 32, 4-8.	0.8	17
16	Investigating Powder Spreading Dynamics in Additive Manufacturing Processes by In-situ High-speed X-ray Imaging. Synchrotron Radiation News, 2019, 32, 9-13.	0.8	16
17	In-Situ Characterization of Pore Formation Dynamics in Pulsed Wave Laser Powder Bed Fusion. Materials, 2021, 14, 2936.	2.9	13
18	Investigation of dynamic fracture behavior of additively manufactured Al-10Si-Mg using high-speed synchrotron X-ray imaging. Additive Manufacturing, 2019, 30, 100878.	3.0	12

#	Article	IF	Citations
19	Mitigating keyhole pore formation by nanoparticles during laser powder bed fusion additive manufacturing. Additive Manufacturing Letters, 2022, 3, 100068.	2.1	8
20	Effects of Particle Size Distribution with Efficient Packing on Powder Flowability and Selective Laser Melting Process. Materials, 2022, 15, 705.	2.9	7
21	Uncertainties Induced by Processing Parameter Variation in Selective Laser Melting of Ti6Al4V Revealed by In-Situ X-ray Imaging. Materials, 2022, 15, 530.	2.9	6
22	An instrument for in situ characterization of powder spreading dynamics in powder-bed-based additive manufacturing processes. Review of Scientific Instruments, 2022, 93, 043707.	1.3	5
23	Preparation and characterisation of Al2O3film on hollow glass microspheres by the solâ€“gel process. Materials Research Innovations, 2014, 18, S4-524-S4-527.	2.3	1