Young-Bae Park

List of Publications by Year
in descending order

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98	1,019	18	28
papers	citations	h-index	g-index
		430874	501196

98	98	98	613
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Effect of Wet Pretreatment on Interfacial Adhesion Energy of Cu-Cu Thermocompression Bond for 3D IC Packages. Journal of Electronic Materials, 2009, 38, 2449-2454.	2.2	78
2	Temperature Effect on Intermetallic Compound Growth Kinetics of Cu Pillar/Sn Bumps. Journal of Electronic Materials, 2009, 38, 2228-2233.	2.2	70
3	Electrochemical migration characteristics of eutectic SnPb solder alloy in printed circuit board. Thin Solid Films, 2006, 504, 294-297.	1.8	60
4	Intermetallic Compound Growth and Reliability of Cu Pillar Bumps Under Current Stressing. Journal of Electronic Materials, 2010, 39, 2281-2285.	2.2	49
5	Effects of annealing and current stressing on the intermetallic compounds growth kinetics of Cu/thin Sn/Cu bump. Microelectronic Engineering, 2012, 89, 50-54.	2.4	41
6	Effect of Ionization Characteristics on Electrochemical Migration Lifetimes of Sn-3.0Ag-0.5Cu Solder in NaCl and Na2SO4 Solutions. Journal of Electronic Materials, 2008, 37, 1111-1118.	2.2	38
7	Effect of Cuâ€“Sn intermetallic compound reactions on the Kirkendall void growth characteristics in Cu/Sn/Cu microbumps. Japanese Journal of Applied Physics, 2014, 53, 05HA06.	1.5	35
8	Annealing temperature effect on the Cu-Cu bonding energy for 3D-IC integration. Metals and Materials International, 2011, 17, 105-109.	3.4	34
9	Effects of surface finishes and loading speeds on shear strength of Snâ€“3.0Agâ€“0.5Cu solder joints. Microelectronic Engineering, 2012, 89, 55-57.	2.4	30
10	Thermal fatigue as a possible failure mechanism in copper interconnects. Thin Solid Films, 2006, 504, 321-324.	1.8	27
11	Correlations between interfacial reactions and bonding strengths of Cu/Sn/Cu pillar bump. Microelectronic Engineering, 2012, 89, 65-69.	2.4	27
12	Frequency effect on thermal fatigue damage in Cu interconnects. Thin Solid Films, 2007, 515, 3253-3258.	1.8	25
13	Coupled self-assembled monolayer for enhancement of Cu diffusion barrier and adhesion properties. RSC Advances, 2014, 4, 60123-60130.	3.6	22
14	Mechanical stress evolution in metal interconnects for various line aspect ratios and passivation dielectrics. Microelectronic Engineering, 2003, 69, 26-36.	2.4	21
15	Analysis of the reservoir effect on electromigration reliability. Microelectronics Reliability, 2004, 44, 917-928.	1.7	21
16	Electrochemical Migration Characteristics of Eutectic Sn-Pb Solder Alloy in NaCl and Na2SO4 Solutions. Journal of Electronic Materials, 2009, 38, 691-699.	2.2	21
17	Interfacial Reaction Effect on Electrical Reliability of Cu Pillar/Sn Bumps. Journal of Electronic Materials, 2010, 39, 2368-2374.	2.2	20
18	Effect of annealing on the interfacial adhesion energy between electroless-plated Ni and polyimide. Metals and Materials International, 2011, 17, 111-115.	3.4	18

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19	Interfacial Adhesion Characteristics Between Electroless-Plated Ni and Polyimide Films Modified by Alkali Surface Pretreatment. Journal of Electronic Materials, 2009, 38, 2455-2460.	2.2	17
20	Transparent electrodes based on spray coated fluorine-doped tin oxide with enhanced optical, electrical and mechanical properties. Journal of Materials Chemistry C, 2020, 8, 14531-14539.	5.5	17
21	Analysis of failure of nanobelt-coated copper-based leadframe/epoxy-based molding compound systems after pull-out test. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 405, 50-64.	5.6	16
22	Relationship between edge drift and atomic migration during electromigration of eutectic SnPb lines. Journal of Applied Physics, 2006, 100, 033715.	2.5	16
23	Effect of isothermal aging on intermetallic compounds and Kirkendall void growth kinetics of Au stud bumps. Metals and Materials International, 2009, 15, 819-823.	3.4	15
24	Effect of HF & H2SO4 pretreatment on interfacial adhesion energy of Cuâ€“Cu direct bonds. Microelectronic Engineering, 2012, 89, 42-45.	2.4	15
25	Effects of Surface Finishes and Current Stressing on Interfacial Reaction Characteristics of Sn-3.0Ag-0.5Cu Solder Bumps. Journal of Electronic Materials, 2012, 41, 791-799.	2.2	14
26	Ni Barrier Symmetry Effect on Electromigration Failure Mechanism of Cu/Snâ€“Ag Microbump. Electronic Materials Letters, 2019, 15, 149-158.	2.2	14
27	In-Situ Observation of Electromigration in Eutectic SnPb Solder Lines: Atomic Migration and Hillock Formation. Journal of Electronic Materials, 2007, 36, 562-567.	2.2	12
28	Microstructure evolution in Cu pillar/eutectic SnPb solder system during isothermal annealing. Metals and Materials International, 2009, 15, 815-818.	3.4	12
29	Effect of the composition of Sn-Pb alloys on the microstructure of filaments and the electrochemical migration characteristics. Metals and Materials International, 2011, 17, 617-621.	3.4	11
30	Effects of surface finishes and current stressing on the interfacial reaction characteristics of Snâ€“1.2Agâ€“0.7Cuâ€“0.4In solder bumps. Current Applied Physics, 2013, 13, S103-S107.	2.4	11
31	Effects of mechanical stress at no current stressed area on electromigration reliability of multilevel interconnects. Microelectronic Engineering, 2004, 71, 76-89.	2.4	10
32	Effects of AlOx incorporation into atomic layer deposited Ru thin films: Applications to Cu direct plating technology. Journal of Alloys and Compounds, 2013, 580, 72-81.	5.5	10
33	Effect of Temperature/Humidity Treatment Conditions on Interfacial Adhesion Energy between Inkjet-Printed Ag and Polyimide. Japanese Journal of Applied Physics, 2009, 48, 08HL02.	1.5	8
34	Effects of graphene oxide on the electromigration lifetime of lead-free solder joints. Journal of Materials Science: Materials in Electronics, 2019, 30, 2334-2341.	2.2	8
35	Intermetallic compound and Kirkendall void growth in Cu pillar bump during annealing and current stressing. , 2008, , .		7
36	Abnormal Failure Behavior of Sn-3.5Ag Solder Bumps Under Excessive Electric Current Stressing Conditions. Journal of Electronic Materials, 2009, 38, 2194-2200.	2.2	7

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37	Effect of CF4 plasma treatment on the interfacial fracture energy between inkjet-printed Ag and flexible polyimide films. Surface and Coatings Technology, 2010, 205, 423-429.	4.8	7
38	Effects of Temperature and Humidity Treatment Conditions on the Interfacial Adhesion Energy between the Electroless-Plated Ni and Polyimide. Japanese Journal of Applied Physics, 2010, 49, 08JK01.	1.5	7
39	The effect of plasma pre-cleaning on the Cu-Cu direct bonding for 3D chip stacking.. , 2011, , .		7
40	Effects of two-step plasma treatment on Cu and SiO₂ surfaces for 3D bonding applications. , 2020, , .		7
41	Electromigration Characteristics of Flip Chip Sn-3.5Ag Solder Bumpsunder Highly Accelerated Conditions. Journal of the Korean Physical Society, 2009, 54, 1784-1792.	0.7	7
42	Interfacial Adhesion Energy of Ruâ€“AlO Thin Film Deposited by Atomic Layer Deposition between Cu and SiO₂: Effect of the Composition of Ruâ€“AlO Thin Film. Japanese Journal of Applied Physics, 2012, 51, 05EB04.	1.5	7
43	Properties of nanocrystalline CuAg foil prepared via electrodeposition. Journal of Alloys and Compounds, 2021, 881, 160522.	5.5	6
44	Effect of Post-Baking Treatment Conditions on the Interfacial Adhesion Energy between Electroless-Plated Ni and Polyimide Films. Journal of the Korean Physical Society, 2009, 54, 1273-1277.	0.7	6
45	Size Effect on the Electromigration Characteristics of Flip Chip Pb-free Solder Bumps. Electronic Materials Letters, 2022, 18, 431-439.	2.2	6
46	Effect of Ar+ Radiofrequency Plasma Treatment Conditions on the Interfacial Adhesion Energy Between Atomic-Layer-Deposited Al2O3 and Cu Thin Films in Embedded Capacitors. Journal of Electronic Materials, 2008, 37, 1565-1573.	2.2	5
47	Interfacial reaction kinetics in Au stud/Sn bumps during annealing and current stressing. Current Applied Physics, 2011, 11, S124-S127.	2.4	5
48	Effect of Post-Chemicalâ€“Mechanical Polishing Surface Treatments on the Interfacial Adhesion Energy between Cu and a Capping Layer. Japanese Journal of Applied Physics, 2013, 52, 10MC05.	1.5	5
49	Effect of the Thermal Annealing on the Stretchability and Fatigue Failure of the Copper Film on the Polymer Substrate. Journal of Electronic Materials, 2019, 48, 4582-4588.	2.2	5
50	Effect of Electromigration-Induced Joule Heating on the Reliability of Sn-Ag Microbump with Different UBM Structures. Journal of Electronic Materials, 2020, 49, 7228-7237.	2.2	5
51	Effect of Post-Annealing Conditions on Interfacial Adhesion Energy of Cu-Cu Bonding for 3-D IC Integration. Korean Journal of Materials Research, 2008, 18, 204-210.	0.2	5
52	Effect of Annealing Treatment Conditions on the Interfacial Adhesion Energy of Electroless-plated Ni on Polyimide. Korean Journal of Materials Research, 2008, 18, 486-491.	0.2	5
53	Ag Pore Effect on the Interfacial Debonding Energy of an Inkjet-Printed Ag Film on Polyimide. Journal of the Korean Physical Society, 2009, 54, 1288-1292.	0.7	5
54	Size effect on electromigration reliability of pb-free flip chip solder bump. , 2008, , .		4

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55	Current density effects on the electrical reliability of ultra fine-pitch micro-bump for TSV integration. , 2013, , .		4
56	Effects of wet treatment conditions and pattern densities on interfacial bonding characteristics of Cuâ€“Cu direct bonds. Japanese Journal of Applied Physics, 2014, 53, 05HB07.	1.5	4
57	Effects of post-annealing and temperature/humidity treatments on the interfacial adhesion energy of the Cu/SiNxinterface for Cu interconnects. Japanese Journal of Applied Physics, 2016, 55, 06JD01.	1.5	4
58	Degradation Mechanism of Interfacial Adhesion between Screen-Printed Ag/Polyimide in Temperature/Humidity Environment. Electronic Materials Letters, 2021, 17, 157-163.	2.2	4
59	Electromigration polarity effect of Cu/Ni/Sn-Ag microbumps for three-dimensional integrated circuits. , 2017, , .		3
60	Solder Volume Effect on Electromigration Failure Mechanism of Cu/Ni/Sn-Ag Microbumps. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2020, 10, 1589-1593.	2.5	3
61	Volume Shrinkage-Induced Voiding Mechanism During Electromigration of Cu/Ni/Snâ€“Ag Microbump. Journal of Nanoscience and Nanotechnology, 2020, 20, 278-284.	0.9	3
62	Effects of PCB surface finishes on the Mechanical and Electrical Reliabilities of Sn-0.7Cu Pb-free Solder Bump. Journal of Korean Institute of Metals and Materials, 2015, 53, 735-744.	1.0	3
63	Interfacial Adhesion Energy of Ni-P Electroless-plating Contact for Buried Contact Silicon Solar Cell using 4-point Bending Test System. Journal of the Microelectronics and Packaging Society, 2012, 19, 55-60.	0.1	3
64	Effects of Temperature and Current Stressing on the Intermetallic Compounds Growth Characteristics of Cu Pillar/Snâ€“3.5Ag Microbump. Japanese Journal of Applied Physics, 2012, 51, 05EE05.	1.5	3
65	Electrical Reliability and Bending Test Methodologies of Metal Electrode on Flexible Substrate. Journal of Nanoscience and Nanotechnology, 2020, 20, 470-477.	0.9	3
66	Dominant Migration Element in Electrochemical Migration of Eutectic SnPb Solder Alloy. , 0, , .		2
67	Effect of Wet Chemical Pretreatment Conditions on the Interfacial Adhesion Energy between Electroless-Plated Ni and Polyimide Films. Japanese Journal of Applied Physics, 2009, 48, 08HL03.	1.5	2
68	Structure effects on the electrical reliability of fine-pitch Cu micro-bumps for 3D integration. , 2014, , .		2
69	Effects of Post-annealing and Co Interlayer Between SiNx and Cu on the Interfacial Adhesion Energy for Advanced Cu Interconnections. Electronic Materials Letters, 2020, 16, 311-320.	2.2	2
70	Interfacial adhesion energies of Ruâ€“Mn direct plateable diffusion barriers prepared by atomic layer deposition for advanced Cu interconnects. Journal of Materials Science: Materials in Electronics, 2021, 32, 20559-20569.	2.2	2
71	Effect of Interfacial Microstructures on the Bonding Strength of Snâ€“3.0Agâ€“0.5Cu Pb-Free Solder Bump. Japanese Journal of Applied Physics, 2012, 51, 05EE06.	1.5	2
72	Microstructural evidence of the chemical driving force in eutectic SnPb electromigration. Current Applied Physics, 2011, 11, S115-S118.	2.4	1

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73	Solder joint properties of Sn-Ag-Cu solders on environmental-friendly plasma surface finish. , 2013, , .		1
74	Effects of Dielectric Curing Conditions on the Interfacial Adhesion of Cu RDL for Fan-Out Wafer Level Packaging. , 2019, , .		1
75	The role of a nonconductive film (NCF) on Cu/Ni/Sn-Ag microbump interconnect reliability. Journal of Materials Science: Materials in Electronics, 2020, 31, 15530-15538.	2.2	1
76	A study on the interfacial adhesion energy between capping layer and dielectric for cu interconnects. Microelectronics Reliability, 2021, 116, 114020.	1.7	1
77	Effects of Environmental Conditions on Interfacial Adhesion Between Screen-Printed Ag Film and Polyimide Substrate. Journal of Nanoscience and Nanotechnology, 2020, 20, 206-212.	0.9	1
78	Effect of Joule Heating on Electromigration Characteristics of Sn-3.5Ag Flip Chip Solder Bump. Korean Journal of Materials Research, 2007, 17, 91-95.	0.2	1
79	Line Length Effect on Electromigration Characteristics of Eutectic SnPb Solder. Korean Journal of Materials Research, 2007, 17, 371-375.	0.2	1
80	Effects of PCB Surface Finishes on in-situ Intermetallics Growth and Electromigration Characteristics of Sn-3.0Ag-0.5Cu Pb-free Solder Joints. Journal of the Microelectronics and Packaging Society, 2015, 22, 47-53.	0.1	1
81	Correlation between incubation time for edge drift and Pb migration in electromigration of eutectic SnPb lines. , 0, , .		0
82	Effect of electromigration temperature on dominant migration and hillock phases of eutectic SnPb alloys. , 2006, , .		0
83	In-situ Study on the Effects of Temperature and Size on the Electromigration Characteristics of Eutectic SnPb and Pb-free Solder Alloys. , 2006, , .		0
84	In-situ Study on Effects of Annealing Temperature and Mo Interlayer on Stress Relaxation Behaviors of Pure Al Films on Glass Substrates. Materials Research Society Symposia Proceedings, 2006, 924, 1.	0.1	0
85	Effects of annealing and electromigration on intermetallic compound formation of Cu pillar bump. , 2007, , .		0
86	Reliability of Cu pillar bump for flip chip and 3-D SiP. , 2008, , .		0
87	Current stressing effects on the reliability of Cu pillar bump with shallow solder. , 2010, , .		0
88	Interfacial microstructure and mechanical reliability of Cu pillar/Sn-3.5Ag bump for 3D packages. , 2011, , .		0
89	Comparisons of mechanical reliabilities of Sn-3.0Ag-0.5Cu solder between ENIG and immersion Sn pad finishes. , 2011, , .		0
90	Current stressing effects on interfacial reaction characteristics of fine-pitch microbump. , 2012, , .		0

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91	Effects of surface finish conditions on interfacial reaction characteristics and mechanical reliability of novel Sn-1.2Ag-0.7Cu-0.4In solder bump. , 2012, , .		0
92	Current stressing effect on interfacial reaction characteristics of Cu pillar/Sn-3.5Ag microbumps for 3D integration. , 2012, , .		0
93	Comparisons of the electrical and mechanical reliabilities between Sn-3.5Ag and Sn-0.7Cu Pb-free solder bumps. , 2012, , .		0
94	Effects of various environmental conditions on the electrical properties and interfacial reliability of printed Ag / polyimide system. , 2014, , .		0
95	Effect of Dielectric Process on the Interfacial Adhesion of RDL for FOWLP. , 2020, , .		0
96	Effect of BOE Wet Etching on Interfacial Characteristics of Cu-Cu Pattern Direct Bonds for 3D-IC Integrations. Journal of Welding and Joining, 2012, 30, 26-31.	1.3	0
97	Effect of Solder Structure on the In-situ Intermetallic Compounds growth Characteristics of Cu/Sn-3.5Ag Microbump. Journal of the Microelectronics and Packaging Society, 2013, 20, 45-51.	0.1	0
98	Effect of Temperature/Humidity Treatment on Interfacial Reliability on Screen-Printed Ag / Polyimide for Advanced Embedded Packaging Technologies. International Symposium on Microelectronics, 2016, 2016, 000545-000550.	0.0	0