Jae Pil Jung

List of Publications by Year
in descending order

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99	1,581	331259 21	414034 32
papers	citations	h-index	g-index

101	101	101	848
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Investigating the physical, mechanical, and reliability study of high entropy alloy reinforced Snâ€“3.0Agâ€“0.5Cu solder using 1608 chip capacitor/ENIG joints. Journal of Materials Science: Materials in Electronics, 2022, 33, 3687-3710.	1.1	5
2	Effect of Surface Pretreatment and Plating Time on Electromagnetic Shielding Reliability of Electroless Plated Copper Layer Conductors. ACS Applied Electronic Materials, 2022, 4, 1019-1028.	2.0	8
3	A Review of the Brazeability of Low-Temperature and Nano-Reinforced Al-Based Brazing Filler Metals. Journal of Welding and Joining, 2022, 40, 216-224.	0.6	1
4	Comparative study on the wettability and thermal aging characteristics of SAC 305 nanocomposite solder fabricated by stir-casting and ultrasonic treatment. Materials Today Communications, 2022, 31, 103814.	0.9	6
5	Transient liquid phase bonding of silicon and direct bond copper via electroplating of tin-copper interlayers for power device applications. Materials Research Express, 2021, 8, 016301.	0.8	4
6	Ultrasonic-Assisted Dispersion of ZnO Nanoparticles to Sn-Bi Solder: A Study on Microstructure, Spreading, and Mechanical Properties. Journal of Materials Engineering and Performance, 2021, 30, 3167-3172.	1.2	22
7	Recent Trends in Noble Metal Nanoparticles for Colorimetric Chemical Sensing and Micro-Electronic Packaging Applications. Metals, 2021, 11, 329.	1.0	20
8	Low Melting Temperature Sn-Bi Solder: Effect of Alloying and Nanoparticle Addition on the Microstructural, Thermal, Interfacial Bonding, and Mechanical Characteristics. Metals, 2021, 11, 364.	1.0	42
9	Cu Protrusion of Different through-Silicon via Shapes under Annealing Process. Journal of Materials Engineering and Performance, 2021, 30, 4712-4720.	1.2	15
10	Three-Dimesnional Semicondoctor Stacking using TSV(Through-Si-Via) Technology. Journal of Welding and Joining, 2021, 39, 295-303.	0.6	1
11	Recent Advancements in AI-Enabled Smart Electronics Packaging for Structural Health Monitoring. Metals, 2021, 11, 1537.	1.0	15
12	A Review on the Fabrication and Reliability of Three-Dimensional Integration Technologies for Microelectronic Packaging: Through-Si-via and Solder Bumping Process. Metals, 2021, 11, 1664.	1.0	14
13	Recent Advances in Active Metal Brazing of Ceramics and Process. Metals and Materials International, 2020, 26, 1087-1098.	1.8	42
14	Shear Strength and Aging Characteristics of Sn-3.0Ag-0.5Cu/Cu Solder Joint Reinforced with ZrO2 Nanoparticles. Metals, 2020, 10, 1295.	1.0	18
15	Recent Progress in Transient Liquid Phase and Wire Bonding Technologies for Power Electronics. Metals, 2020, 10, 934.	1.0	20
16	Electrical and Mechanical Analysis of Different TSV Geometries. Metals, 2020, 10, 467.	1.0	12
17	Liquid Metal Embrittlement of Galvanized TRIP Steels in Resistance Spot Welding. Metals, 2020, 10, 787.	1.0	18
18	Recent Low Temperature Solder of SnBi and Its Bonding Characteristics. Journal of Welding and Joining, 2020, 38, 576-583.	0.6	2

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19	Liquid Metal Embrittlement of Resistance Spot Welded 1180 TRIP Steel: Effect of Electrode Force on Cracking Behavior. Metals and Materials International, 2019, 25, 219-228.	1.8	55
20	Influence of Arc Brazing Parameters on Microstructure and Joint Properties of Electro-Galvanized Steel. Metals, 2019, 9, 1006.	1.0	9
21	Review of the wettability of solder with a wetting balance test for recent advanced microelectronic packaging. Critical Reviews in Solid State and Materials Sciences, 2019, 44, 324-343.	6.8	22
22	Effect of different nanoparticles on microstructure, wetting and joint strength of Alâ€“12Siâ€“20Cu braze filler. Materials Research Express, 2019, 6, 056526.	0.8	11
23	Epoxy Polymer Solder Pastes for Micro-Electronic Packaging Applications. Journal of Welding and Joining, 2019, 37, 7-14.	0.6	18
24	Influence of dual ceramic nanomaterials on the solderability and interfacial reactions between lead-free Sn-Ag-Cu and a Cu conductor. Journal of Alloys and Compounds, 2018, 743, 300-313.	2.8	55
25	Real time resistance monitoring during sintering of silver paste. Journal of Alloys and Compounds, 2018, 731, 504-514.	2.8	6
26	A review of soft errors and the low Î±-solder bumping process in 3-D packaging technology. Journal of Materials Science, 2018, 53, 47-65.	1.7	13
27	A Review on Recent Advances in Transient Liquid Phase (TLP) Bonding for Thermoelectric Power Module. Reviews on Advanced Materials Science, 2018, 53, 147-160.	1.4	56
28	Effect of ZrO2 Nanomaterials on Wettability and Interfacial Characteristics of Al-19Cu-11Si-2Sn Filler Metal for Low Temperature Al to Cu Dissimilar Brazing. Nanomaterials, 2018, 8, 784.	1.9	2
29	Effect of Sn Content on Filler and Bonding Characteristics of Active Metal Brazed Cu/Al2O3 Joint. Journal of Korean Institute of Metals and Materials, 2018, 56, 366-374.	0.4	14
30	Influence of Nanosized AlN Powders on the Microstructure, Brazeability, and Tensile Properties of Al-based Filler for Low Temperature Al/Cu Dissimilar Brazing. Journal of Korean Institute of Metals and Materials, 2018, 56, 664-673.	0.4	1
31	Effect of high temperature high humidity and thermal shock test on interfacial intermetallic compounds (IMCs) growth of low alpha solders. Journal of Materials Science: Materials in Electronics, 2017, 28, 8116-8129.	1.1	13
32	Thermal cycling, shear and insulating characteristics of epoxy embedded Sn-3.0Ag-0.5Cu (SAC305) solder paste for automotive applications. Journal of Alloys and Compounds, 2017, 704, 795-803.	2.8	33
33	Effect of brazing current and speed on the bead characteristics, microstructure, and mechanical properties of the arc brazed galvanized steel sheets. Journal of Materials Processing Technology, 2017, 249, 212-220.	3.1	23
34	Effect of KOH to Na2SiO3 Ratio on Microstructure and Hardness of Plasma Electrolytic Oxidation Coatings on AA 6061 Alloy. Journal of Materials Engineering and Performance, 2017, 26, 5032-5042.	1.2	18
35	Effects of AlN Nanoparticles on the Microstructure, Solderability, and Mechanical Properties of Sn-Ag-Cu Solder. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 4372-4384.	1.1	21
36	Application of Surface Protective Coating to Enhance Environment-Withstanding Property of the MEMS 2D Wind Direction and Wind Speed Sensor. Sensors, 2017, 17, 2152.	2.1	5

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37	Recent Advances in Thermoelectric Power Generation Technology. Journal of the Microelectronics and Packaging Society, 2017, 24, 9-16.	0.1	10
38	Trasient Liquid Phase bonding for Power Semiconductor. Journal of the Microelectronics and Packaging Society, 2017, 24, 27-34.	0.1	5
39	Joint Properties and Thermomechanical Reliability of Nanoparticle-Added Sn-Ag-Cu Solder Paste. , 2016, , .		1
40	Compressive Strength Evaluation in Brazed ZrO2/Ti6Al4V Joints Using Finite Element Analysis. Journal of Materials Engineering and Performance, 2016, 25, 1722-1728.	1.2	10
41	Fabrication and shear strength analysis of Sn-3.5Ag/Cu-filled TSV for 3D microelectronic packaging. Electronic Materials Letters, 2016, 12, 856-863.	1.0	18
42	Effect of La2O3 Nanoparticles on the Brazeability, Microstructure, and Mechanical Properties of Al-11Si-20Cu Alloy. Journal of Materials Engineering and Performance, 2016, 25, 3538-3545.	1.2	10
43	Effect of ZrO2 Nanoparticles on the Microstructure of Al-Si-Cu Filler for Low-Temperature Al Brazing Applications. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 510-521.	1.1	24
44	Effect of Graphene Nanoplatelets on Wetting, Microstructure, and Tensile Characteristics of Sn-3.0Ag-0.5Cu (SAC) Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 494-503.	1.1	54
45	Microstructure and brazeability of SiC nanoparticles reinforced Alâ€“9Siâ€“20Cu produced by induction melting. Materials Science and Technology, 2016, 32, 773-779.	0.8	17
46	Recent Progress in Electroless Plating of Copper. Journal of the Microelectronics and Packaging Society, 2016, 23, 1-6.	0.1	25
47	Lower Protrusion of a Copper-Nickel Alloy in a Through-Silicon via and Its Numerical Simulation. Materials Transactions, 2015, 56, 2034-2041.	0.4	7
48	Electromigration of composite Sn-Ag-Cu solder bumps. Electronic Materials Letters, 2015, 11, 1072-1077.	1.0	27
49	Influence of La2O3 nanoparticle additions on microstructure, wetting, and tensile characteristics of Snâ€“Agâ€“Cu alloy. Materials and Design, 2015, 87, 370-379.	3.3	70
50	Extrusion Suppression of TSV Filling Metal by Cu-W Electroplating for Three-Dimensional Microelectronic Packaging. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 2051-2062.	1.1	34
51	Effect of Current Density and Plating Time on Cu Electroplating in TSV and Low Alpha Solder Bumping. Journal of Materials Engineering and Performance, 2015, 24, 1107-1115.	1.2	27
52	Effect of Soldering Temperature on Wetting and Optical Density of Dip Coated Sn and Sn-3.5Ag Solders. Materials and Manufacturing Processes, 2015, 30, 127-132.	2.7	8
53	Effect of current density on morphology of electroplated tin. Surface Engineering, 2015, 31, 458-464.	1.1	35
54	Sn-Ag-Cu to Cu joint current aging test and evolution of resistance and microstructure. Electronic Materials Letters, 2015, 11, 1078-1084.	1.0	8

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55	High Shear Speed Characteristics of Sub-100 Î¼m Low Alpha SAC105 Solder Bump Directly Fabricated on Cu Filled Through Si Via for 3D Integration. Journal of Microelectronics and Electronic Packaging, 2015, 12, 161-169.	0.8	3
56	Cu Electroplating and Low Alpha Solder Bumping on TSV for 3-D Packaging. Journal of the Microelectronics and Packaging Society, 2015, 22, 7-14.	0.1	1
57	Microstructure, shear strength, and nanoindentation property of electroplated Snâ€“Bi micro-bumps. Microelectronics Reliability, 2014, 54, 265-271.	0.9	23
58	Effect of aluminium additions on wettability and intermetallic compound (IMC) growth of lead free Sn (2 wt. % Ag, 5 wt. % Bi) soldered joints. Electronic Materials Letters, 2014, 10, 997-1004.	1.0	32
59	Analysis of the electrical characteristics and structure of Cu-Filled TSV with thermal shock test. Electronic Materials Letters, 2014, 10, 649-653.	1.0	13
60	Effect of thermal shock on Cu extrusion of TSV for three-dimensional packaging. Journal of Korean Institute of Metals and Materials, 2014, 52, 459-465.	0.4	8
61	Electrical characteristics and thermal shock properties of Cu-filled TSV prepared by laser drilling. Electronic Materials Letters, 2013, 9, 389-392.	1.0	13
62	Wetting behavior and elastic properties of low alpha SAC105 and pure Sn solder. Journal of Materials Science: Materials in Electronics, 2013, 24, 1748-1757.	1.1	9
63	Reflection characteristics of electroless deposited Sn-3.5Ag for LED lead frames. Surface and Coatings Technology, 2013, 235, 778-783.	2.2	12
64	Non-PR Sn-3.5Ag Bumping on a Fast Filled Cu-Plug by PPR Current. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2013, 3, 574-580.	1.4	4
65	High speed Cu-Ni filling into TSV for 3-Dimensional Si chip stacking. Metals and Materials International, 2013, 19, 123-128.	1.8	16
66	Stencil printing behavior of lead-free Sn-3Ag-0.5Cu solder paste for wafer level bumping for Sub-100 Î¼m size solder bumps. Metals and Materials International, 2013, 19, 1083-1090.	1.8	16
67	Electroplating Characteristics of Snâ€“Bi Microbumps for Low-Temperature Soldering. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2013, 3, 566-573.	1.4	4
68	Various Cu Filling Methods of TSV for Three Dimensional Packaging. Journal of Welding and Joining, 2013, 31, 11-16.	0.3	1
69	Reflectivity and Thermal Shock Properties of Sn-3.5Ag Electroless-plated Deposit for LED Lead Frames. Journal of Korean Institute of Metals and Materials, 2013, 51, 89-94.	0.4	1
70	Reflection Characteristics of Displacement Deposited Sn for LED Lead Frame. Materials Transactions, 2012, 53, 946-950.	0.4	17
71	Fabrication of electroplate Sn-Ag bumps without a lithography process for 3D packaging. Metals and Materials International, 2012, 18, 487-491.	1.8	7
72	Characteristics of electroplated Sn bumps fabricated without a PR mould on a Si chip for 3D packaging. Microelectronic Engineering, 2012, 93, 85-90.	1.1	6

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73	Wetting Property and Reflectivity of Sn-3.5Ag Solder by Plating for LED Lead Frame. Journal of Korean Institute of Metals and Materials, 2012, 50, 563-568.	0.4	4
74	Reduction of defects in TSV filled with Cu by high-speed 3-step PPR for 3D Si chip stacking. Microelectronics Reliability, 2011, 51, 2228-2235.	0.9	56
75	Analysis of high speed shear characteristics of Sn-Ag-Cu solder joints. Electronic Materials Letters, 2011, 7, 365-373.	1.0	20
76	Electrodeposition of the Sn-58 wt.%Bi layer for low-temperature soldering. Metals and Materials International, 2011, 17, 117-121.	1.8	25
77	New process of electroplate Sn bumping on TSV without a PR mould for 3D-chip stacking. Metals and Materials International, 2011, 17, 631-635.	1.8	2
78	Effect of Shearing Speed on High Speed Shear Properties of Sn1.0Ag0.5Cu Solder Bump on Various UBMâ€™s. Journal of Korean Institute of Metals and Materials, 2011, 49, 237-242.	0.4	5
79	Effect of Shearing Speed and UBMs on High Speed Shear Properties of Sn3.0Ag0.5Cu Solder Ball. Journal of Korean Institute of Metals and Materials, 2011, 49, 635-641.	0.4	6
80	Effects of Steel Coatings on Electrode Life in Resistance Spot Welding of Galvannealed Steel Sheets. Materials Transactions, 2010, 51, 2236-2242.	0.4	14
81	Effects of welding parameters and surface pretreatments on resistance spot welding of AZ31B Mg alloy. Metals and Materials International, 2010, 16, 967-974.	1.8	6
82	Sn Bumping Without Photoresist Mould and Si Dice Stacking for 3-D Packaging. IEEE Transactions on Advanced Packaging, 2010, 33, 912-917.	1.7	11
83	Finite Element Modeling of Simultaneous Ultrasonic Bumping With Au Balls. Journal of Electronic Packaging, Transactions of the ASME, 2009, 131, .	1.2	2
84	Effects of surface conditions on resistance spot welding of Mg alloy AZ31. Science and Technology of Welding and Joining, 2009, 14, 356-361.	1.5	36
85	Ambient Temperature Ultrasonic Bonding of Si-Dice Using Sn-3.5wt.%Ag. Journal of Electronic Materials, 2008, 37, 324-330.	1.0	19
86	Characteristics of Sn8Zn3Bi solder joints and crack resistance with various PCB and lead coatings. Microelectronics Reliability, 2008, 48, 631-637.	0.9	8
87	Effect of Laser Parameter on the Bond Characteristics of Sn-3.5%Ag Solder Ball. Materials Science Forum, 2008, 580-582, 191-196.	0.3	0
88	Bonding mechanism in ultrasonic gold ball bonds on copper substrate. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2005, 36, 1279-1286.	1.1	53
89	The correlation between stress relaxation and steady-state creep of eutectic Sn-Pb. Journal of Electronic Materials, 2005, 34, 1287-1300.	1.0	7
90	Effect of Plasma Cleaning on Fluxless Plasma Soldering of Pb-free Solder Balls on Si-wafer. Materials Transactions, 2004, 45, 1880-1885.	0.4	3

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91	Microstructure and Mechanical Properties of Partial Melted Joint Using off Eutectic Lead-Free Solders. Materials Transactions, 2001, 42, 814-819.	0.4	3
92	Study on the soldering in partial melting state (1) analysis of surface tension and wettability. Journal of Electronic Materials, 2000, 29, 1145-1152.	1.0	21
93	Effects of Interfacial Phases on Bond Strength of Diffusion-Bonded Joints of Al-X Binary Alloys (X=Mg, Si, Mn, Zn, Cu). Diffusion-Bonding Mechanism of Al Alloys by Transmission Electron Microscopy. (Report 6).. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 2000, 18, 580-589.	0.1	5
94	The analysis of the withdrawal force curve of the wetting curve using 63Sn-37Pb and 96.5Sn-3.5Ag eutectic solders. Journal of Electronic Materials, 1999, 28, 1256-1262.	1.0	32
95	The analysis of the withdrawal force curve of the wetting balance curve. IEEE Transactions on Components and Packaging Technologies, 1999, 22, 372-377.	1.4	8
96	A STUDY ON WETTABILITY AND DEFECTS BEHAVIOR OF FLOW-SOLDERED JOINT USING LOW RESIDUE FLUX. Journal of Electronics Manufacturing, 1998, 08, 235-241.	0.4	8
97	Transient Liquid Phase Process in Ni–B Joining. Materials Transactions, JIM, 1997, 38, 886-891.	0.9	3
98	Interfacial Phases in Diffusion-Bonded Joints of Al-X Alloys (X=Mg,Si,Mn,Zn,Cu). Diffusion-Bonding Mechanism of Al Alloys by Transmission Electron Microscopy. (Report 5).. Yosetsu Gakkai Ronbunshu/Quarterly Journal of the Japan Welding Society, 1997, 15, 352-358.	0.1	1
99	Liquid Phase Diffusion Bonding of Rene80 Using Pure Boron. Materials Transactions, JIM, 1996, 37, 1008-1013.	0.9	7