Pengkang Zhao

List of Publications by Year
in descending order

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		471509	526287
51	867	17	27
papers	citations	h-index	g-index

52	52	52	711
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Influence of welding parameters and tool pin profile on microstructure and mechanical properties along the thickness in a friction stir welded aluminum alloy. Materials & Design, 2013, 47, 599-606.	5.1	78
2	Manufacture of biodegradable magnesium alloy by high speed friction stir processing. Journal of Manufacturing Processes, 2018, 36, 22-32.	5.9	45
3	High speed friction stir welding of ultra-thin AA6061-T6 sheets using different backing plates. Journal of Manufacturing Processes, 2018, 33, 219-227.	5.9	45
4	Microstructure, texture and mechanical properties of friction stir welded butt joints of 2A97 Al Li alloy ultra-thin sheets. Journal of Alloys and Compounds, 2017, 692, 155-169.	5.5	41
5	Defect features, texture and mechanical properties of friction stir welded lap joints of 2A97 Al-Li alloy thin sheets. Materials Characterization, 2017, 125, 160-173.	4.4	39
6	Effects of interfacial reaction and atomic diffusion on the mechanical property of Ti 3 SiC 2 ceramic to Cu brazing joints. Vacuum, 2016, 130, 56-62.	3.5	36
7	Effects of travel speed on mechanical properties of AA7075-T6 ultra-thin sheet joints fabricated by high rotational speed micro pinless friction stir welding. Journal of Materials Processing Technology, 2019, 265, 63-70.	6.3	36
8	Role of tool design on thermal cycling and mechanical properties of a high-speed micro friction stir welded 7075-T6 aluminum alloy. Journal of Manufacturing Processes, 2019, 48, 145-153.	5.9	35
9	Low cycle fatigue properties of linear friction welded joint of TC11 and TC17 titanium alloys. Journal of Alloys and Compounds, 2016, 675, 248-256.	5.5	33
10	Effect of high rotational speed on temperature distribution, microstructure evolution, and mechanical properties of friction stir welded 6061-T6 thin plate joints. International Journal of Advanced Manufacturing Technology, 2018, 96, 1823-1833.	3.0	33
11	Microstructure, static and fatigue properties of refill friction stir spot welded 7075-T6 aluminium alloy using a modified tool. Science and Technology of Welding and Joining, 2019, 24, 587-600.	3.1	33
12	Microstructural characterization and mechanical properties of micro friction stir welded dissimilar Al/Cu ultra-thin sheets. Journal of Manufacturing Processes, 2020, 60, 356-365.	5.9	32
13	Effects of surface microstructure on the active element content and wetting behavior of brazing filler metal during brazing Ti3SiC2 ceramic and Cu. Vacuum, 2018, 156, 256-263.	3.5	28
14	Effects of tool shoulder size on the thermal process and material flow behaviors in ultrasonic vibration enhanced friction stir welding. Journal of Manufacturing Processes, 2020, 53, 69-83.	5.9	28
15	Recent Advances in Chemical Biology of Mitochondria Targeting. Frontiers in Chemistry, 2021, 9, 683220.	3.6	26
16	Microstructure evolution and fracture behaviour of friction stir welded 6061-T6 thin plate joints under high rotational speed. Science and Technology of Welding and Joining, 2018, 23, 333-343.	3.1	23
17	Solder wetting behavior enhancement via laser-textured surface microcosmic topography. Applied Surface Science, 2016, 368, 208-215.	6.1	21
18	Photoluminescence analysis on the indium doped Cd0.9Zn0.1Te crystal. Journal of Applied Physics, 2006, 100, 013518.	2.5	19

#	Article	IF	Citations
19	Effects of external electric field on microstructure and property of friction welded joint between copper and stainless steel. Journal of Materials Science, 2006, 41, 4137-4142.	3.7	18
20	Calculation of welding tool pin width for friction stir welding of thin overlapping sheets. International Journal of Advanced Manufacturing Technology, 2018, 98, 1721-1731.	3.0	18
21	Visualisation and numerical simulation of material flow behaviour during high-speed FSW process of 2024 aluminium alloy thin plate. International Journal of Advanced Manufacturing Technology, 2019, 102, 1901-1912.	3.0	17
22	The effect of chemical polishing on the interface structure and electrical property of Au/Cd0.9Zn0.1Te contact. Applied Physics A: Materials Science and Processing, 2014, 115, 1309-1316.	2.3	14
23	Finite Element Simulation of Deformation Behavior in Friction Welding of Al-Cu-Mg Alloy. Journal of Materials Engineering and Performance, 2006, 15, 627-631.	2.5	13
24	Electronic structure of the quantum spin Hall parent compound CdTe and related topological issues. Physical Review B, 2014, 90, .	3.2	11
25	Spectroscopic studies ofCdTe(111)bulk and surface electronic structure. Physical Review B, 2015, 91, .	3.2	11
26	Synthesis and densification of (Zr-Hf-Nb-Ta)C-Co high entropy cermet prepared by pressureless melt infiltration using spark plasma sintering. Journal of Alloys and Compounds, 2022, 900, 163412.	5.5	11
27	Growth and electron microscopy study of GaN/MgAl₂O₄ heterostructures. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 1302-1304.	1.8	10
28	Radial Distribution Characteristics of Microstructure and Mechanical Properties of Tiâ€“6Alâ€“4V Butt Joint by Rotary Friction Welding. Acta Metallurgica Sinica (English Letters), 2015, 28, 1291-1298.	2.9	10
29	Microstructure Evolution and Mechanical Properties of High-Speed Friction Stir Welded Aluminum Alloy Thin Plate Joints. Journal of Materials Engineering and Performance, 2018, 27, 3590-3599.	2.5	10
30	Influences of welding parameters on axial force and deformations of micro pinless friction stir welding. International Journal of Advanced Manufacturing Technology, 2020, 106, 3273-3283.	3.0	9
31	Antisolventâ€Free Fabrication of Efficient and Stable Snâ€“Pb Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100675.	5.8	9
32	Dual laser-beam synchronous self-fusion welding of Tiâ€“6Alâ€“4V titanium alloys T-joints based on prefabricated welding materials. Journal of Materials Research and Technology, 2022, 17, 2560-2576.	5.8	9
33	On the morphology and crystallography of Hg5In2Te8 precipitation in Hg3In2Te6. Journal of Alloys and Compounds, 2014, 601, 298-306.	5.5	8
34	Effects of laser-textured surface pattern on the wetting behavior and composition optimization of brazing filler: experimental study and numerical simulation. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	2.3	6
35	Microstructural evolution, mechanical properties, and FEM analysis of the residual stress of sapphire joints brazed with a novel borate glass. Ceramics International, 2021, 47, 6699-6710.	4.8	6
36	The effect of fast annealing treatment on the interface structure and electrical properties of Au/Hg3In2Te6 contact. Journal of Materials Science, 2014, 49, 6160-6166.	3.7	5

#	Article	IF	Citations
37	HRTEM study on the ordered phases in Hg₃In₂Te₆ crystals grown by Bridgman method. CrystEngComm, 2014, 16, 5073-5079.	2.6	4
38	Measurement of core level and band offsets at the interface of ITO/Hg3In2Te6(110) heterojunction by synchrotron radiation photoelectron spectroscopy. Journal of Electron Spectroscopy and Related Phenomena, 2016, 207, 24-28.	1.7	4
39	Hot Deformation Behavior of Hydrogenated 0.21Âwt.%H Ti-0.3Mo-0.8Ni Alloy Welded Joints. Journal of Materials Engineering and Performance, 2020, 29, 4814-4821.	2.5	4
40	Effects of pin morphology on the interface defects of the FSWed lap joints of 2A12 aluminum alloy. Journal of Manufacturing Processes, 2021, 68, 128-140.	5.9	4
41	Microstructure and Mechanical Properties of Hydrogenated Ti-0.3Mo-0.8Ni Alloy Gas Tungsten Arc Welding Joints. Journal of Materials Engineering and Performance, 2021, 30, 1022-1029.	2.5	4
42	Numerical and Experimental Investigation on Power Input during Linear Friction Welding Between TC11 and TC17 Alloys. Journal of Materials Engineering and Performance, 2020, 29, 2061-2072.	2.5	3
43	Two-photon fluorogenic probe for visualizing PGP-1 activity in inflammatory tissues and serum from patients. Chemical Communications, 2021, 57, 13186-13189.	4.1	3
44	Two-photon fluorescence imaging of mitochondrial viscosity with water-soluble pyridinium inner salts. New Journal of Chemistry, 2022, 46, 2487-2494.	2.8	3
45	Title is missing!. Journal of Materials Science, 2003, 38, 1147-1151.	3.7	2
46	Effect of Ar+ ion etching treatment on the surface work function of Hg3In2Te6 wafer. Journal of Electron Spectroscopy and Related Phenomena, 2013, 187, 49-52.	1.7	2
47	TEM study on HgIn2Te4 precipitates in Hg3In2Te6 crystals grown by the Bridgman method. CrystEngComm, 2014, 16, 7660-7666.	2.6	2
48	An Effective Approach to Improving Cadmium Telluride (111)A Surface by Molecular-Beam-Epitaxy Growth of Tellurium Monolayer. ACS Applied Materials & Interfaces, 2016, 8, 726-735.	8.0	2
49	The modification of electrical properties of Au/n-Hg3In2Te6 Schottky contact by the introduction of ITO interlayer. Current Applied Physics, 2016, 16, 623-627.	2.4	2
50	Bonding mechanisms and electronic properties of HgIn2Te4 with Au doping: First-principles study. Journal of Applied Physics, 2018, 124, .	2.5	1
51	Effect of hydrogen addition on compression deformation behaviour of Tiâ€“0.3Moâ€“0.8Ni alloy argon-arc welded joints. Journal of Iron and Steel Research International, 2021, 28, 621-628.	2.8	1