Young-Bae Park

List of Publications by Year
in descending order

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98 papers	1,019 citations	430874 18 h-index	501196 28 g-index
98 all docs	98 docs citations	98 times ranked	613 citing authors

#	Article	IF	Citations
1	Size Effect on the Electromigration Characteristics of Flip Chip Pb-free Solder Bumps. Electronic Materials Letters, 2022, 18, 431-439.	2.2	6
2	A study on the interfacial adhesion energy between capping layer and dielectric for cu interconnects. Microelectronics Reliability, 2021, 116, 114020.	1.7	1
3	Degradation Mechanism of Interfacial Adhesion between Screen-Printed Ag/Polyimide in Temperature/Humidity Environment. Electronic Materials Letters, 2021, 17, 157-163.	2.2	4
4	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
5	Properties of nanocrystalline CuAg foil prepared via electrodeposition. Journal of Alloys and Compounds, 2021, 881, 160522.	5.5	6
6	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
7	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
8	Effect of Dielectric Process on the Interfacial Adhesion of RDL for FOWLP. , 2020, , .		0
9	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
10	Effects of two-step plasma treatment on Cu and SiO₂ surfaces for 3D bonding applications. , 2020, , .		7
11	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
12	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
13	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
14	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
15	Electrical Reliability and Bending Test Methodologies of Metal Electrode on Flexible Substrate. Journal of Nanoscience and Nanotechnology, 2020, 20, 470-477.	0.9	3
16	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
17	Effects of Dielectric Curing Conditions on the Interfacial Adhesion of Cu RDL for Fan-Out Wafer Level Packaging. , 2019, , .		1
18	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

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19	Ni Barrier Symmetry Effect on Electromigration Failure Mechanism of Cu/Snâ€“Ag Microbump. Electronic Materials Letters, 2019, 15, 149-158.	2.2	14
20	Electromigration polarity effect of Cu/Ni/Sn-Ag microbumps for three-dimensional integrated circuits. , 2017, , .		3
21	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
22	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
23	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
24	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
25	Effects of various environmental conditions on the electrical properties and interfacial reliability of printed Ag / polyimide system. , 2014, , .		0
26	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
27	Structure effects on the electrical reliability of fine-pitch Cu micro-bumps for 3D integration. , 2014, , .		2
28	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
29	Coupled self-assembled monolayer for enhancement of Cu diffusion barrier and adhesion properties. RSC Advances, 2014, 4, 60123-60130.	3.6	22
30	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
31	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
32	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
33	Solder joint properties of Sn-Ag-Cu solders on environmental-friendly plasma surface finish. , 2013, , .		1
34	Current density effects on the electrical reliability of ultra fine-pitch micro-bump for TSV integration. , 2013, , .		4
35	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
36	Current stressing effects on interfacial reaction characteristics of fine-pitch microbump. , 2012, , .		0

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37	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
38	Current stressing effect on interfacial reaction characteristics of Cu pillar/Sn-3.5Ag microbumps for 3D integration. , 2012, , .		0
39	Comparisons of the electrical and mechanical reliabilities between Sn-3.5Ag and Sn-0.7Cu Pb-free solder bumps. , 2012, , .		0
40	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
41	Correlations between interfacial reactions and bonding strengths of Cu/Sn/Cu pillar bump. Microelectronic Engineering, 2012, 89, 65-69.	2.4	27
42	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
43	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
44	Effect of HF & H2SO4 pretreatment on interfacial adhesion energy of Cuâ€“Cu direct bonds. Microelectronic Engineering, 2012, 89, 42-45.	2.4	15
45	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
46	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
47	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
48	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
49	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
50	Interfacial microstructure and mechanical reliability of Cu pillar/Sn-3.5Ag bump for 3D packages. , 2011, , .		0
51	The effect of plasma pre-cleaning on the Cu-Cu direct bonding for 3D chip stacking.. , 2011, , .		7
52	Microstructural evidence of the chemical driving force in eutectic SnPb electromigration. Current Applied Physics, 2011, 11, S115-S118.	2.4	1
53	Interfacial reaction kinetics in Au stud/Sn bumps during annealing and current stressing. Current Applied Physics, 2011, 11, S124-S127.	2.4	5
54	Annealing temperature effect on the Cu-Cu bonding energy for 3D-IC integration. Metals and Materials International, 2011, 17, 105-109.	3.4	34

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55	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
56	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
57	Comparisons of mechanical reliabilities of Sn-3.0Ag-0.5Cu solder between ENIG and immersion Sn pad finishes. , 2011, , .		0
58	Intermetallic Compound Growth and Reliability of Cu Pillar Bumps Under Current Stressing. Journal of Electronic Materials, 2010, 39, 2281-2285.	2.2	49
59	Interfacial Reaction Effect on Electrical Reliability of Cu Pillar/Sn Bumps. Journal of Electronic Materials, 2010, 39, 2368-2374.	2.2	20
60	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
61	Current stressing effects on the reliability of Cu pillar bump with shallow solder. , 2010, , .		0
62	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
63	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
64	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
65	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
66	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
67	Temperature Effect on Intermetallic Compound Growth Kinetics of Cu Pillar/Sn Bumps. Journal of Electronic Materials, 2009, 38, 2228-2233.	2.2	70
68	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
69	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
70	Microstructure evolution in Cu pillar/eutectic SnPb solder system during isothermal annealing. Metals and Materials International, 2009, 15, 815-818.	3.4	12
71	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
72	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

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73	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
74	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
75	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
76	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
77	Intermetallic compound and Kirkendall void growth in Cu pillar bump during annealing and current stressing. , 2008, , .		7
78	Reliability of Cu pillar bump for flip chip and 3-D SiP. , 2008, , .		0
79	Size effect on electromigration reliability of pb-free flip chip solder bump. , 2008, , .		4
80	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
81	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
82	Effects of annealing and electromigration on intermetallic compound formation of Cu pillar bump. , 2007, , .		0
83	Frequency effect on thermal fatigue damage in Cu interconnects. Thin Solid Films, 2007, 515, 3253-3258.	1.8	25
84	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
85	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
86	Line Length Effect on Electromigration Characteristics of Eutectic SnPb Solder. Korean Journal of Materials Research, 2007, 17, 371-375.	0.2	1
87	Effect of electromigration temperature on dominant migration and hillock phases of eutectic SnPb alloys. , 2006, , .		0
88	Electrochemical migration characteristics of eutectic SnPb solder alloy in printed circuit board. Thin Solid Films, 2006, 504, 294-297.	1.8	60
89	Thermal fatigue as a possible failure mechanism in copper interconnects. Thin Solid Films, 2006, 504, 321-324.	1.8	27
90	In-situ Study on the Effects of Temperature and Size on the Electromigration Characteristics of Eutectic SnPb and Pb-free Solder Alloys. , 2006, , .		0

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91	Relationship between edge drift and atomic migration during electromigration of eutectic SnPb lines. Journal of Applied Physics, 2006, 100, 033715.	2.5	16
92	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
93	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
94	Analysis of the reservoir effect on electromigration reliability. Microelectronics Reliability, 2004, 44, 917-928.	1.7	21
95	Effects of mechanical stress at no current stressed area on electromigration reliability of multilevel interconnects. Microelectronic Engineering, 2004, 71, 76-89.	2.4	10
96	Mechanical stress evolution in metal interconnects for various line aspect ratios and passivation dielectrics. Microelectronic Engineering, 2003, 69, 26-36.	2.4	21
97	Correlation between incubation time for edge drift and Pb migration in electromigration of eutectic SnPb lines. , 0, , .		0
98	Dominant Migration Element in Electrochemical Migration of Eutectic SnPb Solder Alloy. , 0, , .		2