Dong-dong Gu

List of Publications by Year
in descending order

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187	12,916	25031	29154
papers	citations	57 h-index	104 g-index

188	188	188	5942
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Densification behavior, microstructure evolution, and wear performance of selective laser melting processed commercially pure titanium. Acta Materialia, 2012, 60, 3849-3860.	7.9	838
2	Selective laser melting additive manufacturing of Inconel 718 superalloy parts: Densification, microstructure and properties. Journal of Alloys and Compounds, 2014, 585, 713-721.	5.5	657
3	Material-structure-performance integrated laser-metal additive manufacturing. Science, 2021, 372, .	12.6	594
4	Parametric analysis of thermal behavior during selective laser melting additive manufacturing of aluminum alloy powder. Materials & Design, 2014, 63, 856-867.	5.1	562
5	Balling phenomena in direct laser sintering of stainless steel powder: Metallurgical mechanisms and control methods. Materials & Design, 2009, 30, 2903-2910.	5.1	474
6	Thermal behavior and densification mechanism during selective laser melting of copper matrix composites: Simulation and experiments. Materials & Design, 2014, 55, 482-491.	5.1	235
7	Molten pool behaviour and its physical mechanism during selective laser melting of TiC/AlSi10Mg nanocomposites: simulation and experiments. Journal Physics D: Applied Physics, 2015, 48, 035303.	2.8	224
8	Rapid fabrication of Al-based bulk-form nanocomposites with novel reinforcement and enhanced performance by selective laser melting. Scripta Materialia, 2015, 96, 25-28.	5.2	211
9	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.	13.4	205
10	Nanocrystalline TiC reinforced Ti matrix bulk-form nanocomposites by Selective Laser Melting (SLM): Densification, growth mechanism and wear behavior. Composites Science and Technology, 2011, 71, 1612-1620.	7.8	202
11	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.	4.6	198
12	Tailoring surface quality through mass and momentum transfer modeling using a volume of fluid method in selective laser melting of TiC/AlSi10Mg powder. International Journal of Machine Tools and Manufacture, 2015, 88, 95-107.	13.4	193
13	Selective laser melting of TiC/Ti bulk nanocomposites: Influence of nanoscale reinforcement. Scripta Materialia, 2012, 67, 185-188.	5.2	186
14	Selective laser melting additive manufactured Inconel 718 superalloy parts: High-temperature oxidation property and its mechanisms. Optics and Laser Technology, 2014, 62, 161-171.	4.6	181
15	Influence of thermodynamics within molten pool on migration and distribution state of reinforcement during selective laser melting of AlN/AlSi10Mg composites. International Journal of Machine Tools and Manufacture, 2016, 100, 14-24.	13.4	166
16	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.	13.4	154
17	Selective laser melting of in-situ Al4SiC4 + SiC hybrid reinforced Al matrix composites: Influence of starting SiC particle size. Surface and Coatings Technology, 2015, 272, 15-24.	4.8	153
18	Effects of processing parameters on consolidation and microstructure of Wâ€“Cu components by DMLS. Journal of Alloys and Compounds, 2009, 473, 107-115.	5.5	148

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19	Particulate migration behavior and its mechanism during selective laser melting of TiC reinforced Al matrix nanocomposites. Materials and Design, 2015, 82, 46-55.	7.0	146
20	Balling phenomena during direct laser sintering of multi-component Cu-based metal powder. Journal of Alloys and Compounds, 2007, 432, 163-166.	5.5	137
21	Laser metal deposition of TiC/Inconel 718 composites with tailored interfacial microstructures. Optics and Laser Technology, 2013, 54, 98-109.	4.6	135
22	Laser additive manufacturing of ultrafine TiC particle reinforced Inconel 625 based composite parts: Tailored microstructures and enhanced performance. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 635, 118-128.	5.6	129
23	On the role of powder flow behavior in fluid thermodynamics and laser processability of Ni-based composites by selective laser melting. International Journal of Machine Tools and Manufacture, 2019, 137, 67-78.	13.4	127
24	Laser additive manufacturing of nano-TiC reinforced Ni-based nanocomposites with tailored microstructure and performance. Composites Part B: Engineering, 2019, 163, 585-597.	12.0	125
25	Improving additive manufacturing processability of hard-to-process overhanging structure by selective laser melting. Journal of Materials Processing Technology, 2017, 250, 99-108.	6.3	120
26	Selective Laser Melting Additive Manufacturing of TiC/AlSi10Mg Bulk-form Nanocomposites with Tailored Microstructures and Properties. Physics Procedia, 2014, 56, 108-116.	1.2	117
27	Laser Additive Manufacturing of High-Performance Materials. , 2015, , .		117
28	Selective Laser Melting of in-situ TiC/Ti5Si3 composites with novel reinforcement architecture and elevated performance. Surface and Coatings Technology, 2011, 205, 3285-3292.	4.8	116
29	Finite element simulation and experimental investigation of residual stresses in selective laser melted Tiâ€“Ni shape memory alloy. Computational Materials Science, 2016, 117, 221-232.	3.0	113
30	Microstructure characteristics and formation mechanisms of in situ WC cemented carbide based hardmetals prepared by Selective Laser Melting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 7585-7592.	5.6	108
31	Influence of scan strategy and molten pool configuration on microstructures and tensile properties of selective laser melting additive manufactured aluminum based parts. Optics and Laser Technology, 2018, 99, 91-100.	4.6	108
32	Processing conditions and microstructural features of porous 316L stainless steel components by DMLS. Applied Surface Science, 2008, 255, 1880-1887.	6.1	105
33	Thermal behavior during selective laser melting of commercially pure titanium powder: Numerical simulation and experimental study. Additive Manufacturing, 2014, 1-4, 99-109.	3.0	103
34	Effect of metal vaporization behavior on keyhole-mode surface morphology of selective laser melted composites using different protective atmospheres. Applied Surface Science, 2015, 355, 310-319.	6.1	101
35	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.	4.8	96
36	Selective laser melting 3D printing of Ni-based superalloy: understanding thermodynamic mechanisms. Science Bulletin, 2016, 61, 1013-1022.	9.0	93

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37	Microstructure and composition homogeneity, tensile property, and underlying thermal physical mechanism of selective laser melting tool steel parts. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 682, 279-289.	5.6	91
38	Selective Laser Melting Additive Manufacturing of Ti-Based Nanocomposites: The Role of Nanopowder. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 464-476.	2.2	90
39	Selective laser melting of titanium parts: Influence of laser process parameters on macro- and microstructures and tensile property. Powder Technology, 2019, 342, 371-379.	4.2	90
40	Laser energy absorption behavior of powder particles using ray tracing method during selective laser melting additive manufacturing of aluminum alloy. Materials and Design, 2018, 143, 12-19.	7.0	88
41	Formation of novel graded interface and its function on mechanical properties of WC1â^'x reinforced Inconel 718 composites processed by selective laser melting. Journal of Alloys and Compounds, 2016, 680, 333-342.	5.5	87
42	A Multiscale Understanding of the Thermodynamic and Kinetic Mechanisms of Laser Additive Manufacturing. Engineering, 2017, 3, 675-684.	6.7	86
43	Selective laser melting of advanced Al-Al 2 O 3 nanocomposites: Simulation, microstructure and mechanical properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 698, 162-173.	5.6	85
44	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.	5.5	85
45	Macro and nanoscale wear behaviour of Al-Al 2 O 3 nanocomposites fabricated by selective laser melting. Composites Part B: Engineering, 2017, 127, 26-35.	12.0	83
46	Influence of Particle Size on Laser Absorption and Scanning Track Formation Mechanisms of Pure Tungsten Powder During Selective Laser Melting. Engineering, 2019, 5, 736-745.	6.7	77
47	Anisotropic corrosion behavior of Sc and Zr modified Al-Mg alloy produced by selective laser melting. Corrosion Science, 2020, 170, 108657.	6.6	76
48	Selective laser melting additive manufacturing of pure tungsten: Role of volumetric energy density on densification, microstructure and mechanical properties. International Journal of Refractory Metals and Hard Materials, 2019, 84, 105025.	3.8	73
49	Thermal evolution behavior and fluid dynamics during laser additive manufacturing of Al-based nanocomposites: Underlying role of reinforcement weight fraction. Journal of Applied Physics, 2015, 118, .	2.5	71
50	Selective laser melting of high strength and toughness stainless steel parts: The roles of laser hatch style and part placement strategy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 725, 419-427.	5.6	66
51	Microstructure and performance evolution and underlying thermal mechanisms of Ni-based parts fabricated by selective laser melting. Additive Manufacturing, 2018, 22, 265-278.	3.0	66
52	Selective Laser Melting Additive Manufacturing of Novel Aluminum Based Composites With Multiple Reinforcing Phases. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2015, 137, .	2.2	65
53	Laser absorption behavior of randomly packed powder-bed during selective laser melting of SiC and TiB2 reinforced Al matrix composites. Optics and Laser Technology, 2019, 119, 105600.	4.6	64
54	Microstructure characteristics and its formation mechanism of selective laser melting SiC reinforced Al-based composites. Vacuum, 2019, 160, 189-196.	3.5	63

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55	Direct laser sintered WC-10Co/Cu nanocomposites. Applied Surface Science, 2008, 254, 3971-3978.	6.1	62
56	Densification behavior, microstructure evolution, and wear property of TiC nanoparticle reinforced AlSi10Mg bulk-form nanocomposites prepared by selective laser melting. Journal of Laser Applications, 2015, 27, .	1.7	62
57	Selective laser melting of rare earth element Sc modified aluminum alloy: Thermodynamics of precipitation behavior and its influence on mechanical properties. Additive Manufacturing, 2018, 23, 1-12.	3.0	62
58	Laser additive manufactured WC reinforced Fe-based composites with gradient reinforcement/matrix interface and enhanced performance. Composite Structures, 2018, 192, 387-396.	5.8	61
59	Melt spreading behavior, microstructure evolution and wear resistance of selective laser melting additive manufactured AlN/AlSi10Mg nanocomposite. Surface and Coatings Technology, 2018, 349, 279-288.	4.8	61
60	Formation of scanning tracks during Selective Laser Melting (SLM) of pure tungsten powder: Morphology, geometric features and forming mechanisms. International Journal of Refractory Metals and Hard Materials, 2019, 79, 37-46.	3.8	61
61	Preparation of TiNâ€“Ti5Si3 in-situ composites by Selective Laser Melting. Materials Letters, 2009, 63, 1577-1579.	2.6	60
62	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.	2.8	59
63	Grain refinement in laser manufactured Al-based composites with TiB2 ceramic. Journal of Materials Research and Technology, 2020, 9, 2611-2622.	5.8	59
64	Laser additive manufacturing of bio-inspired lattice structure: Forming quality, microstructure and energy absorption behavior. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 773, 138857.	5.6	58
65	In-situ formation of Ni4Ti3 precipitate and its effect on pseudoelasticity in selective laser melting additive manufactured NiTi-based composites. Applied Surface Science, 2018, 441, 862-870.	6.1	56
66	Structural optimization of re-entrant negative Poisson's ratio structure fabricated by selective laser melting. Materials and Design, 2017, 120, 307-316.	7.0	55
67	Influence of scanning strategy and parameter on microstructural feature, residual stress and performance of Sc and Zr modified Alâ€“Mg alloy produced by selective laser melting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 788, 139593.	5.6	55
68	WCâ€“Co particulate reinforcing Cu matrix composites produced by direct laser sintering. Materials Letters, 2006, 60, 3664-3668.	2.6	53
69	Anisotropic corrosion resistance of TiC reinforced Ni-based composites fabricated by selective laser melting. Journal of Materials Science and Technology, 2019, 35, 1128-1136.	10.7	53
70	Selective laser melting additive manufacturing of TiC/Inconel 718 bulk-form nanocomposites: Densification, microstructure, and performance. Journal of Materials Research, 2014, 29, 1960-1969.	2.6	52
71	Modeling and simulation of the columnar-to-equiaxed transition during laser melting deposition of Invar alloy. Journal of Alloys and Compounds, 2018, 755, 123-134.	5.5	51
72	Microstructure development, tribological property and underlying mechanism of laser additive manufactured submicro-TiB2 reinforced Al-based composites. Journal of Alloys and Compounds, 2020, 819, 152980.	5.5	51

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73	Effects of laser scanning strategies on selective laser melting of pure tungsten. International Journal of Extreme Manufacturing, 2020, 2, 025001.	12.7	50
74	Influence of processing parameters on laser penetration depth and melting/re-melting densification during selective laser melting of aluminum alloy. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	48
75	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.	4.6	48
76	Effects of dispersion technique and component ratio on densification and microstructure of multi-component Cu-based metal powder in direct laser sintering. Journal of Materials Processing Technology, 2007, 182, 564-573.	6.3	47
77	Influence of heat treatment on corrosion behavior of rare earth element Sc modified Al-Mg alloy processed by selective laser melting. Applied Surface Science, 2020, 509, 145330.	6.1	47
78	Influence of Cu-liquid content on densification and microstructure of direct laser sintered submicron Wâ€“Cu/micron Cu powder mixture. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 489, 169-177.	5.6	46
79	Growth morphologies and mechanisms of TiC grains during Selective Laser Melting of Tiâ€“Alâ€“C composite powder. Materials Letters, 2009, 63, 2536-2538.	2.6	45
80	A novel approach to direct preparation of complete lath martensite microstructure in tool steel by selective laser melting. Materials Letters, 2018, 227, 128-131.	2.6	45
81	Laser additive manufacturing of carbon nanotubes (CNTs) reinforced aluminum matrix nanocomposites: Processing optimization, microstructure evolution and mechanical properties. Additive Manufacturing, 2019, 29, 100801.	3.0	45
82	Al2O3 nanoparticles reinforced Fe-Al laser cladding coatings with enhanced mechanical properties. Journal of Alloys and Compounds, 2018, 755, 41-54.	5.5	43
83	Influence of reinforcement weight fraction on microstructure and properties of submicron WCâ€“Cop/Cu bulk MMCs prepared by direct laser sintering. Journal of Alloys and Compounds, 2007, 431, 112-120.	5.5	42
84	Selective laser melting processing of 316L stainless steel: effect of microstructural differences along building direction on corrosion behavior. International Journal of Advanced Manufacturing Technology, 2019, 104, 2669-2679.	3.0	42
85	Laser additive manufacturing of layered TiB2/Ti6Al4V multi-material parts: Understanding thermal behavior evolution. Optics and Laser Technology, 2019, 119, 105666.	4.6	42
86	Microstructure evolution and high-temperature oxidation behaviour of selective laser melted TiC/TiAl composites. Surface and Coatings Technology, 2019, 375, 534-543.	4.8	41
87	Microstructure and property of sub-micro WC-10 %Co particulate reinforced Cu matrix composites prepared by selective laser sintering. Transactions of Nonferrous Metals Society of China, 2006, 16, 357-362.	4.2	40
88	Microstructural characteristics and formation mechanism of direct laser-sintered Cu-based alloys reinforced with Ni particles. Materials & Design, 2009, 30, 2099-2107.	5.1	39
89	Densification, Microstructure, and Wear Property of In Situ Titanium Nitride-Reinforced Titanium Silicide Matrix Composites Prepared by a Novel Selective Laser Melting Process. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 697-708.	2.2	39
90	Laser powder bed fusion of bio-inspired honeycomb structures: Effect of twist angle on compressive behaviors. Thin-Walled Structures, 2021, 159, 107252.	5.3	39

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91	Effect of rare earth oxide addition on microstructures of ultra-fine WCâ€“Co particulate reinforced Cu matrix composites prepared by direct laser sintering. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 445-446, 316-322.	5.6	38
92	High-temperature oxidation performance and its mechanism of TiC/Inconel 625 composites prepared by laser metal deposition additive manufacturing. Journal of Laser Applications, 2015, 27, .	1.7	38
93	Surface modification of 316 stainless steel with platinum for the application of bipolar plates in high performance proton exchange membrane fuel cells. International Journal of Hydrogen Energy, 2017, 42, 2338-2348.	7.1	38
94	Laser metal deposition for additive manufacturing of AA5024 and nanoparticulate TiC modified AA5024 alloy composites prepared with balling milling process. Optics and Laser Technology, 2020, 131, 106438.	4.6	38
95	Influence of additive multilayer feature on thermodynamics, stress and microstructure development during laser 3D printing of aluminum-based material. Science Bulletin, 2017, 62, 779-787.	9.0	37
96	Effect of post heat treatment on microstructure and mechanical properties of Ni-based composites by selective laser melting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 765, 138294.	5.6	37
97	Metallic integrated thermal protection structures inspired by the Norway spruce stem: Design, numerical simulation and selective laser melting fabrication. Optics and Laser Technology, 2019, 115, 9-19.	4.6	37
98	Surface wettability and superhydrophobic characteristics of Ni-based nanocomposites fabricated by selective laser melting. Applied Surface Science, 2019, 476, 151-160.	6.1	37
99	Microstructure evolution, mechanical response and underlying thermodynamic mechanism of multi-phase strengthening WC/Inconel 718 composites using selective laser melting. Journal of Alloys and Compounds, 2018, 747, 684-695.	5.5	36
100	Nitrogen mass transfer and surface layer formation during the active screen plasma nitriding of austenitic stainless steels. Vacuum, 2018, 148, 224-229.	3.5	36
101	Mechanical properties and deformation behavior under compressive loading of selective laser melting processed bio-inspired sandwich structures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 762, 138089.	5.6	36
102	Laser printing path and its influence on molten pool configuration, microstructure and mechanical properties of laser powder bed fusion processed rare earth element modified Al-Mg alloy. Virtual and Physical Prototyping, 2022, 17, 308-328.	10.4	36
103	Influence of laser parameters and complex structural features on the bio-inspired complex thin-wall structures fabricated by selective laser melting. Journal of Materials Processing Technology, 2019, 267, 34-43.	6.3	35
104	Interfacial structure and wear properties of selective laser melted Ti/(TiC+TiN) composites with high content of reinforcements. Journal of Alloys and Compounds, 2021, 870, 159436.	5.5	35
105	Processing and microstructure of submicron WCâ€“Co particulate reinforced Cu matrix composites prepared by direct laser sintering. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 435-436, 54-61.	5.6	34
106	Metallurgical mechanisms in direct laser sintering of Cuâ€“CuSnâ€“CuP mixed powder. Journal of Alloys and Compounds, 2007, 438, 184-189.	5.5	33
107	Laser metal deposition additive manufacturing of TiC/Inconel 625 nanocomposites: Relation of densification, microstructures and performance. Journal of Materials Research, 2015, 30, 3616-3628.	2.6	32
108	Effect of the Thermodynamic Behavior of Selective Laser Melting on the Formation of In situ Oxide Dispersion-Strengthened Aluminum-Based Composites. Metals, 2016, 6, 286.	2.3	32

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109	Fragmentation and refinement behavior and underlying thermodynamic mechanism of WC reinforcement during selective laser melting of Ni-based composites. Journal of Alloys and Compounds, 2019, 777, 693-702.	5.5	32
110	Laser 3D printed bio-inspired impact resistant structure: failure mechanism under compressive loading. Virtual and Physical Prototyping, 2020, 15, 75-86.	10.4	32
111	Mesoscopic study of thermal behavior, fluid dynamics and surface morphology during selective laser melting of Ti-based composites. Computational Materials Science, 2020, 177, 109598.	3.0	32
112	Effect of process parameters on the microstructure and mechanical properties of AA2024 fabricated using selective laser melting. International Journal of Advanced Manufacturing Technology, 2021, 112, 175-192.	3.0	32
113	Optimization of bio-inspired bi-directionally corrugated panel impact-resistance structures: Numerical simulation and selective laser melting process. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 91, 59-67.	3.1	31
114	Multi-material additive manufacturing of a bio-inspired layered ceramic/metal structure: Formation mechanisms and mechanical properties. International Journal of Machine Tools and Manufacture, 2022, 175, 103872.	13.4	30
115	Selective Laser Melting Additive Manufacturing of Hard-to-Process Tungsten-Based Alloy Parts With Novel Crystalline Growth Morphology and Enhanced Performance. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2016, 138, .	2.2	29
116	Thermodynamic behaviour and formation mechanism of novel titanium carbide dendritic crystals within a molten pool of selective laser melting TiC/Tiâ€“Ni composites. CrystEngComm, 2017, 19, 1089-1099.	2.6	29
117	Selective laser melting of graphene reinforced titanium matrix composites: Powder preparation and its formability. Advanced Powder Technology, 2021, 32, 1426-1437.	4.1	29
118	Materials creation adds new dimensions to 3D printing. Science Bulletin, 2016, 61, 1718-1722.	9.0	28
119	Selective laser melted TiB2/Ti6Al4V graded materials and first-principle calculations. Materials Letters, 2019, 254, 33-36.	2.6	28
120	Carbon Nanotubes Enabled Laser 3D Printing of High-Performance Titanium with Highly Concentrated Reinforcement. IScience, 2020, 23, 101498.	4.1	28
121	Formation mechanisms of TiB2 tracks on Ti6Al4V alloy during selective laser melting of ceramic-metal multi-material. Powder Technology, 2020, 367, 597-607.	4.2	28
122	Novel WC-reinforced iron-based composites with excellent mechanical properties synthesized by laser additive manufacturing: Underlying role of reinforcement weight fraction. Journal of Materials Processing Technology, 2021, 289, 116959.	6.3	28
123	Synthesis of nanocrystalline TiC reinforced W nanocomposites by high-energy mechanical alloying: Microstructural evolution and its mechanism. Applied Surface Science, 2013, 273, 364-371.	6.1	27
124	Selective growth of Ni4Ti3 precipitate variants induced by complicated cyclic stress during laser additive manufacturing of NiTi-based composites. Materials Characterization, 2018, 143, 191-196.	4.4	27
125	Additively manufacturing-enabled hierarchical NiTi-based shape memory alloys with high strength and toughness. Virtual and Physical Prototyping, 2021, 16, S19-S38.	10.4	27
126	Laser Metal Deposition Additive Manufacturing of TiC Reinforced Inconel 625 Composites: Influence of the Additive TiC Particle and Its Starting Size. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2017, 139, .	2.2	26

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127	Selective laser melting additive manufacturing of cancer pagurusâ€™s claw inspired bionic structures with high strength and toughness. Applied Surface Science, 2019, 469, 647-656.	6.1	25
128	Laser additive manufactured high-performance Fe-based composites with unique strengthening structure. Journal of Materials Science and Technology, 2021, 89, 242-252.	10.7	25
129	Influence of processing parameters on particulate dispersion in direct laser sintered WCâ€“Cop/Cu MMCs. International Journal of Refractory Metals and Hard Materials, 2008, 26, 411-422.	3.8	24
130	Novel Crystal Growth of In Situ <scp>WC</scp> in Selective Laserâ€Melted <scp><scp>W</scp></scp>â€“<scp><scp>C</scp></scp>â€“<scp><scp>Ni</scp></scp> Ternary System. Journal of the American Ceramic Society, 2014, 97, 684-687.	3.8	24
131	Direct metal laser sintering synthesis of carbon nanotube reinforced Ti matrix composites: Densification, distribution characteristics and properties. Journal of Materials Research, 2016, 31, 281-291.	2.6	24
132	Selective laser melting additive manufacturing of in situ Al₂Si₄O₁₀/Al composites: Microstructural characteristics and mechanical properties. Journal of Composite Materials, 2017, 51, 519-532.	2.4	23
133	Selective laser melting of silver submicron powder modified 316L stainless steel: Influence of silver addition on microstructures and performances. Powder Technology, 2020, 364, 478-483.	4.2	23
134	Role of laser scan strategies in defect control, microstructural evolution and mechanical properties of steel matrix composites prepared by laser additive manufacturing. International Journal of Minerals, Metallurgy and Materials, 2021, 28, 462-474.	4.9	23
135	Thermal behavior and fluid dynamics within molten pool during laser inside additive manufacturing of 316L stainless steel coating on inner surface of steel tube. Optics and Laser Technology, 2021, 138, 106917.	4.6	23
136	Selective laser melting of novel nanocomposites parts with enhanced tribological performance. Virtual and Physical Prototyping, 2013, 8, 11-18.	10.4	22
137	Role of melt behavior in modifying oxidation distribution using an interface incorporated model in selective laser melting of aluminum-based material. Journal of Applied Physics, 2016, 120, .	2.5	21
138	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, .	2.2	21
139	Combined strengthening of multi-phase and graded interface in laser additive manufactured TiC/Inconel 718 composites. Journal Physics D: Applied Physics, 2014, 47, 045309.	2.8	20
140	Effect of metallurgical defect and phase transition on geometric accuracy and wear resistance of iron-based parts fabricated by selective laser melting. Journal of Materials Research, 2016, 31, 1477-1490.	2.6	20
141	Development of interfacial stress during selective laser melting of TiC reinforced TiAl composites: Influence of geometric feature of reinforcement. Materials and Design, 2018, 157, 1-11.	7.0	20
142	Microstructure and tribological property of selective laser melted Ni-based composites using different scanning strategies. Vacuum, 2020, 177, 109439.	3.5	20
143	Compressive Properties of Bioâ€Inspired Reticulated Shell Structures Processed by Selective Laser Melting. Advanced Engineering Materials, 2019, 21, 1801168.	3.5	19
144	Effect of Trace Addition of Ceramic on Microstructure Development and Mechanical Properties of Selective Laser Melted AlSi10Mg Alloy. Chinese Journal of Mechanical Engineering (English Edition), 2020, 33, .	3.7	19

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145	Heat-induced molten pool boundary softening behavior and its effect on tensile properties of laser additive manufactured aluminum alloy. Vacuum, 2018, 154, 341-350.	3.5	18
146	Achieving high strength and high ductility in WC-reinforced iron-based composites by laser additive manufacturing. Additive Manufacturing, 2020, 35, 101195.	3.0	18
147	Microstructures and properties of direct laser sintered tungsten carbide (WC) particle reinforced Cu matrix composites with REâ€“Siâ€“Fe addition: A comparative study. Journal of Materials Research, 2009, 24, 3397-3406.	2.6	17
148	Structural evolution and formation mechanisms of TiC/Ti nanocomposites prepared by high-energy mechanical alloying. Journal Physics D: Applied Physics, 2010, 43, 135402.	2.8	17
149	Laser Additive Manufacturing (AM): Classification, Processing Philosophy, and Metallurgical Mechanisms. , 2015, , 15-71.		17
150	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.	4.8	17
151	Influence of substrate surface morphology on wetting behavior of tracks during selective laser melting of aluminum-based alloys. Journal of Zhejiang University: Science A, 2018, 19, 111-121.	2.4	16
152	In situ synthesized TiC/Ti5Si3 nanocomposites by high-energy mechanical alloying: Microstructural development and its mechanism. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 6340-6345.	5.6	15
153	Aluminum-based nanocomposites with hybrid reinforcements prepared by mechanical alloying and selective laser melting consolidation. Journal of Materials Research, 2015, 30, 2816-2828.	2.6	15
154	Roadmap for Additive Manufacturing: Toward Intellectualization and Industrialization. , 2022, 1, 100014.		15
155	Laser Additive Manufacturing of Novel Aluminum Based Nanocomposite Parts: Tailored Forming of Multiple Materials. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2016, 138, .	2.2	14
156	Effects of processing parameters on densification behavior, microstructure evolution and mechanical properties of Wâ€“Ti alloy fabricated by laser powder bed fusion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 829, 142177.	5.6	14
157	Nanocrystalline tungstenâ€“nickel heavy alloy reinforced by in-situ tungsten carbide: Mechanical alloying preparation and microstructural evolution. International Journal of Refractory Metals and Hard Materials, 2013, 37, 45-51.	3.8	13
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