

Dong-dong Gu

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183 papers	8,731 citations	49 h-index	87 g-index
188 ext. papers	10,853 ext. citations	5.2 avg, IF	7.05 L-index

#	Paper	IF	Citations
183	Densification behavior, microstructure evolution, and wear performance of selective laser melting processed commercially pure titanium. <i>Acta Materialia</i> , 2012 , 60, 3849-3860	8.4	648
182	Selective laser melting additive manufacturing of Inconel 718 superalloy parts: Densification, microstructure and properties. <i>Journal of Alloys and Compounds</i> , 2014 , 585, 713-721	5.7	514
181	Parametric analysis of thermal behavior during selective laser melting additive manufacturing of aluminum alloy powder. <i>Materials & Design</i> , 2014 , 63, 856-867		412
180	Balling phenomena in direct laser sintering of stainless steel powder: Metallurgical mechanisms and control methods. <i>Materials & Design</i> , 2009 , 30, 2903-2910		351
179	Thermal behavior and densification mechanism during selective laser melting of copper matrix composites: Simulation and experiments. <i>Materials & Design</i> , 2014 , 55, 482-491		195
178	Molten pool behaviour and its physical mechanism during selective laser melting of TiC/AlSi10Mg nanocomposites: simulation and experiments. <i>Journal Physics D: Applied Physics</i> , 2015 , 48, 035303	3	164
177	Rapid fabrication of Al-based bulk-form nanocomposites with novel reinforcement and enhanced performance by selective laser melting. <i>Scripta Materialia</i> , 2015 , 96, 25-28	5.6	159
176	Nanocrystalline TiC reinforced Ti matrix bulk-form nanocomposites by Selective Laser Melting (SLM): Densification, growth mechanism and wear behavior. <i>Composites Science and Technology</i> , 2011 , 71, 1612-1620	8.6	157
175	Selective laser melting of TiC/Ti bulk nanocomposites: Influence of nanoscale reinforcement. <i>Scripta Materialia</i> , 2012 , 67, 185-188	5.6	150
174	Porosity evolution and its thermodynamic mechanism of randomly packed powder-bed during selective laser melting of Inconel 718 alloy. <i>International Journal of Machine Tools and Manufacture</i> , 2017 , 116, 96-106	9.4	147
173	Tailoring surface quality through mass and momentum transfer modeling using a volume of fluid method in selective laser melting of TiC/AlSi10Mg powder. <i>International Journal of Machine Tools and Manufacture</i> , 2015 , 88, 95-107	9.4	144
172	Effects of laser processing parameters on thermal behavior and melting/solidification mechanism during selective laser melting of TiC/Inconel 718 composites. <i>Optics and Laser Technology</i> , 2016 , 84, 9-22	4.2	140
171	Selective laser melting additive manufactured Inconel 718 superalloy parts: High-temperature oxidation property and its mechanisms. <i>Optics and Laser Technology</i> , 2014 , 62, 161-171	4.2	139
170	Material-structure-performance integrated laser-metal additive manufacturing. <i>Science</i> , 2021 , 372,	33.3	128
169	Influence of thermodynamics within molten pool on migration and distribution state of reinforcement during selective laser melting of AlN/AlSi10Mg composites. <i>International Journal of Machine Tools and Manufacture</i> , 2016 , 100, 14-24	9.4	122
168	Effects of processing parameters on consolidation and microstructure of W/Cu components by DMLS. <i>Journal of Alloys and Compounds</i> , 2009 , 473, 107-115	5.7	119
167	Particulate migration behavior and its mechanism during selective laser melting of TiC reinforced Al matrix nanocomposites. <i>Materials and Design</i> , 2015 , 82, 46-55	8.1	110

166	Selective laser melting of in-situ Al ₄ SiC ₄ + SiC hybrid reinforced Al matrix composites: Influence of starting SiC particle size. <i>Surface and Coatings Technology</i> , 2015 , 272, 15-24	4.4	109
165	Influence of hatch spacing on heat and mass transfer, thermodynamics and laser processability during additive manufacturing of Inconel 718 alloy. <i>International Journal of Machine Tools and Manufacture</i> , 2016 , 109, 147-157	9.4	108
164	Balling phenomena during direct laser sintering of multi-component Cu-based metal powder. <i>Journal of Alloys and Compounds</i> , 2007 , 432, 163-166	5.7	108
163	Laser metal deposition of TiC/Inconel 718 composites with tailored interfacial microstructures. <i>Optics and Laser Technology</i> , 2013 , 54, 98-109	4.2	97
162	Selective Laser Melting Additive Manufacturing of TiC/AlSi10Mg Bulk-form Nanocomposites with Tailored Microstructures and Properties. <i>Physics Procedia</i> , 2014 , 56, 108-116		91
161	Selective Laser Melting of in-situ TiC/Ti ₅ Si ₃ composites with novel reinforcement architecture and elevated performance. <i>Surface and Coatings Technology</i> , 2011 , 205, 3285-3292	4.4	91
160	Laser additive manufacturing of ultrafine TiC particle reinforced Inconel 625 based composite parts: Tailored microstructures and enhanced performance. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 635, 118-128	5.3	90
159	Processing conditions and microstructural features of porous 316L stainless steel components by DMLS. <i>Applied Surface Science</i> , 2008 , 255, 1880-1887	6.7	86
158	Thermal behavior during selective laser melting of commercially pure titanium powder: Numerical simulation and experimental study. <i>Additive Manufacturing</i> , 2014 , 1-4, 99-109	6.1	85
157	On the role of powder flow behavior in fluid thermodynamics and laser processability of Ni-based composites by selective laser melting. <i>International Journal of Machine Tools and Manufacture</i> , 2019 , 137, 67-78	9.4	83
156	Finite element simulation and experimental investigation of residual stresses in selective laser melted TiNi shape memory alloy. <i>Computational Materials Science</i> , 2016 , 117, 221-232	3.2	80
155	Microstructure characteristics and formation mechanisms of in situ WC cemented carbide based hardmetals prepared by Selective Laser Melting. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 7585-7592	5.3	80
154	Effect of metal vaporization behavior on keyhole-mode surface morphology of selective laser melted composites using different protective atmospheres. <i>Applied Surface Science</i> , 2015 , 355, 310-319	6.7	77
153	Laser Additive Manufacturing of High-Performance Materials 2015 ,		77
152	Influence of scan strategy and molten pool configuration on microstructures and tensile properties of selective laser melting additive manufactured aluminum based parts. <i>Optics and Laser Technology</i> , 2018 , 99, 91-100	4.2	76
151	Laser additive manufacturing of nano-TiC reinforced Ni-based nanocomposites with tailored microstructure and performance. <i>Composites Part B: Engineering</i> , 2019 , 163, 585-597	10	74
150	Selective laser melting of advanced Al-Al ₂ O ₃ nanocomposites: Simulation, microstructure and mechanical properties. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 698, 162-173	5.3	71
149	Selective laser melting 3D printing of Ni-based superalloy: understanding thermodynamic mechanisms. <i>Science Bulletin</i> , 2016 , 61, 1013-1022	10.6	71

148	Effects of tailored gradient interface on wear properties of WC/Inconel 718 composites using selective laser melting. <i>Surface and Coatings Technology</i> , 2016 , 307, 418-427	4.4	71
147	Macro and nanoscale wear behaviour of Al-Al ₂ O ₃ nanocomposites fabricated by selective laser melting. <i>Composites Part B: Engineering</i> , 2017 , 127, 26-35	10	70
146	Improving additive manufacturing processability of hard-to-process overhanging structure by selective laser melting. <i>Journal of Materials Processing Technology</i> , 2017 , 250, 99-108	5.3	70
145	Selective Laser Melting Additive Manufacturing of Ti-Based Nanocomposites: The Role of Nanopowder. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014 , 45, 464-476	2.3	69
144	Microstructure and composition homogeneity, tensile property, and underlying thermal physical mechanism of selective laser melting tool steel parts. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 682, 279-289	5.3	65
143	Formation of novel graded interface and its function on mechanical properties of WC10 reinforced Inconel 718 composites processed by selective laser melting. <i>Journal of Alloys and Compounds</i> , 2016 , 680, 333-342	5.7	63
142	A Multiscale Understanding of the Thermodynamic and Kinetic Mechanisms of Laser Additive Manufacturing. <i>Engineering</i> , 2017 , 3, 675-684	9.7	61
141	Relation of microstructure, microhardness and underlying thermodynamics in molten pools of laser melting deposition processed TiC/Inconel 625 composites. <i>Journal of Alloys and Compounds</i> , 2017 , 692, 758-769	5.7	60
140	Thermal evolution behavior and fluid dynamics during laser additive manufacturing of Al-based nanocomposites: Underlying role of reinforcement weight fraction. <i>Journal of Applied Physics</i> , 2015 , 118, 233109	2.5	56
139	Selective Laser Melting Additive Manufacturing of Novel Aluminum Based Composites With Multiple Reinforcing Phases. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2015 , 137,	3.3	54
138	Direct laser sintered WC-10Co/Cu nanocomposites. <i>Applied Surface Science</i> , 2008 , 254, 3971-3978	6.7	52
137	Selective laser melting of titanium parts: Influence of laser process parameters on macro- and microstructures and tensile property. <i>Powder Technology</i> , 2019 , 342, 371-379	5.2	52
136	Laser energy absorption behavior of powder particles using ray tracing method during selective laser melting additive manufacturing of aluminum alloy. <i>Materials and Design</i> , 2018 , 143, 12-19	8.1	51
135	Microstructure and performance evolution and underlying thermal mechanisms of Ni-based parts fabricated by selective laser melting. <i>Additive Manufacturing</i> , 2018 , 22, 265-278	6.1	51
134	Preparation of TiN/Ti ₅ Si ₃ in-situ composites by Selective Laser Melting. <i>Materials Letters</i> , 2009 , 63, 1577-1579	3.5	48
133	WC ₁₀ particulate reinforcing Cu matrix composites produced by direct laser sintering. <i>Materials Letters</i> , 2006 , 60, 3664-3668	3.3	48
132	Selective laser melting of rare earth element Sc modified aluminum alloy: Thermodynamics of precipitation behavior and its influence on mechanical properties. <i>Additive Manufacturing</i> , 2018 , 23, 1-12	6.1	47
131	Densification behavior, microstructure evolution, and wear property of TiC nanoparticle reinforced AlSi10Mg bulk-form nanocomposites prepared by selective laser melting. <i>Journal of Laser Applications</i> , 2015 , 27, S17003	2.1	46

130	Formation of scanning tracks during Selective Laser Melting (SLM) of pure tungsten powder: Morphology, geometric features and forming mechanisms. <i>International Journal of Refractory Metals and Hard Materials</i> , 2019 , 79, 37-46	4.1	45
129	Influence of Cu-liquid content on densification and microstructure of direct laser sintered submicron WCu/micron Cu powder mixture. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008 , 489, 169-177	5.3	41
128	On the role of processing parameters in thermal behavior, surface morphology and accuracy during laser 3D printing of aluminum alloy. <i>Journal Physics D: Applied Physics</i> , 2016 , 49, 135501	3	41
127	Selective laser melting additive manufacturing of pure tungsten: Role of volumetric energy density on densification, microstructure and mechanical properties. <i>International Journal of Refractory Metals and Hard Materials</i> , 2019 , 84, 105025	4.1	40
126	Selective laser melting additive manufacturing of TiC/Inconel 718 bulk-form nanocomposites: Densification, microstructure, and performance. <i>Journal of Materials Research</i> , 2014 , 29, 1960-1969	2.5	40
125	Growth morphologies and mechanisms of TiC grains during Selective Laser Melting of TiAl composite powder. <i>Materials Letters</i> , 2009 , 63, 2536-2538	3.3	40
124	Effects of dispersion technique and component ratio on densification and microstructure of multi-component Cu-based metal powder in direct laser sintering. <i>Journal of Materials Processing Technology</i> , 2007 , 182, 564-573	5.3	40
123	Structural optimization of re-entrant negative Poisson's ratio structure fabricated by selective laser melting. <i>Materials and Design</i> , 2017 , 120, 307-316	8.1	39
122	Selective laser melting of high strength and toughness stainless steel parts: The roles of laser hatch style and part placement strategy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018 , 725, 419-427	5.3	39
121	Influence of reinforcement weight fraction on microstructure and properties of submicron WCu/Cu bulk MMCs prepared by direct laser sintering. <i>Journal of Alloys and Compounds</i> , 2007 , 431, 112-120	5.7	39
120	Microstructure characteristics and its formation mechanism of selective laser melting SiC reinforced Al-based composites. <i>Vacuum</i> , 2019 , 160, 189-196	3.7	39
119	Melt spreading behavior, microstructure evolution and wear resistance of selective laser melting additive manufactured AlN/AlSi10Mg nanocomposite. <i>Surface and Coatings Technology</i> , 2018 , 349, 279-288	4.4	38
118	Microstructure and property of sub-micro WC-10 %Co particulate reinforced Cu matrix composites prepared by selective laser sintering. <i>Transactions of Nonferrous Metals Society of China</i> , 2006 , 16, 357-362	3.3	37
117	Laser additive manufactured WC reinforced Fe-based composites with gradient reinforcement/matrix interface and enhanced performance. <i>Composite Structures</i> , 2018 , 192, 387-396	5.3	36
116	Anisotropic corrosion behavior of Sc and Zr modified Al-Mg alloy produced by selective laser melting. <i>Corrosion Science</i> , 2020 , 170, 108657	6.8	36
115	Anisotropic corrosion resistance of TiC reinforced Ni-based composites fabricated by selective laser melting. <i>Journal of Materials Science and Technology</i> , 2019 , 35, 1128-1136	9.1	35
114	In-situ formation of Ni ₄ Ti ₃ precipitate and its effect on pseudoelasticity in selective laser melting additive manufactured NiTi-based composites. <i>Applied Surface Science</i> , 2018 , 441, 862-870	6.7	34
113	Influence of processing parameters on laser penetration depth and melting/re-melting densification during selective laser melting of aluminum alloy. <i>Applied Physics A: Materials Science and Processing</i> , 2016 , 122, 1	2.6	34

112	Relation of thermal behavior and microstructure evolution during multi-track laser melting deposition of Ni-based material. <i>Optics and Laser Technology</i> , 2018 , 108, 207-217	4.2	34
111	Laser absorption behavior of randomly packed powder-bed during selective laser melting of SiC and TiB ₂ reinforced Al matrix composites. <i>Optics and Laser Technology</i> , 2019 , 119, 105600	4.2	33
110	Influence of Particle Size on Laser Absorption and Scanning Track Formation Mechanisms of Pure Tungsten Powder During Selective Laser Melting. <i>Engineering</i> , 2019 , 5, 736-745	9.7	32
109	Al ₂ O ₃ nanoparticles reinforced Fe-Al laser cladding coatings with enhanced mechanical properties. <i>Journal of Alloys and Compounds</i> , 2018 , 755, 41-54	5.7	31
108	Microstructural characteristics and formation mechanism of direct laser-sintered Cu-based alloys reinforced with Ni particles. <i>Materials & Design</i> , 2009 , 30, 2099-2107		30
107	Metallurgical mechanisms in direct laser sintering of Cu ₆₀ Sn ₄₀ P mixed powder. <i>Journal of Alloys and Compounds</i> , 2007 , 438, 184-189	5.7	30
106	Influence of additive multilayer feature on thermodynamics, stress and microstructure development during laser 3D printing of aluminum-based material. <i>Science Bulletin</i> , 2017 , 62, 779-787	10.6	29
105	Densification, Microstructure, and Wear Property of In Situ Titanium Nitride-Reinforced Titanium Silicide Matrix Composites Prepared by a Novel Selective Laser Melting Process. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012 , 43, 697-708	2.3	29
104	Processing and microstructure of submicron WC ₁₀ particulate reinforced Cu matrix composites prepared by direct laser sintering. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006 , 435-436, 54-61	5.3	29
103	Modeling and simulation of the columnar-to-equiaxed transition during laser melting deposition of Invar alloy. <i>Journal of Alloys and Compounds</i> , 2018 , 755, 123-134	5.7	28
102	A novel approach to direct preparation of complete lath martensite microstructure in tool steel by selective laser melting. <i>Materials Letters</i> , 2018 , 227, 128-131	3.3	28
101	Effect of rare earth oxide addition on microstructures of ultra-fine WC ₁₀ particulate reinforced Cu matrix composites prepared by direct laser sintering. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007 , 445-446, 316-322	5.3	28
100	Nitrogen mass transfer and surface layer formation during the active screen plasma nitriding of austenitic stainless steels. <i>Vacuum</i> , 2018 , 148, 224-229	3.7	28
99	Laser additive manufacturing of bio-inspired lattice structure: Forming quality, microstructure and energy absorption behavior. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020 , 773, 138857	5.3	27
98	Surface wettability and superhydrophobic characteristics of Ni-based nanocomposites fabricated by selective laser melting. <i>Applied Surface Science</i> , 2019 , 476, 151-160	6.7	27
97	High-temperature oxidation performance and its mechanism of TiC/Inconel 625 composites prepared by laser metal deposition additive manufacturing. <i>Journal of Laser Applications</i> , 2015 , 27, S17005	2.1	26
96	Microstructure development, tribological property and underlying mechanism of laser additive manufactured submicro-TiB ₂ reinforced Al-based composites. <i>Journal of Alloys and Compounds</i> , 2020 , 819, 152980	5.7	26
95	Influence of heat treatment on corrosion behavior of rare earth element Sc modified Al-Mg alloy processed by selective laser melting. <i>Applied Surface Science</i> , 2020 , 509, 145330	6.7	25

94	Effect of the Thermodynamic Behavior of Selective Laser Melting on the Formation of In situ Oxide Dispersion-Strengthened Aluminum-Based Composites. <i>Metals</i> , 2016 , 6, 286	2.3	25
93	Effects of laser scanning strategies on selective laser melting of pure tungsten. <i>International Journal of Extreme Manufacturing</i> , 2020 , 2, 025001	7.9	24
92	Laser additive manufacturing of carbon nanotubes (CNTs) reinforced aluminum matrix nanocomposites: Processing optimization, microstructure evolution and mechanical properties. <i>Additive Manufacturing</i> , 2019 , 29, 100801	6.1	24
91	Microstructure evolution and high-temperature oxidation behaviour of selective laser melted TiC/TiAl composites. <i>Surface and Coatings Technology</i> , 2019 , 375, 534-543	4.4	24
90	Surface modification of 316 stainless steel with platinum for the application of bipolar plates in high performance proton exchange membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 2338-2348	6.7	24
89	Grain refinement in laser manufactured Al-based composites with TiB ₂ ceramic. <i>Journal of Materials Research and Technology</i> , 2020 , 9, 2611-2622	5.5	23
88	Microstructure evolution, mechanical response and underlying thermodynamic mechanism of multi-phase strengthening WC/Inconel 718 composites using selective laser melting. <i>Journal of Alloys and Compounds</i> , 2018 , 747, 684-695	5.7	23
87	Synthesis of nanocrystalline TiC reinforced W nanocomposites by high-energy mechanical alloying: Microstructural evolution and its mechanism. <i>Applied Surface Science</i> , 2013 , 273, 364-371	6.7	23
86	Mechanical properties and deformation behavior under compressive loading of selective laser melting processed bio-inspired sandwich structures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 762, 138089	5.3	22
85	Laser metal deposition additive manufacturing of TiC/Inconel 625 nanocomposites: Relation of densification, microstructures and performance. <i>Journal of Materials Research</i> , 2015 , 30, 3616-3628	2.5	22
84	Influence of scanning strategy and parameter on microstructural feature, residual stress and performance of Sc and Zr modified AlMg alloy produced by selective laser melting. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020 , 788, 139593	5.3	22
83	Influence of laser parameters and complex structural features on the bio-inspired complex thin-wall structures fabricated by selective laser melting. <i>Journal of Materials Processing Technology</i> , 2019 , 267, 34-43	5.3	22
82	Materials creation adds new dimensions to 3D printing. <i>Science Bulletin</i> , 2016 , 61, 1718-1722	10.6	21
81	Selective Laser Melting Additive Manufacturing of Hard-to-Process Tungsten-Based Alloy Parts With Novel Crystalline Growth Morphology and Enhanced Performance. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2016 , 138,	3.3	21
80	Laser additive manufacturing of layered TiB ₂ /Ti6Al4V multi-material parts: Understanding thermal behavior evolution. <i>Optics and Laser Technology</i> , 2019 , 119, 105666	4.2	21
79	Fragmentation and refinement behavior and underlying thermodynamic mechanism of WC reinforcement during selective laser melting of Ni-based composites. <i>Journal of Alloys and Compounds</i> , 2019 , 777, 693-702	5.7	21
78	Selective laser melting additive manufacturing of in situ Al ₂ Si ₄ O ₁₀ /Al composites: Microstructural characteristics and mechanical properties. <i>Journal of Composite Materials</i> , 2017 , 51, 519-532	2.7	20
77	Carbon Nanotubes Enabled Laser 3D Printing of High-Performance Titanium with Highly Concentrated Reinforcement. <i>iScience</i> , 2020 , 23, 101498	6.1	20

76	Laser 3D printed bio-inspired impact resistant structure: failure mechanism under compressive loading. <i>Virtual and Physical Prototyping</i> , 2020 , 15, 75-86	10.1	20
75	Effect of post heat treatment on microstructure and mechanical properties of Ni-based composites by selective laser melting. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 765, 138294	5.3	19
74	Formation mechanisms of TiB ₂ tracks on Ti6Al4V alloy during selective laser melting of ceramic-metal multi-material. <i>Powder Technology</i> , 2020 , 367, 597-607	5.2	19
73	Selective laser melting of novel nanocomposites parts with enhanced tribological performance. <i>Virtual and Physical Prototyping</i> , 2013 , 8, 11-18	10.1	19
72	Metallic integrated thermal protection structures inspired by the Norway spruce stem: Design, numerical simulation and selective laser melting fabrication. <i>Optics and Laser Technology</i> , 2019 , 115, 9-19	4.2	19
71	Optimization of bio-inspired bi-directionally corrugated panel impact-resistance structures: Numerical simulation and selective laser melting process. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019 , 91, 59-67	4.1	19
70	Laser Metal Deposition Additive Manufacturing of TiC Reinforced Inconel 625 Composites: Influence of the Additive TiC Particle and Its Starting Size. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2017 , 139,	3.3	18
69	Novel Crystal Growth of In Situ WC in Selective Laser-Melted W ₆₀ Ni Ternary System. <i>Journal of the American Ceramic Society</i> , 2014 , 97, 684-687	3.8	18
68	Thermodynamic behaviour and formation mechanism of novel titanium carbide dendritic crystals within a molten pool of selective laser melting TiC/TiNi composites. <i>CrystEngComm</i> , 2017 , 19, 1089-1099	3.3	17
67	Laser metal deposition for additive manufacturing of AA5024 and nanoparticulate TiC modified AA5024 alloy composites prepared with balling milling process. <i>Optics and Laser Technology</i> , 2020 , 131, 106438	4.2	17
66	Selective growth of Ni ₄ Ti ₃ precipitate variants induced by complicated cyclic stress during laser additive manufacturing of NiTi-based composites. <i>Materials Characterization</i> , 2018 , 143, 191-196	3.9	17
65	Combined strengthening of multi-phase and graded interface in laser additive manufactured TiC/Inconel 718 composites. <i>Journal Physics D: Applied Physics</i> , 2014 , 47, 045309	3	17
64	Structural evolution and formation mechanisms of TiC/Ti nanocomposites prepared by high-energy mechanical alloying. <i>Journal Physics D: Applied Physics</i> , 2010 , 43, 135402	3	17
63	Influence of processing parameters on particulate dispersion in direct laser sintered W ₆₀ Co/Cu MMCs. <i>International Journal of Refractory Metals and Hard Materials</i> , 2008 , 26, 411-422	4.1	16
62	Role of melt behavior in modifying oxidation distribution using an interface incorporated model in selective laser melting of aluminum-based material. <i>Journal of Applied Physics</i> , 2016 , 120, 083104	2.5	16
61	Direct metal laser sintering synthesis of carbon nanotube reinforced Ti matrix composites: Densification, distribution characteristics and properties. <i>Journal of Materials Research</i> , 2016 , 31, 281-291	2.5	16
60	Laser powder bed fusion of bio-inspired honeycomb structures: Effect of twist angle on compressive behaviors. <i>Thin-Walled Structures</i> , 2021 , 159, 107252	4.7	16
59	Mesosopic study of thermal behavior, fluid dynamics and surface morphology during selective laser melting of Ti-based composites. <i>Computational Materials Science</i> , 2020 , 177, 109598	3.2	15

58	Formation mechanism and microstructural and mechanical properties of in-situ TiNi-based composite coatings by laser metal deposition. <i>Surface and Coatings Technology</i> , 2016 , 291, 43-53	4.4	15
57	Microstructures and properties of direct laser sintered tungsten carbide (WC) particle reinforced Cu matrix composites with REBBe addition: A comparative study. <i>Journal of Materials Research</i> , 2009 , 24, 3397-3406	2.5	14
56	In situ synthesized TiC/Ti ₅ Si ₃ nanocomposites by high-energy mechanical alloying: Microstructural development and its mechanism. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 6340-6345	5.3	14
55	Selective laser melting additive manufacturing of cancer pagurus claw inspired bionic structures with high strength and toughness. <i>Applied Surface Science</i> , 2019 , 469, 647-656	6.7	14
54	Effect of process parameters on the microstructure and mechanical properties of AA2024 fabricated using selective laser melting. <i>International Journal of Advanced Manufacturing Technology</i> , 2021 , 112, 175-192	3.2	14
53	The Role of Reinforcing Particle Size in Tailoring Interfacial Microstructure and Wear Performance of Selective Laser Melting WC/Inconel 718 Composites. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2018 , 140,	3.3	14
52	Heat-induced molten pool boundary softening behavior and its effect on tensile properties of laser additive manufactured aluminum alloy. <i>Vacuum</i> , 2018 , 154, 341-350	3.7	14
51	Effect of metallurgical defect and phase transition on geometric accuracy and wear resistance of iron-based parts fabricated by selective laser melting. <i>Journal of Materials Research</i> , 2016 , 31, 1477-1490	2.5	13
50	Selective laser melting processing of 316L stainless steel: effect of microstructural differences along building direction on corrosion behavior. <i>International Journal of Advanced Manufacturing Technology</i> , 2019 , 104, 2669-2679	3.2	13
49	Aluminum-based nanocomposites with hybrid reinforcements prepared by mechanical alloying and selective laser melting consolidation. <i>Journal of Materials Research</i> , 2015 , 30, 2816-2828	2.5	13
48	Nanocrystalline tungstenBickel heavy alloy reinforced by in-situ tungsten carbide: Mechanical alloying preparation and microstructural evolution. <i>International Journal of Refractory Metals and Hard Materials</i> , 2013 , 37, 45-51	4.1	13
47	Laser Additive Manufacturing of Novel Aluminum Based Nanocomposite Parts: Tailored Forming of Multiple Materials. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2016 , 138,	3.3	12
46	Compressive Properties of Bio-Inspired Reticulated Shell Structures Processed by Selective Laser Melting. <i>Advanced Engineering Materials</i> , 2019 , 21, 1801168	3.5	12
45	Development of interfacial stress during selective laser melting of TiC reinforced TiAl composites: Influence of geometric feature of reinforcement. <i>Materials and Design</i> , 2018 , 157, 1-11	8.1	12
44	Selective laser melted TiB ₂ /Ti ₆ Al ₄ V graded materials and first-principle calculations. <i>Materials Letters</i> , 2019 , 254, 33-36	3.3	12
43	Selective laser melting of silver submicron powder modified 316L stainless steel: Influence of silver addition on microstructures and performances. <i>Powder Technology</i> , 2020 , 364, 478-483	5.2	11
42	Influence of substrate surface morphology on wetting behavior of tracks during selective laser melting of aluminum-based alloys. <i>Journal of Zhejiang University: Science A</i> , 2018 , 19, 111-121	2.1	10
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