# Liang Zhang

List of Publications by Year
in descending order

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Version: 2024-02-01

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|---|---|---|---|
| 84<br>papers | 2,808<br>citations | 159585<br>30<br>h-index | 189892<br>50<br>g-index |
| 86<br>all docs | 86<br>docs citations | 86<br>times ranked | 1067<br>citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | 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 |
| 2 | 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 |
| 3 | Structure and Properties of Auâ€“Sn Lead-Free Solders in Electronic Packaging. Materials Transactions, 2022, 63, 93-104. | 1.2 | 5 |
| 4 | 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 |
| 5 | 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 |
| 6 | 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 |
| 7 | 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 |
| 8 | Materials modification of the lead-free solders incorporated with micro/nano-sized particles: A review. Materials and Design, 2021, 197, 109224. | 7.0 | 59 |
| 9 | 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 |
| 10 | Effect of Ni3Sn4 on the Thermo-Mechanical Fatigue Life of Solder Joints in 3D IC. Frontiers in Materials, 2021, 8, . | 2.4 | 5 |
| 11 | 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 |
| 12 | 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 |
| 13 | Filler metals, brazing processing and reliability for diamond tools brazing: A review. Journal of Manufacturing Processes, 2021, 66, 651-668. | 5.9 | 48 |
| 14 | 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 |
| 15 | Recent advances on SnBi low-temperature solder for electronic interconnections. Journal of Materials Science: Materials in Electronics, 2021, 32, 22731-22759. | 2.2 | 24 |
| 16 | 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 |
| 17 | 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 |
| 18 | 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 |

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| 19 | 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 |
| 20 | 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 |
| 21 | 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 |
| 22 | Recent progress in SLID bonding in novel 3D-IC technologies. Journal of Alloys and Compounds, 2020, 818, 152825. | 5.5 | 71 |
| 23 | Effect of addition of CuZnAl particle on the properties of Sn solder joint. Journal of Materials Processing Technology, 2020, 278, 116507. | 6.3 | 19 |
| 24 | 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 |
| 25 | 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 |
| 26 | 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 |
| 27 | 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 |
| 28 | 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 |
| 29 | The Influence of Carbon Nanotubes on the Properties of Sn Solder. Materials Transactions, 2020, 61, 718-722. | 1.2 | 6 |
| 30 | 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 |
| 31 | Research status on surface metallization of diamond. Materials Research Express, 2019, 6, 122005. | 1.6 | 7 |
| 32 | Numerical simulation and welding parameters optimization for minimum deformation of AHSS based on RSM & QGA. Materials Research Express, 2019, 6, 1165e9. | 1.6 | 3 |
| 33 | Reliability issues of lead-free solder joints in electronic devices. Science and Technology of Advanced Materials, 2019, 20, 876-901. | 6.1 | 104 |
| 34 | 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 |
| 35 | 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 |
| 36 | Effect of CuZnAl particles addition on microstructure of Cu/Sn58Bi/Cu TLP bonding solder joints. Vacuum, 2019, 167, 301-306. | 3.5 | 54 |

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| 37 | 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 |
| 38 | 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 |
| 39 | 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 |
| 40 | 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 |
| 41 | Materials, processing and reliability of low temperature bonding in 3D chip stacking. Journal of Alloys and Compounds, 2018, 750, 980-995. | 5.5 | 72 |
| 42 | 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 |
| 43 | 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 |
| 44 | 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 |
| 45 | Effects of CuZnAl Particles on Properties and Microstructure of Sn-58Bi Solder. Materials, 2017, 10, 558. | 2.9 | 19 |
| 46 | Cu6Sn5 Whiskers Precipitated in Sn3.0Ag0.5Cu/Cu Interconnection in Concentrator Silicon Solar Cells Solder Layer. Materials, 2017, 10, 327. | 2.9 | 10 |
| 47 | Properties and Microstructures of Sn-Bi-X Lead-Free Solders. Advances in Materials Science and Engineering, 2016, 2016, 1-15. | 1.8 | 24 |
| 48 | 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 |
| 49 | Whisker growth on SnAgCuâ€“xPr solders in electronic packaging. Journal of Materials Science: Materials in Electronics, 2016, 27, 5618-5621. | 2.2 | 6 |
| 50 | 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 |
| 51 | 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 |
| 52 | 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 |
| 53 | Wettability optimization analysis of lead-free solders with Taguchi method. Journal of Materials Science: Materials in Electronics, 2015, 26, 2605-2608. | 2.2 | 3 |
| 54 | 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 |

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| 55 | Creep behavior of SnAgCu solders containing nano-Al particles. Journal of Materials Science: Materials in Electronics, 2015, 26, 3615-3620. | 2.2 | 18 |
| 56 | Determination of La/CeO2 content in ilmenite electrode coating. Rare Metals, 2015, 34, 505-509. | 7.1 | 3 |
| 57 | 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 |
| 58 | 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 |
| 59 | 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 |
| 60 | 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 |
| 61 | 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 |
| 62 | Properties enhancement of SnAgCu solders containing rare earth Yb. Materials & Design, 2014, 57, 646-651. | 5.1 | 44 |
| 63 | 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 |
| 64 | Structure and properties of lead-free solders bearing micro and nano particles. Materials Science and Engineering Reports, 2014, 82, 1-32. | 31.8 | 248 |
| 65 | 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 |
| 66 | 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 |
| 67 | 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 |
| 68 | Reliability behavior of lead-free solder joints in electronic components. Journal of Materials Science: Materials in Electronics, 2013, 24, 172-190. | 2.2 | 65 |
| 69 | 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 |
| 70 | Effect of Zn on properties and microstructure of SnAgCu alloy. Journal of Materials Science: Materials in Electronics, 2012, 23, 1950-1956. | 2.2 | 34 |
| 71 | 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 |
| 72 | Development of SnAg-based lead free solders in electronics packaging. Microelectronics Reliability, 2012, 52, 559-578. | 1.7 | 94 |

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| 73 | 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 |
| 74 | 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 |
| 75 | 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 |
| 76 | Recent advances on Snâ€“Cu solders with alloying elements: review. Journal of Materials Science: Materials in Electronics, 2011, 22, 565-578. | 2.2 | 61 |
| 77 | Development of Snâ€“Zn lead-free solders bearing alloying elements. Journal of Materials Science: Materials in Electronics, 2010, 21, 1-15. | 2.2 | 106 |
| 78 | 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 |
| 79 | Properties of SnAgCu/SnAgCuCe soldered joints for electronic packaging. Journal of Materials Science: Materials in Electronics, 2010, 21, 635-642. | 2.2 | 13 |
| 80 | 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 |
| 81 | 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 |
| 82 | 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 |
| 83 | 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 |
| 84 | 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 |