Philip J Depond

List of Publications by Citations

17 papers	1,695 citations	9 h-index	18 g-index
18 ext. papers	2,257 ext. citations	6.6 avg, IF	4.62 L-index

#	Paper	IF	Citations
17	Additively manufactured hierarchical stainless steels with high strength and ductility. *Nature Materials*, **2018**, 17, 63-71	27	872
16	Denudation of metal powder layers in laser powder bed fusion processes. *Acta Materialia*, **2016**, 114, 33-42	8.4	428
15	Effect of laser power on defect, texture, and microstructure of a laser powder bed fusion processed 316L stainless steel. *Materials and Design*, **2019**, 164, 107534	8.1	113
14	An instrument for in situ time-resolved X-ray imaging and diffraction of laser powder bed fusion additive manufacturing processes. *Review of Scientific Instruments*, **2018**, 89, 055101	1.7	91
13	In situ measurements of layer roughness during laser powder bed fusion additive manufacturing using low coherence scanning interferometry. *Materials and Design*, **2018**, 154, 347-359	8.1	91
12	Subsurface Cooling Rates and Microstructural Response during Laser Based Metal Additive Manufacturing. *Scientific Reports*, **2020**, 10, 1981	4.9	29
11	Laser-Induced Keyhole Defect Dynamics during Metal Additive Manufacturing. *Advanced Engineering Materials*, **2019**, 21, 1900455	3.5	23
10	Detecting keyhole pore defects and monitoring process signatures during laser powder bed fusion: A correlation between in situ pyrometry and ex situ X-ray radiography. *Additive Manufacturing*, **2020**, 35, 101336	6.1	22
9	Cooling dynamics of two titanium alloys during laser powder bed fusion probed with in situ X-ray imaging and diffraction. *Materials and Design*, **2020**, 195, 108987	8.1	11
8	Laser-metal interaction dynamics during additive manufacturing resolved by detection of thermally-induced electron emission. *Communications Materials*, **2020**, 1,	6	5
7	Rapid feedback of chemical vapor deposition growth mechanisms by operando X-ray diffraction. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2018**, 36, 020601	1.3	3
6	Effect of laser power on roughness and porosity in laser powder bed fusion of stainless steel 316L alloys measured by X-ray tomography. *International Journal of Materials Research*, **2020**, 111, 47-54	0.5	2
5	Nondiffractive beam shaping for enhanced optothermal control in metal additive manufacturing. *Science Advances*, **2021**, 7, eabg9358	14.3	2
4	Thermal history and high-speed optical imaging of overhang structures during laser powder bed fusion: A computational and experimental analysis. *Additive Manufacturing*, **2022**, 53, 102669	6.1	2
3	A laser powder bed fusion system for operando synchrotron x-ray imaging and correlative diagnostic experiments at the Stanford Synchrotron Radiation Lightsource.. *Review of Scientific Instruments*, **2022**, 93, 043702	1.7	1
2	Nanoparticle-enhanced absorptivity of copper during laser powder bed fusion. *Additive Manufacturing*, **2022**, 51, 102562	6.1	0
1	Formation mechanisms of boron oxide films fabricated by large-area electron beam-induced deposition of trimethyl borate. *Beilstein Journal of Nanotechnology*, **2018**, 9, 1282-1287	3	0