

Shuo Yin

List of Publications by Year in descending order

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110
papers

4,502
citations

81900

39
h-index

114465

63
g-index

114
all docs

114
docs citations

114
times ranked

2205
citing authors

#	ARTICLE	IF	CITATIONS
1	Cold spray additive manufacturing and repair: Fundamentals and applications. Additive Manufacturing, 2018, 21, 628-650.	3.0	269
2	Solid-state additive manufacturing and repairing by cold spraying: A review. Journal of Materials Science and Technology, 2018, 34, 440-457.	10.7	238
3	Effect of heat treatment on the phase transformation and mechanical properties of Ti6Al4V fabricated by selective laser melting. Journal of Alloys and Compounds, 2018, 764, 1056-1071.	5.5	219
4	Deposition of FeCoNiCrMn high entropy alloy (HEA) coating via cold spraying. Journal of Materials Science and Technology, 2019, 35, 1003-1007.	10.7	158
5	Influence of the pore size and porosity of selective laser melted Ti6Al4V ELI porous scaffold on cell proliferation, osteogenesis and bone ingrowth. Materials Science and Engineering C, 2020, 106, 110289.	7.3	158
6	Deposition behavior of thermally softened copper particles in cold spraying. Acta Materialia, 2013, 61, 5105-5118.	7.9	150
7	Solid-state cold spraying of Ti and its alloys: A literature review. Progress in Materials Science, 2020, 110, 100633.	32.8	123
8	Mechanical and in vitro study of an isotropic Ti6Al4V lattice structure fabricated using selective laser melting. Journal of Alloys and Compounds, 2019, 782, 209-223.	5.5	112
9	Gas Flow, Particle Acceleration, and Heat Transfer in Cold Spray: A review. Journal of Thermal Spray Technology, 2016, 25, 874-896.	3.1	111
10	Advanced diamond-reinforced metal matrix composites via cold spray: Properties and deposition mechanism. Composites Part B: Engineering, 2017, 113, 44-54.	12.0	109
11	Effect of high-temperature preheating on the selective laser melting of yttria-stabilized zirconia ceramic. Journal of Materials Processing Technology, 2015, 222, 61-74.	6.3	101
12	Deformation behavior of the oxide film on the surface of cold sprayed powder particle. Applied Surface Science, 2012, 259, 294-300.	6.1	96
13	Numerical investigations of the effect of oblique impact on particle deformation in cold spraying by the SPH method. Applied Surface Science, 2010, 256, 3725-3734.	6.1	94
14	New insights into the coating/substrate interfacial bonding mechanism in cold spray. Scripta Materialia, 2016, 125, 1-4.	5.2	90
15	Effect of hot isostatic pressing (HIP) on microstructure and mechanical properties of Ti6Al4V alloy fabricated by cold spray additive manufacturing. Additive Manufacturing, 2019, 27, 595-605.	3.0	82
16	Hybrid additive manufacturing of Al-Ti6Al4V functionally graded materials with selective laser melting and cold spraying. Journal of Materials Processing Technology, 2018, 255, 650-655.	6.3	78
17	Microstructure and mechanical properties of pure copper manufactured by selective laser melting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 789, 139615.	5.6	76
18	Effect of substrate hardness on the deformation behavior of subsequently incident particles in cold spraying. Applied Surface Science, 2011, 257, 7560-7565.	6.1	74

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19	Examination on the Calculation Method for Modeling the Multi-Particle Impact Process in Cold Spraying. <i>Journal of Thermal Spray Technology</i> , 2010, 19, 1032-1041.	3.1	69
20	Effect of substrate temperature on interfacial bonding for cold spray of Ni onto Cu. <i>Journal of Materials Science</i> , 2015, 50, 7448-7457.	3.7	69
21	Microstructure and mechanical anisotropy of additively manufactured cold spray copper deposits. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 734, 67-76.	5.6	67
22	Cold spraying of WC-Co-Ni coatings using porous WC-17Co powders: Formation mechanism, microstructure characterization and tribological performance. <i>Materials and Design</i> , 2017, 126, 305-313.	7.0	62
23	Fatigue strength improvement of selective laser melted Ti6Al4V using ultrasonic surface mechanical attrition. <i>Materials Research Letters</i> , 2019, 7, 327-333.	8.7	60
24	Annealing strategies for enhancing mechanical properties of additively manufactured 316L stainless steel deposited by cold spray. <i>Surface and Coatings Technology</i> , 2019, 370, 353-361.	4.8	59
25	Texture and Microstructural Features at Different Length Scales in Inconel 718 Produced by Selective Laser Melting. <i>Materials</i> , 2019, 12, 1293.	2.9	58
26	Effects of Substrate Hardness and Spray Angle on the Deposition Behavior of Cold-Sprayed Ti Particles. <i>Journal of Thermal Spray Technology</i> , 2014, 23, 76-83.	3.1	57
27	Study of the microstructure and mechanical performance of C-X stainless steel processed by selective laser melting (SLM). <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 781, 139227.	5.6	57
28	Solid-state cold spraying of FeCoCrNiMn high-entropy alloy: an insight into microstructure evolution and oxidation behavior at 700-900 Å°C. <i>Journal of Materials Science and Technology</i> , 2021, 68, 172-183.	10.7	52
29	A Review of Advanced Composite and Nanostructured Coatings by Solid-State Cold Spraying Process. <i>Critical Reviews in Solid State and Materials Sciences</i> , 2019, 44, 109-156.	12.3	50
30	Post-Process Treatments on Supersonic Cold Sprayed Coatings: A Review. <i>Coatings</i> , 2020, 10, 123.	2.6	50
31	Strong effect of carrier gas species on particle velocity during cold spray processes. <i>Surface and Coatings Technology</i> , 2015, 268, 90-93.	4.8	49
32	Interfacial bonding features of Ni coating on Al substrate with different surface pretreatments in cold spray. <i>Materials Letters</i> , 2015, 138, 143-147.	2.6	48
33	Al matrix composites fabricated by solid-state cold spray deposition: A critical review. <i>Journal of Materials Science and Technology</i> , 2021, 86, 20-55.	10.7	48
34	Effect of injection pressure on particle acceleration, dispersion and deposition in cold spray. <i>Computational Materials Science</i> , 2014, 90, 7-15.	3.0	47
35	Microstructural features and compressive properties of SLM Ti6Al4V lattice structures. <i>Surface and Coatings Technology</i> , 2020, 403, 126419.	4.8	47
36	A novel method for metalâ€“diamond composite coating deposition with cold spray and formation mechanism. <i>Scripta Materialia</i> , 2016, 115, 10-13.	5.2	45

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37	Evaluation of the interfacial bonding between particles and substrate in angular cold spray. <i>Materials Letters</i> , 2016, 173, 76-79.	2.6	45
38	A novel spiral trajectory for damage component recovery with cold spray. <i>Surface and Coatings Technology</i> , 2017, 309, 719-728.	4.8	44
39	Achieving simultaneously improved tensile strength and ductility of a nano-TiB ₂ /AlSi10Mg composite produced by cold spray additive manufacturing. <i>Composites Part B: Engineering</i> , 2020, 202, 108404.	12.0	44
40	Deposition features of cold sprayed copper particles on preheated substrate. <i>Surface and Coatings Technology</i> , 2015, 268, 252-256.	4.8	41
41	Significant influence of carrier gas temperature during the cold spray process. <i>Surface Engineering</i> , 2014, 30, 443-450.	2.2	39
42	Hybrid additive manufacture of 316L stainless steel with cold spray and selective laser melting: Microstructure and mechanical properties. <i>Journal of Materials Processing Technology</i> , 2019, 273, 116248.	6.3	39
43	Numerical Investigation on Effects of Interactions Between Particles on Coating Formation in Cold Spraying. <i>Journal of Thermal Spray Technology</i> , 2009, 18, 686-693.	3.1	38
44	Computational analysis of the effect of nozzle cross-section shape on gas flow and particle acceleration in cold spraying. <i>Surface and Coatings Technology</i> , 2011, 205, 2970-2977.	4.8	38
45	Numerical Study on the Effect of Substrate Angle on Particle Impact Velocity and Normal Velocity Component in Cold Gas Dynamic Spraying Based on CFD. <i>Journal of Thermal Spray Technology</i> , 2010, 19, 1155-1162.	3.1	37
46	Novel cold spray for fabricating graphene-reinforced metal matrix composites. <i>Materials Letters</i> , 2017, 196, 172-175.	2.6	36
47	Cold spray additive manufacturing of metal matrix composites (MMCs) using a novel nano-TiB ₂ -reinforced 7075Al powder. <i>Journal of Alloys and Compounds</i> , 2020, 819, 152962.	5.5	34
48	Metallurgical bonding between metal matrix and core-shelled reinforcements in cold sprayed composite coating. <i>Scripta Materialia</i> , 2020, 177, 49-53.	5.2	33
49	New insights into the in-process densification mechanism of cold spray Al coatings: Low deposition efficiency induced densification. <i>Journal of Materials Science and Technology</i> , 2019, 35, 427-431.	10.7	31
50	Effect of hot isostatic pressing (HIP) treatment on the compressive properties of Ti6Al4V lattice structure fabricated by selective laser melting. <i>Materials Letters</i> , 2019, 255, 126537.	2.6	30
51	Investigation on the Clogging Behavior and Additional Wall Cooling for the Axial-Injection Cold Spray Nozzle. <i>Journal of Thermal Spray Technology</i> , 2015, 24, 696-701.	3.1	29
52	Three-dimensional simulation of an argon-hydrogen DC non-transferred arc plasma torch. <i>International Journal of Heat and Mass Transfer</i> , 2015, 80, 644-652.	4.8	28
53	Microstructure and cavitation erosion performance of nickel-Inconel 718 composite coatings produced with cold spray. <i>Surface and Coatings Technology</i> , 2020, 382, 125195.	4.8	28
54	Examination on Substrate Preheating Process in Cold Gas Dynamic Spraying. <i>Journal of Thermal Spray Technology</i> , 2011, 20, 852-859.	3.1	27

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55	Numerical investigations on the effect of total pressure and nozzle divergent length on the flow character and particle impact velocity in cold spraying. <i>Surface and Coatings Technology</i> , 2013, 232, 290-297.	4.8	27
56	Deposition Features of Ti Coating Using Irregular Powders in Cold Spray. <i>Journal of Thermal Spray Technology</i> , 2014, 23, 984-990.	3.1	26
57	Effect of heat treatment on the corrosion resistance behavior of selective laser melted Ti6Al4V ELL. <i>Surface and Coatings Technology</i> , 2020, 396, 125955.	4.8	25
58	Formation conditions of vortex-like intermixing interfaces in cold spray. <i>Materials and Design</i> , 2021, 200, 109444.	7.0	25
59	Cold-Sprayed Metal Coatings with Nanostructure. <i>Advances in Materials Science and Engineering</i> , 2018, 2018, 1-19.	1.8	23
60	An Investigation on Temperature Distribution Within the Substrate and Nozzle Wall in Cold Spraying by Numerical and Experimental Methods. <i>Journal of Thermal Spray Technology</i> , 2012, 21, 41-48.	3.1	22
61	Euler based finite element analysis on high velocity impact behaviour in cold spraying. <i>Surface Engineering</i> , 2014, 30, 309-315.	2.2	21
62	A detailed analysis on the microstructure and compressive properties of selective laser melted Ti6Al4V lattice structures. <i>Materials and Design</i> , 2021, 198, 109292.	7.0	21
63	Unravelling the deposition mechanism of brittle particles in metal matrix composites fabricated via cold spray additive manufacturing. <i>Scripta Materialia</i> , 2021, 194, 113614.	5.2	20
64	Numerical Study on the Effect of Substrate Size on the Supersonic Jet Flow and Temperature Distribution Within the Substrate in Cold Spraying. <i>Journal of Thermal Spray Technology</i> , 2012, 21, 628-635.	3.1	17
65	Current Research Status on Cold Sprayed Amorphous Alloy Coatings: A Review. <i>Coatings</i> , 2021, 11, 206.	2.6	17
66	Solid state additive manufacture of highly-reflective Al coatings using cold spray. <i>Optics and Laser Technology</i> , 2019, 115, 251-256.	4.6	16
67	An Assessment of the High-Temperature Oxidation Resistance of Selected Thermal Sprayed High Entropy Alloy Coatings. <i>Journal of Thermal Spray Technology</i> , 2022, 31, 1386-1403.	3.1	16
68	Influence of Particle Initial Temperature on High Velocity Impact Process in Cold Spraying. <i>Procedia Environmental Sciences</i> , 2012, 12, 298-304.	1.4	15
69	Ex-situ additively manufactured FeCrMoCB/Cu bulk metallic glass composite with well wear resistance. <i>Tribology International</i> , 2021, 162, 107112.	5.9	15
70	Microstructure evolution and composition redistribution of FeCoNiCrMn high entropy alloy under extreme plastic deformation. <i>Materials Research Letters</i> , 2022, 10, 124-132.	8.7	15
71	A new strategy for strengthening additively manufactured cold spray deposits through in-process densification. <i>Additive Manufacturing</i> , 2020, 36, 101626.	3.0	14
72	Microstructural and mechanical optimization of selective laser melted Ti6Al4V lattices: Effect of hot isostatic pressing. <i>Journal of Manufacturing Processes</i> , 2022, 77, 151-162.	5.9	14

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73	Formation mechanism and microstructure characterization of nickel-aluminum intertwining interface in cold spray. <i>Surface and Coatings Technology</i> , 2018, 337, 447-452.	4.8	13
74	Tribological properties of Al/diamond composites produced by cold spray additive manufacturing. <i>Additive Manufacturing</i> , 2020, 36, 101434.	3.0	12
75	Effect of Spray Angle on Temperature Distribution within the Metallic Substrate in Cold Spraying. <i>Journal of Thermal Spray Technology</i> , 2013, 22, 983-991.	3.1	11
76	Assessment of porous media instead of slatted floor for modelling the airflow and ammonia emission in the pit headspace. <i>Computers and Electronics in Agriculture</i> , 2016, 123, 163-175.	7.7	9
77	Characterization of Yttria-Stabilized Zirconia Coatings Deposited by Low-Pressure Plasma Spraying. <i>Journal of Thermal Spray Technology</i> , 2016, 25, 558-566.	3.1	9
78	Cold Spray Additive Manufacture and Component Restoration. , 2018, , 195-224.		9
79	Corrosion Resistance and Passivation Behavior of CoCrFeNi-TiAl High-Entropy Alloy Coatings in Acidic Solutions. <i>Journal of Thermal Spray Technology</i> , 2022, 31, 1673-1682.	3.1	9
80	Powder Reuse in Laser-Based Powder Bed Fusion of Ti6Al4V”Changes in Mechanical Properties during a Powder Top-Up Regime. <i>Materials</i> , 2022, 15, 2238.	2.9	9
81	Thermal Spray Technology. <i>Advances in Materials Science and Engineering</i> , 2019, 2019, 1-2.	1.8	8
82	The effect of heat treatment and impact angle on the erosion behavior of nickel-tungsten carbide cold spray coating using response surface methodology. <i>Emergent Materials</i> , 2021, 4, 1605-1618.	5.7	8
83	The role of particles flow characteristics in the performance of cold spray nozzles. <i>CIRP Annals - Manufacturing Technology</i> , 2020, 69, 189-192.	3.6	8
84	Effect of the deviation of the current density profile center on the three-dimensional non-transferred arc plasma torch. <i>Computers and Fluids</i> , 2015, 114, 163-171.	2.5	7
85	Minimum fatigue striation spacing and its stress amplitude dependence in a commercially pure titanium. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2020, 43, 628-634.	3.4	7
86	Mechanical reliability modification of metal matrix composite coatings by adding al particles via cold spray technology. <i>Surfaces and Interfaces</i> , 2020, 20, 100515.	3.0	6
87	Microstructure evolution and mechanical properties of laser additive manufactured Ti6Al4V alloy under nitrogen-argon reactive atmosphere. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 841, 143076.	5.6	6
88	Numerical and Experimental Investigation on Bonding Behavior of Cold Sprayed Porous WC-17Co Particles onto Different Substrates. <i>Coatings</i> , 2018, 8, 367.	2.6	5
89	Cold Spray Additive Manufacturing. <i>Springer Tracts in Additive Manufacturing</i> , 2021, , .	0.8	5
90	The Effect of Inlet Convergence Angle on Flow Field and Performance inside the Jet Pump. , 2011, , .		4

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91	Enabling Diamond Deposition with Cold Spray through the Coated Particle Method. Materials Science Forum, 2016, 879, 1194-1199.	0.3	4
92	Fatigue Crack Growth Behaviour and Role of Roughness-Induced Crack Closure in CP Ti: Stress Amplitude Dependence. Metals, 2021, 11, 1656.	2.3	4
93	Influence of Microstructure Evolution on the Electrochemical Corrosion Behavior of (CoCrFeNi) ₉₄ Ti _{1.5} Al _{4.5} High Entropy Alloy Coatings. Journal of Thermal Spray Technology, 2022, 31, 1375-1385.	3.1	4
94	Microstructure and Tribological Properties of Plasma Cladding FeCoNiCr-x(TiC) Composite Coatings. Journal of Thermal Spray Technology, 2022, 31, 1649-1661.	3.1	4
95	Improvement of tensile strength of cold sprayed Fe deposits via in-process powder preheating. Materials Letters, 2022, 316, 132090.	2.6	4
96	The Role of Material Properties in Cold Spraying for the Surface Modification of Nuclear Main Pump. , 2011, , .		3
97	Leakage Characteristic of Helical Groove Seal Designed in Reactor Coolant Pump. International Journal of Rotating Machinery, 2012, 2012, 1-8.	0.8	3
98	Nanostructured Metal Coatings via Cold Spray. , 2019, , 27-60.		2
99	Correlation between flattening ratio and wear performance of cold sprayed metal matrix composite coatings. Materials Letters, 2021, 283, 128773.	2.6	2
100	Manufacturing Parameters for Cold Spray Additive Manufacturing. Springer Tracts in Additive Manufacturing, 2021, , 53-67.	0.8	1
101	Industrial Applications of Cold Spray Additive Manufacturing. Springer Tracts in Additive Manufacturing, 2021, , 167-186.	0.8	1
102	Hybrid additive manufacture of 316L stainless steel with cold spray and selective laser melting: Microstructure and mechanical properties. , 2019, 273, 116248-116248.		1
103	Fabrication of Ta-Ag composite deposits via cold spray: Investigation of bonding mechanism and deposition behavior. Journal of Advanced Joining Processes, 2022, 6, 100127.	2.7	1
104	Numerical Investigation on the Interaction between the Volume and Diffuser with Different Outlet Angles in Nuclear Main Pump. , 2010, , .		0
105	Cold Sprayed Metal Matrix Composites. Springer Tracts in Additive Manufacturing, 2021, , 121-134.	0.8	0
106	Strengthening Strategies for Cold Sprayed Deposits. Springer Tracts in Additive Manufacturing, 2021, , 91-120.	0.8	0
107	Cold Sprayed Nanostructured Metallic Deposits. Springer Tracts in Additive Manufacturing, 2021, , 135-151.	0.8	0
108	Gas Flow, Particle Acceleration and Heat Transfer in Cold Spray Additive Manufacturing. Springer Tracts in Additive Manufacturing, 2021, , 9-52.	0.8	0

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109	Cold Spraying of IN 718-Ni Composite Coatings: Microstructure Characterization and Tribological Performance. Materials Science Forum, 0, 1016, 840-845.	0.3	0
110	Applications of Laser in Cold Spray. , 2021, , 395-427.		0