Diego Manfredi

List of Publications by Year
in descending order

110	5,484	76294	88593
papers	citations	40 h-index	70 g-index

112	112	112	4925
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	In situ alloying of AlSi10Mg-5Âwt% Ni through laser powder bed fusion and subsequent heat treatment. Journal of Alloys and Compounds, 2022, 904, 164081.	2.8	16
2	Homogenization of an Al alloy processed by laser powder bed fusion in-situ alloying. Journal of Alloys and Compounds, 2022, 904, 164079.	2.8	7
3	Low-Power Laser Powder Bed Fusion Processing of ScalmalloyÂ®. Materials, 2022, 15, 3123.	1.3	11
4	Production of Dense Cu-10Sn Part by Laser Powder Bed Fusion with Low Surface Roughness and High Dimensional Accuracy. Materials, 2022, 15, 3352.	1.3	1
5	Living wearables: Bacterial reactive glove. BioSystems, 2022, 218, 104691.	0.9	10
6	Cryogenic material properties of additive manufactured 316L stainless steel. IOP Conference Series: Materials Science and Engineering, 2022, 1241, 012047.	0.3	2
7	Laser Powder Bed Fusion in-situ alloying of Ti-5%Cu alloy: Process-structure relationships. Journal of Alloys and Compounds, 2021, 857, 157558.	2.8	31
8	3D Printing of a Monolithic K/Ka-Band Dual-Circular Polarization Antenna-Feeding Network. IEEE Access, 2021, 9, 88243-88255.	2.6	11
9	Failure mode analysis on compression of lattice structures with internal cooling channels produced by laser powder bed fusion. Advances in Manufacturing, 2021, 9, 403-413.	3.2	3
10	Residual stresses in additively manufactured AlSi10Mg: Raman spectroscopy and X-ray diffraction analysis. Materials and Design, 2021, 202, 109550.	3.3	31
11	Effect of Heat Treatment on Microstructure and Selective Corrosion of LPBF-AlSi10Mg by Means of SKPFM and Exo-Electron Emission. Materials, 2021, 14, 5602.	1.3	5
12	An Automatic on Top Analysis of Single Scan Tracks to Evaluate the Laser Powder Bed Fusion Building Parameters. Materials, 2021, 14, 5171.	1.3	4
13	Enhanced Efficiency and Reduced Side Lobe Level Convex Conformal Reflectarray. Applied Sciences (Switzerland), 2021, 11, 9893.	1.3	5
14	Stress Corrosion Cracking of Additively Manufactured Alloy 625. Materials, 2021, 14, 6115.	1.3	5
15	Short Heat Treatments for the F357 Aluminum Alloy Processed by Laser Powder Bed Fusion. Materials, 2021, 14, 6157.	1.3	7
16	Wear and Corrosion Resistance of AlSi10Mgâ€“CPâ€“Ti Metalâ€“Metal Composite Materials Produced by Electro-Sinter-Forging. Materials, 2021, 14, 6761.	1.3	2
17	Strengthening strategies for an Al alloy processed by in-situ alloying during laser powder bed fusion. Materials and Design, 2021, 212, 110247.	3.3	15
18	Design and characterization of trabecular structures for an anti-icing sandwich panel produced by additive manufacturing. Journal of Sandwich Structures and Materials, 2020, 22, 1111-1131.	2.0	13

#	Article	IF	Citations
19	The role of texturing and microstructure evolution on the tensile behavior of heat-treated Inconel 625 produced via laser powder bed fusion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 769, 138500.	2.6	101
20	Understanding Friction and Wear Behavior at the Nanoscale of Aluminum Matrix Composites Produced by Laser Powder Bed Fusion. Advanced Engineering Materials, 2020, 22, 1900815.	1.6	6
21	Alloying AlSi10Mg and Cu powders in laser Single Scan Tracks, melt spinning, and Laser Powder Bed Fusion. Journal of Alloys and Compounds, 2020, 821, 153538.	2.8	14
22	Effect of heat treatment on microstructure and oxidation properties of Inconel 625 processed by LPBF. Journal of Alloys and Compounds, 2020, 846, 156418.	2.8	29
23	The Influence of the Process Parameters on the Densification and Microstructure Development of Laser Powder Bed Fused Inconel 939. Metals, 2020, 10, 882.	1.0	28
24	Case Study of the Tensile Fracture Investigation of Additive Manufactured Austenitic Stainless Steels Treated at Cryogenic Conditions. Materials, 2020, 13, 3328.	1.3	28
25	Role of the chemical homogenization on the microstructural and mechanical evolution of prolonged heat-treated laser powder bed fused Inconel 625. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 796, 140007.	2.6	21
26	Banded microstructures in rapidly solidified Al-3 wt% Er. Intermetallics, 2020, 119, 106724.	1.8	9
27	A357 Alloy by LPBF for Industry Applications. Materials, 2020, 13, 1488.	1.3	14
28	Evaluation of Corrosion Resistance of Alloy 625 Obtained by Laser Powder Bed Fusion. Journal of the Electrochemical Society, 2019, 166, C3399-C3408.	1.3	24
29	High-performance microwave waveguide devices produced by laser powder bed fusion process. Procedia CIRP, 2019, 79, 85-88.	1.0	11
30	A time-saving and cost-effective method to process alloys by Laser Powder Bed Fusion. Materials and Design, 2019, 181, 107949.	3.3	37
31	Microstructure and Selective Corrosion of Alloy 625 Obtained by Means of Laser Powder Bed Fusion. Materials, 2019, 12, 1742.	1.3	16
32	Statistical approach for electrochemical evaluation of the effect of heat treatments on the corrosion resistance of AlSi10Mg alloy by laser powder bed fusion. Electrochimica Acta, 2019, 305, 459-466.	2.6	39
33	Corrosion behavior of AlSi10Mg alloy produced by laser powder bed fusion under chloride exposure. Corrosion Science, 2019, 152, 101-108.	3.0	41
34	New Aluminum Alloys Specifically Designed for Laser Powder Bed Fusion: A Review. Materials, 2019, 12, 1007.	1.3	162
35	Electromagnetic and mechanical analyses of a 3D-printed ka-band integrated twist and orthomode transducer. , 2019, , .		6
36	Corrosion resistance in chloride solution of the AlSi10Mg alloy obtained by means of LPBF. Surface and Interface Analysis, 2019, 51, 1159-1164.	0.8	15

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37	Influence of cryorolling on properties of L-PBF 316l stainless steel tested at 298K and 77K. Acta Metallurgica Slovaca, 2019, 25, 283-290.	0.3	15
38	Manufacturing of thin wall structures in AlSi10Mg alloy by laser powder bed fusion through process parameters. Journal of Materials Processing Technology, 2018, 255, 773-783.	3.1	52
39	Additive manufacturing of titanium alloys in the biomedical field: processes, properties and applications. Journal of Applied Biomaterials and Functional Materials, 2018, 16, 57-67.	0.7	136
40	TiO2 nanotube-based smart 3D electrodes by anodic oxidation of additively manufactured Ti6Al4V structures. Materials Today Communications, 2018, 15, 165-170.	0.9	4
41	Integration of an <inline-formula> <tex-math notation="LaTeX">H </tex-math> </inline-formula>-Plane Bend, a Twist, and a Filter in Ku/K-Band Through Additive Manufacturing. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 2210-2219.	2.9	46
42	A comparison of Selective Laser Melting with bulk rapid solidification of AlSi10Mg alloy. Journal of Alloys and Compounds, 2018, 742, 271-279.	2.8	123
43	Single scan track analyses on aluminium based powders. Journal of Materials Processing Technology, 2018, 255, 17-25.	3.1	70
44	Additive Manufacturing Technology for High Performances Feed Horn. , 2018, , .		1
45	3D Printing of Ka band Orthomode Transducers. , 2018, , .		7
46	Solution Treatment Study of Inconel 718 Produced by SLM Additive Technique in View of the Oxidation Resistance. Advanced Engineering Materials, 2018, 20, 1800351.	1.6	41
47	Influence of heat treatments on microstructure evolution and mechanical properties of Inconel 625 processed by laser powder bed fusion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 729, 64-75.	2.6	171
48	3-D Printing of High-Performance Feed Horns From Ku- to V-Bands. IEEE Antennas and Wireless Propagation Letters, 2018, 17, 2036-2040.	2.4	32
49	Additive Manufacturing of Ka-Band Dual-Polarization Waveguide Components. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 3589-3596.	2.9	42
50	Corrosion Behavior of Heat-Treated AlSi10Mg Manufactured by Laser Powder Bed Fusion. Materials, 2018, 11, 1051.	1.3	54
51	Development and Characterisation of Aluminium Matrix Nanocomposites AlSi10Mg/MgAl2O4 by Laser Powder Bed Fusion. Metals, 2018, 8, 175.	1.0	24
52	Laser Powder Bed Fusion of a High Strength Al-Si-Zn-Mg-Cu Alloy. Metals, 2018, 8, 300.	1.0	33
53	Investigation of accuracy and dimensional limits of part produced in aluminum alloy by selective laser melting. International Journal of Advanced Manufacturing Technology, 2017, 88, 451-458.	1.5	69
54	Hot deformation behavior of Zr-1%Nb alloy: Flow curve analysis and microstructure observations. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 696, 366-373.	2.6	19

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55	A study of the microstructure and the mechanical properties ofÂanÂAl Si Ni alloy produced via selective laser melting. Journal of Alloys and Compounds, 2017, 695, 1470-1478.	2.8	72
56	About the Use of Recycled or Biodegradable Filaments for Sustainability of 3D Printing. Smart Innovation, Systems and Technologies, 2017, , 776-785.	0.5	73
57	Microstructural and Mechanical Characterization of Aluminum Matrix Composites Produced by Laser Powder Bed Fusion. Advanced Engineering Materials, 2017, 19, 1700180.	1.6	31
58	Selective Laser Melting Manufacturing of Microwave Waveguide Devices. Proceedings of the IEEE, 2017, 105, 620-631.	16.4	108
59	Overview on Additive Manufacturing Technologies. Proceedings of the IEEE, 2017, 105, 593-612.	16.4	402
60	Characterization and Comparison of Inconel 625 Processed by Selective Laser Melting and Laser Metal Deposition. Advanced Engineering Materials, 2017, 19, 1600635.	1.6	128
61	Application of selective laser melting to the manufacturing of antenna-feed chain components. , 2017, , .		1
62	Manufacturing of waveguide components for SatCom through selective laser melting. , 2017, , .		6
63	Integration of RF functionalities in microwave waveguide components through 3D metal printing. , 2017, , .		10
64	Laser powder bed fusion of aluminum, titanium and nickel based alloys: Materials and design investigations. , 2017, , .		1
65	Additive manufacturing of antenna-feed chains. , 2017, , .		3
66	On the Selective Laser Melting (SLM) of the AlSi10Mg Alloy: Process, Microstructure, and Mechanical Properties. Materials, 2017, 10, 76.	1.3	323
67	Effect of Process and Post-Process Conditions on the Mechanical Properties of an A357 Alloy Produced via Laser Powder Bed Fusion. Metals, 2017, 7, 68.	1.0	67
68	A Robust Multifunctional Sandwich Panel Design with Trabecular Structures by the Use of Additive Manufacturing Technology for a New De-Icing System. Technologies, 2017, 5, 35.	3.0	25
69	Additive manufacturing of Ku/Kâ€band waveguide filters: a comparative analysis among selectiveâ€laser melting and stereoâ€lithography. IET Microwaves, Antennas and Propagation, 2017, 11, 1936-1942.	0.7	42
70	LASER POWDER BED FUSION OF ALUMINUM ALLOYS. Acta Metallurgica Slovaca, 2017, 23, 276-282.	0.3	22
71	Corrosion resistance of direct metal laser sintering AlSiMg alloy. Surface and Interface Analysis, 2016, 48, 818-826.	0.8	50
72	3D Printing of Conductive Complex Structures with In Situ Generation of Silver Nanoparticles. Advanced Materials, 2016, 28, 3712-3717.	11.1	200

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73	3D Printing: 3D Printing of Conductive Complex Structures with In Situ Generation of Silver Nanoparticles (Adv. Mater. 19/2016). Advanced Materials, 2016, 28, 3711-3711.	11.1	7
74	Study of Internal Channel Surface Roughnesses Manufactured by Selective Laser Melting in Aluminum and Titanium Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 3837-3844.	1.1	48
75	Effect of heat treatment on corrosion resistance of DMLS AlSi10Mg alloy. Electrochimica Acta, 2016, 206, 346-355.	2.6	105
76	Tribological Behavior of Aluminum Alloy AlSi10Mg-TiB2 Composites Produced by Direct Metal Laser Sintering (DMLS). Journal of Materials Engineering and Performance, 2016, 25, 3152-3160.	1.2	44
77	Microstructural investigation of as-fabricated and heat-treated Inconel 625 and Inconel 718 fabricated by direct metal laser sintering: contribution of Politecnico di Torino and Istituto Italiano di Tecnologia (IIT) di Torino. Metal Powder Report, 2016, 71, 273-278.	0.3	34
78	Evaluation of corrosion resistance of Alâ€“10Siâ€“Mg alloy obtained by means of Direct Metal Laser Sintering. Journal of Materials Processing Technology, 2016, 231, 326-335.	3.1	102
79	Passive heat transfer enhancement by 3D printed Pitot tube based heat sink. International Communications in Heat and Mass Transfer, 2016, 74, 36-39.	2.9	45
80	3D Printed PEG-Based Hybrid Nanocomposites Obtained by Solâ€“Gel Technique. ACS Applied Materials & Interfaces, 2016, 8, 5627-5633.	4.0	81
81	Additive Manufacturing of a Microbial Fuel Cellâ€”A detailed study. Scientific Reports, 2015, 5, 17373.	1.6	71
82	Additive manufacturing for agile legged robots with hydraulic actuation. , 2015, , .		30
83	Enhanced Topology of <formula formulatype="inline"><tex Notation="TeX">E</tex></formula>-Plane Resonators for High-Power Satellite Applications. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 3361-3373.	2.9	41
84	Direct Fabrication of Joints based on Direct Metal Laser Sintering in Aluminum and Titanium Alloys. Procedia CIRP, 2014, 21, 129-132.	1.0	46
85	Nanosized Gold and Silver Spherical, Spiky, and Multi-branched Particles. , 2014, , 179-212.		3
86	Fast and low-cost synthesis of 1D ZnOâ€“TiO2 coreâ€“shell nanoarrays: Characterization and enhanced photo-electrochemical performance for water splitting. Journal of Alloys and Compounds, 2014, 615, S530-S537.	2.8	67
87	Rough surfaces with enhanced heat transfer for electronics cooling by direct metal laser sintering. International Journal of Heat and Mass Transfer, 2014, 75, 58-74.	2.5	159
88	Thick mesoporous TiO 2 films through a solâ€“gel method involving a non-ionic surfactant: Characterization and enhanced performance for water photo-electrolysis. International Journal of Hydrogen Energy, 2014, 39, 21512-21522.	3.8	37
89	On the effect of process parameters on properties of AlSi10Mg parts produced by DMLS. Rapid Prototyping Journal, 2014, 20, 449-458.	1.6	101
90	Shape-Controlled Synthesis of Silver Nature-Like Spiky Particles for Piezoresistive Sensor Applications. European Journal of Inorganic Chemistry, 2014, 2014, 2711-2719.	1.0	1

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91	A sensor for direct measurement of small convective heat fluxes: Validation and application to micro-structured surfaces. Experimental Thermal and Fluid Science, 2014, 55, 42-53.	1.5	23
92	Heat Transfer Enhancement by Finned Heat Sinks with Micro-structured Roughness. Journal of Physics: Conference Series, 2014, 494, 012009.	0.3	16
93	Charge transport improvement employing TiO₂nanotube arrays as front-side illuminated dye-sensitized solar cell photoanodes. Physical Chemistry Chemical Physics, 2013, 15, 2596-2602.	1.3	71
94	Enhancement of electron lifetime in dye-sensitized solar cells using anodically grown TiO2 nanotube/nanoparticle composite photoanodes. Microelectronic Engineering, 2013, 111, 137-142.	1.1	29
95	Effect of the fabrication method on the functional properties of BaTiO3: PVDF nanocomposites. Journal of Materials Science, 2013, 48, 6943-6951.	1.7	34
96	An easy approach for the fabrication of TiO2 nanotube-based transparent photoanodes for Dye-sensitized Solar Cells. Solar Energy, 2013, 95, 90-98.	2.9	45
97	Vertically aligned TiO2 nanotube array for high rate Li-based micro-battery anodes with improved durability. Electrochimica Acta, 2013, 102, 233-239.	2.6	45
98	Influence of process parameters on surface roughness of aluminum parts produced by DMLS. International Journal of Advanced Manufacturing Technology, 2013, 67, 2743-2751.	1.5	372
99	TiO₂Nanotube Array as Efficient Transparent Photoanode in Dye-Sensitized Solar Cell with High Electron Lifetime. Acta Physica Polonica A, 2013, 123, 376-379.	0.2	6
100	From Powders to Dense Metal Parts: Characterization of a Commercial AlSiMg Alloy Processed through Direct Metal Laser Sintering. Materials, 2013, 6, 856-869.	1.3	257
101	High efficiency dye-sensitized solar cells exploiting sponge-like ZnO nanostructures. Physical Chemistry Chemical Physics, 2012, 14, 16203.	1.3	75
102	Synthesis and Characterization of Gold Nanostars as Filler of Tunneling Conductive Polymer Composites. European Journal of Inorganic Chemistry, 2012, 2012, 2669-2673.	1.0	40
103	Human Hand: Kinematics, Statics, and Dynamics. , 2011, , .		16
104	Microstructure and mechanical properties of co-continuous metal/ceramic composites obtained from Reactive Metal Penetration of commercial aluminium alloys into cordierite. Composites Part A: Applied Science and Manufacturing, 2010, 41, 639-645.	3.8	29
105	Towards a hand exoskeleton for a smart EVA glove. , 2010, , .		9
106	SiC-based multilayered composites containing short carbon fibres obtained by tape casting. Composites Science and Technology, 2009, 69, 1772-1776.	3.8	14
107	Preparation and properties of NiAl(Si)/Al2O3 co-continuous composites obtained by reactive metal penetration. Composites Science and Technology, 2009, 69, 1777-1782.	3.8	12
108	NiAl(Si)/Al2O3 co-continuous composites by double reactive metal penetration into silica preforms. Intermetallics, 2008, 16, 580-583.	1.8	10

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109	Additive Manufacturing of Al Alloys and Aluminium Matrix Composites (AMCs). , 0, , .		66
110	Additive Manufacturing of RF Waveguide Components. , 0, , .		3