Liang Zhang

List of Publications by Year
in descending order

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84	2,808	159585 30	189892 50
papers	citations	h-index	g-index

86	86	86	1067
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Structure and properties of lead-free solders bearing micro and nano particles. Materials Science and Engineering Reports, 2014, 82, 1-32.	31.8	248
2	Interface reaction and intermetallic compound growth behavior of Sn-Ag-Cu lead-free solder joints on different substrates in electronic packaging. Journal of Materials Science, 2019, 54, 1741-1768.	3.7	146
3	A review on the interfacial intermetallic compounds between Snâ€“Agâ€“Cu based solders and substrates. Journal of Materials Science: Materials in Electronics, 2010, 21, 421-440.	2.2	140
4	Development of Snâ€“Zn lead-free solders bearing alloying elements. Journal of Materials Science: Materials in Electronics, 2010, 21, 1-15.	2.2	106
5	Interface reaction between SnAgCu/SnAgCuCe solders and Cu substrate subjected to thermal cycling and isothermal aging. Journal of Alloys and Compounds, 2012, 510, 38-45.	5.5	106
6	Reliability issues of lead-free solder joints in electronic devices. Science and Technology of Advanced Materials, 2019, 20, 876-901.	6.1	104
7	Development of SnAg-based lead free solders in electronics packaging. Microelectronics Reliability, 2012, 52, 559-578.	1.7	94
8	Structure and properties of Sn-Cu lead-free solders in electronics packaging. Science and Technology of Advanced Materials, 2019, 20, 421-444.	6.1	83
9	Effects of rare earths on properties and microstructures of lead-free solder alloys. Journal of Materials Science: Materials in Electronics, 2009, 20, 685-694.	2.2	82
10	Achieve efficient nitrogen removal from real sewage in a plug-flow integrated fixed-film activated sludge (IFAS) reactor via partial nitritation/anammox pathway. Bioresource Technology, 2017, 239, 294-301.	9.6	73
11	Materials, processing and reliability of low temperature bonding in 3D chip stacking. Journal of Alloys and Compounds, 2018, 750, 980-995.	5.5	72
12	Recent progress in SLID bonding in novel 3D-IC technologies. Journal of Alloys and Compounds, 2020, 818, 152825.	5.5	71
13	Reliability behavior of lead-free solder joints in electronic components. Journal of Materials Science: Materials in Electronics, 2013, 24, 172-190.	2.2	65
14	Recent advances on Snâ€“Cu solders with alloying elements: review. Journal of Materials Science: Materials in Electronics, 2011, 22, 565-578.	2.2	61
15	Materials modification of the lead-free solders incorporated with micro/nano-sized particles: A review. Materials and Design, 2021, 197, 109224.	7.0	59
16	Inhibition of intermetallic compounds growth at Snâ€“58Bi/Cu interface bearing CuZnAl memory particles (2â€“6Âµm). Journal of Materials Science: Materials in Electronics, 2020, 31, 2466-2480.	2.2	57
17	Effect of CuZnAl particles addition on microstructure of Cu/Sn58Bi/Cu TLP bonding solder joints. Vacuum, 2019, 167, 301-306.	3.5	54
18	Effects of trace rare earth Nd addition on microstructure and properties of SnAgCu solder. Journal of Materials Science: Materials in Electronics, 2010, 21, 643-648.	2.2	51

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19	Reliability of lead-free solder joints in CSP device under thermal cycling. Journal of Materials Science: Materials in Electronics, 2014, 25, 1209-1213.	2.2	48
20	Filler metals, brazing processing and reliability for diamond tools brazing: A review. Journal of Manufacturing Processes, 2021, 66, 651-668.	5.9	48
21	Properties enhancement of SnAgCu solders containing rare earth Yb. Materials & Design, 2014, 57, 646-651.	5.1	44
22	Effect of nano-Al addition on properties and microstructure of low-Ag content Snâ€“1Agâ€“0.5Cu solders. Journal of Materials Science: Materials in Electronics, 2016, 27, 7665-7673.	2.2	44
23	Interfacial compounds growth of SnAgCu(nano La 2 O 3)/Cu solder joints based on experiments and FEM. Journal of Alloys and Compounds, 2015, 635, 55-60.	5.5	43
24	Effects of trace amount addition of rare earth on properties and microstructure of Snâ€“Agâ€“Cu alloys. Journal of Materials Science: Materials in Electronics, 2009, 20, 1193-1199.	2.2	42
25	Properties and Microstructures of Sn-Ag-Cu-X Lead-Free Solder Joints in Electronic Packaging. Advances in Materials Science and Engineering, 2015, 2015, 1-16.	1.8	41
26	Microstructures and properties of Sn58Bi, Sn35Bi0.3Ag, Sn35Bi1.0Ag solder and solder joints. Journal of Materials Science: Materials in Electronics, 2015, 26, 7629-7634.	2.2	38
27	Effects of cerium on Sn-Ag-Cu alloys based on finite element simulation and experiments. Journal of Rare Earths, 2009, 27, 138-144.	4.8	36
28	Review of microstructure and properties of low temperature lead-free solder in electronic packaging. Science and Technology of Advanced Materials, 2020, 21, 689-711.	6.1	36
29	Effect of Zn on properties and microstructure of SnAgCu alloy. Journal of Materials Science: Materials in Electronics, 2012, 23, 1950-1956.	2.2	34
30	Effect of praseodymium on the microstructure and properties of Sn3.8Ag0.7Cu solder. Journal of Materials Science: Materials in Electronics, 2010, 21, 910-916.	2.2	31
31	Intermetallic compound layer growth between SnAgCu solder and Cu substrate in electronic packaging. Journal of Materials Science: Materials in Electronics, 2013, 24, 3249-3254.	2.2	31
32	FxTDO â€based nonâ€singular terminal sliding mode control for secondâ€order uncertain systems. IET Control Theory and Applications, 2018, 12, 2459-2467.	2.1	30
33	Interfacial microstructure and properties of Snâ€“0.7Cuâ€“0.05Ni/Cu solder joint with rare earth Nd addition. Journal of Alloys and Compounds, 2011, 509, 7152-7161.	5.5	28
34	Development of lead-free interconnection materials in electronic industry during the past decades: Structure and properties. Materials and Design, 2022, 215, 110439.	7.0	27
35	Properties and Microstructures of Sn-Bi-X Lead-Free Solders. Advances in Materials Science and Engineering, 2016, 2016, 1-15.	1.8	24
36	Recent advances on SnBi low-temperature solder for electronic interconnections. Journal of Materials Science: Materials in Electronics, 2021, 32, 22731-22759.	2.2	24

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37	Influences of doping Ti nanoparticles on microstructure and properties of Sn58Bi solder. Journal of Materials Science: Materials in Electronics, 2019, 30, 17583-17590.	2.2	23
38	Enhancement of structure and properties of Sn58Bi solder by AlN ceramic particles. Journal of Materials Research and Technology, 2022, 19, 2584-2595.	5.8	23
39	Stress analysis and structural optimization of 3-D IC package based on the Taguchi method. Soldering and Surface Mount Technology, 2019, 32, 42-47.	1.5	22
40	Properties and microstructures of SnAgCuâ€" x Eu alloys for concentrator silicon solar cells solder layer. Solar Energy Materials and Solar Cells, 2014, 130, 397-400.	6.2	21
41	Microstructures, interface reaction, and properties of Snâ€"Agâ€"Cu and Snâ€"Agâ€"Cuâ€"0.5CuZnAl solders on Fe substrate. Journal of Materials Science: Materials in Electronics, 2020, 31, 6645-6653.	2.2	20
42	Interfacial evolution of pure Sn solder bearing silicon carbide nanowires under isothermal aging and thermal cycling. Journal of Materials Research and Technology, 2021, 15, 3974-3982.	5.8	20
43	Microstructures and Properties of SnZn Lead-Free Solder Joints Bearing La for Electronic Packaging. IEEE Transactions on Electron Devices, 2012, 59, 3269-3272.	3.0	19
44	Microstructures and fatigue life of SnAgCu solder joints bearing Nano-Al particles in QFP devices. Electronic Materials Letters, 2014, 10, 645-647.	2.2	19
45	Effects of CuZnAl Particles on Properties and Microstructure of Sn-58Bi Solder. Materials, 2017, 10, 558.	2.9	19
46	Effect of addition of CuZnAl particle on the properties of Sn solder joint. Journal of Materials Processing Technology, 2020, 278, 116507.	6.3	19
47	Properties and microstructure of Snâ€"0.7Cuâ€"0.05Ni solder bearing rare earth element Pr. Journal of Materials Science: Materials in Electronics, 2011, 22, 1101-1108.	2.2	18
48	Creep behavior of SnAgCu solders containing nano-Al particles. Journal of Materials Science: Materials in Electronics, 2015, 26, 3615-3620.	2.2	18
49	Reliability study of industry Sn3.0Ag0.5Cu/Cu lead-free soldered joints in electronic packaging. Journal of Materials Science: Materials in Electronics, 2015, 26, 9164-9170.	2.2	17
50	Effect of thermal cycles on interface and mechanical property of low-Ag Sn1.0Ag0.5Cu(nano-Al)/Cu solder joints. Journal of Materials Science: Materials in Electronics, 2018, 29, 9757-9763.	2.2	15
51	Microstructures and properties of SnAgCu lead-free solders bearing CuZnAl particles. Journal of Materials Science: Materials in Electronics, 2019, 30, 15054-15063.	2.2	15
52	Properties of SnAgCu/SnAgCuCe soldered joints for electronic packaging. Journal of Materials Science: Materials in Electronics, 2010, 21, 635-642.	2.2	13
53	Effect of CNTs on the intermetallic compound growth between Sn solder and Cu substrate during aging and reflowing. Journal of Materials Science: Materials in Electronics, 2021, 32, 2655-2666.	2.2	13
54	Finite Element Analysis of SnAgCu(Zn, Co, Fe) Lead-free Solder Joints for Electronic Packaging. International Journal of Nonlinear Sciences and Numerical Simulation, 2014, 15, 197-206.	1.0	10

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55	Reliability of Lead-free Solder Joints in WLCSP Device with Finite Element Simulation and Taguchi Method. International Journal of Nonlinear Sciences and Numerical Simulation, 2014, 15, 405-410.	1.0	10
56	Cu6Sn5 Whiskers Precipitated in Sn3.0Ag0.5Cu/Cu Interconnection in Concentrator Silicon Solar Cells Solder Layer. Materials, 2017, 10, 327.	2.9	10
57	Influences of silicon carbide nanowiresâ€™ addition on IMC growth behavior of pure Sn solder during solidâ€"liquid diffusion. Journal of Materials Science: Materials in Electronics, 2021, 32, 18067-18075.	2.2	10
58	Effects of SiC nanowires on reliability of Sn58Bi-0.05GNSs/Cu solder joints. International Journal of Modern Physics B, 2021, 35, 2150007.	2.0	10
59	Microstructure and properties of Sn-Ag and Sn-Sb lead-free solders in electronics packaging: a review. Journal of Materials Science: Materials in Electronics, 2022, 33, 2259-2292.	2.2	9
60	Reliability of SnAgCu/SnAgCuCe solder joints with different heights for electronic packaging. Journal of Materials Science: Materials in Electronics, 2014, 25, 4489-4494.	2.2	8
61	Research status on surface metallization of diamond. Materials Research Express, 2019, 6, 122005.	1.6	7
62	Effects of nanoparticles on properties and interface reaction of Sn solder for microelectronic packaging. International Journal of Modern Physics B, 2020, 34, 2050064.	2.0	7
63	Interfacial reaction and properties of Sn0.3Ag0.7Cu containing nano-TiN solder joints. Journal of Materials Science: Materials in Electronics, 2022, 33, 3320-3330.	2.2	7
64	Influence of copper nanowires on properties and microstructure of low-Ag Sn-1Ag-0.5Cu solders. Journal of Materials Science: Materials in Electronics, 2022, 33, 7923-7932.	2.2	7
65	Sizes effect of CeSn3 on the whiskers growth of SnAgCuCe solder joints in electronic packaging. Journal of Materials Science: Materials in Electronics, 2015, 26, 6194-6197.	2.2	6
66	Whisker growth on SnAgCuâ€"xPr solders in electronic packaging. Journal of Materials Science: Materials in Electronics, 2016, 27, 5618-5621.	2.2	6
67	Properties and microstructure evolution of Snâ€"Cuâ€"Ni/Cu joints bearing carbon nanotubes and graphene nanosheets for solar cell. Journal of Materials Science: Materials in Electronics, 2020, 31, 21758-21766.	2.2	6
68	Microstructure evolution of Cu/Sn58Bi/Cu solder joint bearing graphene nanosheets for 3D packaging. Journal of Materials Science: Materials in Electronics, 2021, 32, 16970-16978.	2.2	6
69	Influence of doping Ti particles on intermetallic compounds growth at Sn58Bi/Cu interface during solidâ€"liquid diffusion. Journal of Materials Science: Materials in Electronics, 2021, 32, 3341-3351.	2.2	6
70	The Influence of Carbon Nanotubes on the Properties of Sn Solder. Materials Transactions, 2020, 61, 718-722.	1.2	6
71	Effect of Ni3Sn4 on the Thermo-Mechanical Fatigue Life of Solder Joints in 3D IC. Frontiers in Materials, 2021, 8, .	2.4	5
72	Reliability and strength of Cuâ€"Sn0.5CuZnAlâ€"Cu TLP bonded joints during thermal cycling. Journal of Materials Science: Materials in Electronics, 2021, 32, 19264-19274.	2.2	5

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73	Structure and Properties of Auâ€“Sn Lead-Free Solders in Electronic Packaging. Materials Transactions, 2022, 63, 93-104.	1.2	5
74	Wettability, interfacial reaction and mechanical properties of Sn/Snâ€“CuZnAl solder and Cu sheet during solidâ€“liquid diffusion. Journal of Materials Science: Materials in Electronics, 2019, 30, 18462-18470.	2.2	4
75	The analysis of the fracture mechanism of thermal simulation CGHAZ of AHSS DP780: based on response surface method and quantum genetic algorithm. Welding in the World, Le Soudage Dans Le Monde, 2021, 65, 563-572.	2.5	4
76	Interfacial reaction and properties of Sn/Cu solder reinforced with graphene nanosheets during solidâ€“liquid diffusion and reflowing. Journal of Materials Science: Materials in Electronics, 2021, 32, 26666-26675.	2.2	4
77	Wettability optimization analysis of lead-free solders with Taguchi method. Journal of Materials Science: Materials in Electronics, 2015, 26, 2605-2608.	2.2	3
78	Determination of La/CeO2 content in ilmenite electrode coating. Rare Metals, 2015, 34, 505-509.	7.1	3
79	Numerical simulation and welding parameters optimization for minimum deformation of AHSS based on RSM & QGA. Materials Research Express, 2019, 6, 1165e9.	1.6	3
80	Effect of Thermal Cyclic Loading on Stress-Strain Response and Fatigue Life of 3D Chip Stacking Structure. Chinese Journal of Mechanical Engineering (English Edition), 2021, 34, .	3.7	3
81	Effect Mechanism of Rare Earth on the Microstructures of SnAgCu Solder Joints. Jixie Gongcheng Xuebao/Chinese Journal of Mechanical Engineering, 2012, 48, 55.	0.5	2
82	Effect of Nd on whiskers growth behavior of SnAgCu solders in electronic packaging. Journal of Materials Science: Materials in Electronics, 2016, 27, 9584-9588.	2.2	1
83	Alkaline fermentation and elutriation of waste activated sludge for short chain fatty acids abstraction. Journal of Chemical Technology and Biotechnology, 2018, 93, 138-145.	3.2	0
84	Influence of SiC nanowires on the microstructures and properties of Agâ€“Cuâ€“Ti filler metals and brazed joints. International Journal of Modern Physics B, 2022, 36, .	2.0	0