Yongxian Huang

List of Publications by Year
in descending order

95 papers	3,987 citations	94433 37 h-index	133252 59 g-index
95 all docs	95 docs citations	95 times ranked	1817 citing authors

#	Article	IF	Citations
1	Recent progress on control strategies for inherent issues in friction stir welding. Progress in Materials Science, 2021, 115, 100706.	32.8	398
2	Friction stir welding/processing of polymers and polymer matrix composites. Composites Part A: Applied Science and Manufacturing, 2018, 105, 235-257.	7.6	244
3	Friction stir welding of dissimilar aluminum alloys and steels: a review. International Journal of Advanced Manufacturing Technology, 2018, 99, 1781-1811.	3.0	120
4	Joining of carbon fiber reinforced thermoplastic and metal via friction stir welding with co-controlling shape and performance. Composites Part A: Applied Science and Manufacturing, 2018, 112, 328-336.	7.6	107
5	Joining of aluminum alloy and polymer via friction stir lap welding. Journal of Materials Processing Technology, 2018, 257, 148-154.	6.3	106
6	Numerical design of high depth-to-width ratio friction stir welding. Journal of Materials Processing Technology, 2018, 252, 233-241.	6.3	104
7	Microstructure and surface mechanical property of AZ31 Mg/SiCp surface composite fabricated by Direct Friction Stir Processing. Materials & Design, 2014, 59, 274-278.	5.1	102
8	Homogeneously Dispersed Graphene Nanoplatelets as Long-Term Corrosion Inhibitors for Aluminum Matrix Composites. ACS Applied Materials & Interfaces, 2021, 13, 32161-32174.	8.0	101
9	A Review on High Entropy Alloys Coatings: Fabrication Processes and Property Assessment. Advanced Engineering Materials, 2019, 21, 1900343.	3.5	98
10	Insight into ultra-refined grains of aluminum matrix composites via deformation-driven metallurgy. Composites Communications, 2021, 26, 100776.	6.3	94
11	Friction stir processing of high-entropy alloy reinforced aluminum matrix composites for mechanical properties enhancement. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 792, 139755.	5.6	82
12	Insight on corrosion behavior of friction stir welded AA2219/AA2195 joints in astronautical engineering. Corrosion Science, 2021, 192, 109800.	6.6	80
13	Ameliorating strength-ductility efficiency of graphene nanoplatelet-reinforced aluminum composites via deformation-driven metallurgy. Composites Science and Technology, 2022, 219, 109225.	7.8	77
14	Strengthening and toughening mechanisms of CNTs/Mg-6Zn composites via friction stir processing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 732, 205-211.	5.6	76
15	Mechanical Properties and Microstructure of 6082-T6 Aluminum Alloy Joints by Self-support Friction Stir Welding. Journal of Materials Science and Technology, 2014, 30, 1243-1250.	10.7	74
16	Friction self-riveting welding between polymer matrix composites and metals. Composites Part A: Applied Science and Manufacturing, 2019, 127, 105624.	7.6	74
17	Effect of self-support friction stir welding on microstructure and microhardness of 6082-T6 aluminum alloy joint. Materials & Design, 2014, 55, 197-203.	5.1	73
18	AA7075 bit for repairing AA2219 keyhole by filling friction stir welding. Materials & Design, 2013, 51, 25-33.	5.1	71

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19	Effect of Reverse-threaded Pin on Mechanical Properties of Friction Stir Lap Welded Alclad 2024 Aluminum Alloy. Journal of Materials Science and Technology, 2016, 32, 671-675.	10.7	70
20	Microstructural evolution and mechanical properties of Mg Zn Y Zr alloy during friction stir processing. Journal of Alloys and Compounds, 2017, 696, 875-883.	5.5	70
21	Dynamic recrystallization and mechanical properties of friction stir processed Mg-Zn-Y-Zr alloys. Journal of Materials Processing Technology, 2017, 249, 331-338.	6.3	65
22	A new method of hybrid friction stir welding assisted by friction surfacing for joining dissimilar Ti/Al alloy. Materials Letters, 2017, 207, 172-175.	2.6	65
23	Micro friction stir welding of ultra-thin Al-6061 sheets. Journal of Materials Processing Technology, 2017, 250, 313-319.	6.3	62
24	Joint formation mechanism of high depth-to-width ratio friction stir welding. Journal of Materials Science and Technology, 2019, 35, 1261-1269.	10.7	62
25	Material flow and mechanical properties of aluminum-to-steel self-riveting friction stir lap joints. Journal of Materials Processing Technology, 2019, 263, 129-137.	6.3	58
26	Deformation-driven metallurgy of graphene nanoplatelets reinforced aluminum composite for the balance between strength and ductility. Composites Part B: Engineering, 2019, 177, 107413.	12.0	57
27	Welding of high entropy alloys: Progresses, challenges and perspectives. Journal of Manufacturing Processes, 2021, 68, 293-331.	5.9	57
28	New technique of friction-based filling stacking joining for metal and polymer. Composites Part B: Engineering, 2019, 163, 217-223.	12.0	56
29	Friction spot welding of carbon fiber-reinforced polyetherimide laminate. Composite Structures, 2018, 189, 627-634.	5.8	53
30	Material-flow behavior during friction-stir welding of 6082-T6 aluminum alloy. International Journal of Advanced Manufacturing Technology, 2016, 87, 1115-1123.	3.0	51
31	Self-riveting friction stir lap welding of aluminum alloy to steel. Materials Letters, 2016, 185, 181-184.	2.6	51
32	Strength-ductility balance strategy in SiC reinforced aluminum matrix composites via deformation-driven metallurgy. Journal of Alloys and Compounds, 2022, 891, 162078.	5.5	44
33	Heteroatom Modification Enhances Corrosion Durability in Highâ€Mechanicalâ€Performance Grapheneâ€Reinforced Aluminum Matrix Composites. Advanced Science, 2022, 9, .	11.2	43
34	Fabrication and interfacial characterization of aluminum foam sandwich via fluxless soldering with surface abrasion. Composite Structures, 2015, 123, 366-373.	5.8	42
35	Improving mechanical properties of composite/metal friction stir lap welding joints via a taper-screwed pin with triple facets. Journal of Materials Processing Technology, 2019, 268, 80-86.	6.3	42
36	Microstructures and mechanical properties of micro friction stir welding (Î¼FSW) of 6061-T4 aluminum alloy. Journal of Materials Research and Technology, 2019, 8, 1084-1091.	5.8	42

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37	Influence of Zr addition on TIG weldingâ€“brazing of Tiâ€“6Alâ€“4V toAl5A06. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 568, 150-154.	5.6	41
38	Probe shape design for eliminating the defects of friction stir lap welded dissimilar materials. Journal of Manufacturing Processes, 2018, 35, 420-427.	5.9	41
39	Non-weld-thinning friction stir welding. Materials Letters, 2019, 255, 126506.	2.6	41
40	Fast Li-ion transport pathways via 3D continuous networks in homogeneous garnet-type electrolyte for solid-state lithium batteries. Energy Storage Materials, 2021, 43, 190-201.	18.0	40
41	Enhancing Friction Stir Weldability of 6061-T6 Al and AZ31B Mg Alloys Assisted by External Non-rotational Shoulder. Journal of Materials Engineering and Performance, 2017, 26, 2359-2367.	2.5	35
42	Achieving High-Quality Al/Steel Joint with Ultrastrong Interface. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 295-299.	2.2	35
43	Friction stir extrusion for fabricating Mg-RE alloys with high strength and ductility. Materials Letters, 2021, 289, 129414.	2.6	35
44	Enhanced strength and ductility of friction-stir-processed Mgâ€“6Zn alloys via Y and Zr co-alloying. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 773, 138877.	5.6	27
45	Friction welding of AA6061 to AISI 316L steel: characteristic analysis and novel design equipment. International Journal of Advanced Manufacturing Technology, 2018, 95, 4117-4128.	3.0	26
46	Interface characteristic and tensile property of friction stir lap welding of dissimilar aircraft 2060-T8 and 2099-T83 Alâ€“Li alloys. International Journal of Advanced Manufacturing Technology, 2018, 94, 1253-1261.	3.0	26
47	In situ rolling friction stir welding for joining AA2219. Materials & Design, 2013, 50, 810-816.	5.1	25
48	Interface analysis of inorganic films on polyimide with atomic oxygen exposure. Surface and Coatings Technology, 2013, 216, 121-126.	4.8	24
49	Gradient micro-structured surface layer on aluminum alloy fabricated by in situ rolling friction stir welding. Materials & Design, 2013, 52, 821-827.	5.1	24
50	Interface engineering for garnet-type electrolyte enables low interfacial resistance in solid-state lithium batteries. Chemical Engineering Journal, 2022, 447, 137538.	12.7	24
51	Mechanical and optical characteristics of multilayer inorganic films on polyimide for anti-atomic-oxygen erosion. Applied Surface Science, 2012, 258, 5810-5814.	6.1	23
52	Brazing YSZ ceramics by a novel SiO2 nanoparticles modified Ag filler. Ceramics International, 2020, 46, 16493-16501.	4.8	23
53	Recycling garnet-type electrolyte toward superior cycling performance for solid-state lithium batteries. Energy Storage Materials, 2022, 49, 360-369.	18.0	23
54	Deformation-driven metallurgy of SiC nanoparticle reinforced aluminum matrix nanocomposites. Journal of Alloys and Compounds, 2020, 823, 153741.	5.5	20

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55	Diffusion bonding of Ti and Zr at ultra-low temperature via surface nano-crystallization treatment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 785, 139413.	5.6	20
56	Oriented Attachment Strategy Toward Enhancing Ionic Conductivity in Garnet-Type Electrolytes for Solid-State Lithium Batteries. ACS Applied Materials & Interfaces, 2021, 13, 34385-34396.	8.0	20
57	Interface stability and fracture mechanism of Al/Steel friction stir lap joints by novel designed tool. Journal of Materials Processing Technology, 2022, 300, 117425.	6.3	20
58	An undercutting model of atomic oxygen for multilayer silica/alumina films fabricated by plasma immersion implantation and deposition on polyimide. Applied Surface Science, 2011, 257, 9158-9163.	6.1	18
59	Friction stir spot welding of aluminum and wood with polymer intermediate layers. Construction and Building Materials, 2020, 240, 117952.	7.2	18
60	Microstructure and mechanical properties of the AlON / Ti6Al4V active element brazing joint. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 793, 139859.	5.6	18
61	Optical and mechanical properties of alumina films fabricated on Kapton polymer by plasma immersion ion implantation and deposition using different biases. Applied Surface Science, 2007, 253, 9483-9488.	6.1	16
62	Fluxless soldering with surface abrasion for joining metal foams. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 552, 283-287.	5.6	16
63	Novel method of fluxless soldering with self-abrasion for fabricating aluminum foam sandwich. Journal of Alloys and Compounds, 2015, 640, 1-7.	5.5	16
64	Functionally Gradient Coating of Aluminum Alloy via In Situ Arc Surface Nitriding with Subsequent Friction Stir Processing. Advanced Engineering Materials, 2019, 21, 1800841.	3.5	15
65	Deformation-driven modification towards strength-ductility enhancement in Alâ€“Liâ€“Mgâ€“Znâ€“Cu lightweight high-entropy alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 830, 142332.	5.6	15
66	The weld formation of self-support friction stir welds for aluminum hollow extrusion. International Journal of Advanced Manufacturing Technology, 2016, 87, 1067-1075.	3.0	14
67	Influence of Rotation Speed on Microstructure and Mechanical Properties of Friction Stir Lap Welded Joints of AA 6061 and Ti6Al4V Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 733-745.	2.2	14
68	Non-destructive measurement of residual stress distribution as a function of depth in sapphire/Ti6Al4V brazing joint via Raman spectra. Ceramics International, 2019, 45, 3284-3289.	4.8	14
69	Ultrafine-grained Mg-Zn-Y-Zr alloy with remarkable improvement in superplasticity. Materials Letters, 2021, 303, 130524.	2.6	14
70	Reversible passivation in primary aluminum-air batteries via composite anodes. Energy Storage Materials, 2022, 49, 537-545.	18.0	12
71	Implantation dynamics of plasma implantation into insulating strips. Journal Physics D: Applied Physics, 2004, 37, 50-54.	2.8	11
72	Stepped-shoulder friction stir welding to alleviate weld thinning for dissimilar AA2195-T8/AA2219-T6 alloys. Science and Technology of Welding and Joining, 2021, 26, 599-605.	3.1	11

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73	Interfacial behavior and mechanical properties of aluminum foam joint fabricated by surface self-abrasion fluxless soldering. Journal of Alloys and Compounds, 2016, 671, 346-353.	5.5	10
74	Joining of yttria stabilised zirconia to Ti6Al4V alloy using novel CuO nanostructure reinforced Cu foam interlayer. Materials Letters, 2019, 253, 105-108.	2.6	9
75	Friction stir lap welding of AA2024-T4 with drastically different thickness. International Journal of Advanced Manufacturing Technology, 2020, 106, 3683-3691.	3.0	9
76	Friction rivet joining towards high-performance wood-metal hybrid structures. Composite Structures, 2020, 247, 112472.	5.8	9
77	Deformation-driven modification of Al-Li-Mg-Zn-Cu high-alloy aluminum as anodes for primary aluminum-air batteries. Scripta Materialia, 2022, 212, 114551.	5.2	9
78	Making Superhydrophobic Surfaces with Microstripe Array Structure by Diffusion Bonding and Their Applications in Magnetic Control Microdroplet Release Systems. Advanced Materials Interfaces, 2017, 4, 1700918.	3.7	8
79	A ground-based radio frequency inductively coupled plasma apparatus for atomic oxygen simulation in low Earth orbit. Review of Scientific Instruments, 2007, 78, 103301.	1.3	6
80	Grain Refinement in Surficial Cryogenic Grinding. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 3349-3353.	2.2	6
81	Microstructural Characteristics and Mechanical Properties of Friction-Stir-Welded CuSn6 Tin Bronze. Journal of Materials Engineering and Performance, 2019, 28, 4477-4484.	2.5	5
82	Atypical grain coarsening of friction stir welded AA6082-T6: Characterization and modeling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 740-741, 211-217.	5.6	5
83	Equal-load-bearing joining of alclad AA2024-T4 alloy stringers and skins in aviation via friction stir lap welding. Journal of Manufacturing Processes, 2021, 68, 1295-1302.	5.9	5
84	Ion trajectories in plasma ion implantation of slender cylindrical bores using a small inner end source. Applied Physics Letters, 2008, 93, 191501.	3.3	3
85	Nanoparticle dispersion effect of laser-surface melting in ZrB2p/6061Al composites. Journal of Nanoparticle Research, 2017, 19, 1.	1.9	3
86	High Pressureâ€"Amplitude Ratio Ultrasonic Spot Welding of Thermoplastic Carbon Fiberâ€Reinforced Epoxy. Advanced Engineering Materials, 2022, 24, 2100706.	3.5	3
87	Joining Alumina and Sapphire by Growing Aluminium Borate Whiskers In-Situ, and the Whiskersâ€™ Orientation Relationship with the Sapphire Substrate. Materials, 2020, 13, 175.	2.9	2
88	Microstructure and mechanical properties of Al₂O₃ ceramic joints achieved by Agâ€SiO₂ braze in air. International Journal of Applied Ceramic Technology, 2022, 19, 508-513.	2.1	2
89	Deformation-Driven Processing of CNTs/PEEK Composites towards Wear and Tribology Applications. Coatings, 2022, 12, 983.	2.6	2
90	Ion trajectories and shadow effects in mesh-assisted plasma immersion ion implantation of insulator. Applied Surface Science, 2012, 258, 2910-2913.	6.1	1

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91	Surface Substructure and Properties of ZrB2p/6061Al Composite Treated by Laser Surface Melting under Extreme Cooling Conditions. High Temperature Materials and Processes, 2017, 36, 69-77.	1.4	1
92	Friction-based welding of metal to polymer. , 2022, , 349-444.		1
93	Friction stir welding of dissimilar materials. , 2022, , 283-348.		1
94	Improving tensile-shear strength of friction stir lap welded joints of light-weight Mg-Li/Mgâ€“Al-Zn alloys. Welding in the World, Le Soudage Dans Le Monde, 0, , .	2.5	1
95	Superhydrophobicity: Making Superhydrophobic Surfaces with Microstripe Array Structure by Diffusion Bonding and Their Applications in Magnetic Control Microdroplet Release Systems (Adv.) Tj ETQq1 1 0.784314 rgBT /Overlock	8.3	0