Fan-Yi Ouyang

List of Publications by Year
in descending order

44	912	430874	454955
papers	citations	18 h-index	30 g-index

45	45	45	494
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Effect of moisture on corrosion of Ni-based alloys in molten alkali fluoride FLiNaK salt environments. Journal of Nuclear Materials, 2013, 437, 201-207.	2.7	115
2	Long-term corrosion behaviors of Hastelloy-N and Hastelloy-B3 in moisture-containing molten FLiNaK salt environments. Journal of Nuclear Materials, 2014, 446, 81-89.	2.7	99
3	Effect of entropy production on microstructure change in eutectic SnPb flip chip solder joints by thermomigration. Applied Physics Letters, 2006, 89, 221906.	3.3	59
4	In situ observation of thermomigration of Sn atoms to the hot end of 96.5Sn-3Ag-0.5Cu flip chip solder joints. Journal of Applied Physics, 2011, 110, .	2.5	52
5	Effects of anisotropic Î²-Sn alloys on Cu diffusion under a temperature gradient. Acta Materialia, 2014, 81, 141-150.	7.9	49
6	Effect of current crowding on whisker growth at the anode in flip chip solder joints. Applied Physics Letters, 2007, 91, 231919.	3.3	48
7	Thermal-gradient induced abnormal Ni3Sn4 interfacial growth at cold side in Sn2.5Ag alloys for three-dimensional integrated circuits. Journal of Alloys and Compounds, 2013, 580, 114-119.	5.5	46
8	Interfacial reaction of Ni3Sn4 intermetallic compound in Ni/SnAg solder/Ni system under thermomigration. Journal of Alloys and Compounds, 2016, 674, 331-340.	5.5	33
9	Electromigration induced failure on lead-free micro bumps in three-dimensional integrated circuits packaging. Journal of Applied Physics, 2012, 112, .	2.5	31
10	Growth kinetic of Ag3Sn intermetallic compound in micro-scale Pb-free solder alloys under a temperature gradient. Journal of Alloys and Compounds, 2016, 655, 155-164.	5.5	28
11	Effect of Sn grain orientation on growth of Cu-Sn intermetallic compounds during thermomigration in Cu-Sn2.3Ag-Ni microbumps. Materials Letters, 2019, 236, 190-193.	2.6	26
12	Comparison of thermomigration behaviors between Pb-free flip chip solder joints and microbumps in three dimensional integrated circuits: Bump height effect. Journal of Applied Physics, 2013, 113, .	2.5	24
13	Effect of electromigration in the anodic Al interconnect on melting of flip chip solder joints. Applied Physics Letters, 2007, 90, 211914.	3.3	23
14	Effect of substrate bias on the microstructure and properties of (AlCrSiNbZr)Nx high entropy nitride thin film. Surface and Coatings Technology, 2020, 393, 125796.	4.8	22
15	Asymmetrical Precipitation of Ag3Sn Intermetallic Compounds Induced by Thermomigration of Ag in Pb-Free Microbumps During Solid-State Aging. Journal of Electronic Materials, 2016, 45, 30-37.	2.2	21
16	Electromigration Behavior of Screen-Printing Silver Nanoparticles Interconnects. Jom, 2019, 71, 3084-3093.	1.9	20
17	Low temperature Ag-Ag direct bonding under air atmosphere. Journal of Alloys and Compounds, 2021, 862, 158587.	5.5	20
18	Effect of Ag3Sn: Effective suppression of thermomigration-induced Cu dissolution in micro-scale Pb-free interconnects. Materials Chemistry and Physics, 2015, 165, 66-71.	4.0	19

#	Article	IF	Citations
19	Effect of electromigration induced joule heating and strain on microstructural recrystallization in eutectic SnPb flip chip solder joints. Materials Chemistry and Physics, 2012, 136, 210-218.	4.0	18
20	Electrochemical Migration of Fine-Pitch Nanopaste Ag Interconnects. Journal of Electronic Materials, 2016, 45, 6123-6129.	2.2	14
21	Thermomigration in Co/SnAg/Co and Cu/SnAg/Co sandwich structure. Microelectronics Reliability, 2019, 97, 16-23.	1.7	14
22	Direct metal bonding using nanotwinned Ag films with (1 1 1) surface orientation under air atmosphere for heterogeneous integration. Applied Surface Science, 2022, 576, 151845.	6.1	14
23	High temperature oxidation behavior of high entropy alloy Al4Co3Cr25Cu10Fe25Ni33 in oxygen-containing atmospheres. Materials Chemistry and Physics, 2022, 278, 125678.	4.0	14
24	Nanotwinned medium entropy alloy CoCrFeNi thin films with ultra-high hardness: Modifying residual stress without scarifying hardness through tuning substrate bias. Surface and Coatings Technology, 2022, 434, 128191.	4.8	13
25	Evaluation of Electromigration Behaviors of Pb-Free Microbumps in Three-Dimensional Integrated Circuit Packaging. Journal of Electronic Materials, 2014, 43, 236-246.	2.2	11
26	Corrosion behavior of pre-oxidized HR-224 superalloy in supercritical water environment at 700â€Â°C. Journal of Nuclear Materials, 2018, 505, 7-14.	2.7	11
27	Improvement of thermomigration resistance in lead-free Sn3.5Ag alloys by Ag interlayer. Journal of Alloys and Compounds, 2020, 847, 156429.	5.5	11
28	Improvement of Ag films with highly (111) surface orientation for metal direct bonding technique: Nanotwinned structure and ion bombardment effect. Materials Chemistry and Physics, 2021, 274, 125159.	4.0	9
29	Effect of film thickness and Ti interlayer on structure and properties of Nanotwinned Cu thin films. Surface and Coatings Technology, 2018, 350, 848-856.	4.8	7
30	Oxidation behavior of Al-Cr-Nb-Si-Zr high entropy nitride thin films at 850â€Â°C. Corrosion Science, 2021, 187, 109467.	6.6	7
31	Joule-Heating-Induced Damage in Cu-Al Wedge Bonds Under Current Stressing. Journal of Electronic Materials, 2014, 43, 270-276.	2.2	6
32	Electromigration induced spontaneous Ag whisker growth in fine Ag-alloy bonding interconnects: Novel polarity effect. Materials Letters, 2016, 182, 55-58.	2.6	6
33	Effect of temperature on microstructural evolution of solder alloys under thermomigration. Journal of Applied Physics, 2019, 125, .	2.5	6
34	Electrochemical migration of nano-sized Ag interconnects under deionized water and Clâ¯-containing electrolyte. Journal of Materials Science: Materials in Electronics, 2018, 29, 18331-18342.	2.2	5
35	Low Temperature Metal-to-Metal Direct Bonding in Atmosphere using highly (111) Oriented Nanotwinned Silver Interconnects. , 2022, , .		3
36	Ag alloy wire bonding under electromigration test. , 2015, , .		2

#	Article	IF	Citations
37	Failure mechanism of Ag-4Pd alloy wire bonded on Al-Si metallization under high temperature storage and thermal cycle tests in corrosive environments. Materials Chemistry and Physics, 2018, 218, 147-153.	4.0	2
38	Interfacial Solidâ€“Liquid Reaction of Ni/In/Ni Structure During Isothermal Reflow Process. Journal of Electronic Materials, 2021, 50, 6575-6583.	2.2	2
39	Electromigration and thermomigration of Pb-free microbumps in three-dimensional integrated circuits packaging. , 2014, , .		1
40	Enhanced Electromigration Resistance of Pb-Free Solders by Using Cu/Sn Composite Structure. Jom, 2014, 66, 2334-2339.	1.9	1
41	The growth of Ag<inf>3</inf>Sn intermetallic compound under a temperature gradient. , 2014, , .		0
42	Effect of Sn orientation on Cu diffusion for Pb-free solders under a temperature gradient. , 2015, , .		0
43	Nanotwinned Cu thin film with different twin boundary orientations deposited by unbalanced magnetron sputtering. , 2015, , .		0
44	Low temperature direct bonding of nanotwinned Ag thin films. , 2019, , .		0