Fuliang Wang

List of Publications by Year in descending order

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69	645	567281 15	713466 21
papers	citations	h-index	g-index

69	69	69	358
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Long distance and direction-controllable conveyor for automatic particle transportation based on optical tweezers. Sensors and Actuators A: Physical, 2022, 333, 113223.	4.1	4
2	Fabrication of micro-sized-copper column array through localized electrochemical deposition using 20-Î¼m-diameter micro-anode. Journal of Solid State Electrochemistry, 2022, 26, 799-808.	2.5	4
3	Thermo-compression bonding process characteristics and shape control of Cu-pillar microbump joints by optimizing of solder melting. Journal of Materials Science: Materials in Electronics, 2022, 33, 10471-10485.	2.2	5
4	An ultrasensitive bacteria biosensor using â€œmultilayer cakeâ€•silver microelectrode based on local high electric field effect. Applied Physics Letters, 2022, 121, 013701.	3.3	3
5	Using a triblock copolymer as a single additive in high aspect ratio through silicon via (TSV) copper filling. Microelectronic Engineering, 2021, 244-246, 111554.	2.4	4
6	Experiment and simulation of single inhibitor SH110 for void-free TSV copper filling. Scientific Reports, 2021, 11, 12108.	3.3	11
7	Effects of polyethyleneimine, applied potential and the initial gap on the localized electrochemical deposition of silver microcolumns. Microelectronic Engineering, 2021, 247, 111582.	2.4	3
8	The Shape Control Process of a Cu/SnAg Solder Joint with a Ni insertion Using Thermo-Compression Bonding. , 2021, , .		0
9	Electroless Copper Deposition with Pyramidal Micro-cones Morphology for Low-temperature Cu-Cu Bump Interconnections. , 2021, , .		0
10	Void Free TSV Copper Filling using Single Additive 3-(1-Pyridinio)-1-Propanesulfonate (PPS). , 2020, , .		2
11	Filling technique of through silicon via by co-depositing copper and SiC nano-particles. , 2020, , .		0
12	Effect of sulfuric acid concentration on the quality of copper microcolumns in localized electrochemical deposition. Materials Research Express, 2020, 7, 056515.	1.6	1
13	Interaction effect of suppressor concentration and current density on the copper deposition rate in TSV filling process. Microelectronic Engineering, 2019, 216, 111022.	2.4	6
14	Effect of aliphatic-amine ethoxy sulfonates (AESS) on micro copper columns fabrication by using localized electrochemical deposition. Materials Research Express, 2019, 6, 0965b3.	1.6	2
15	Experimental study of current density in copper filling process within deep through-silicon vias with high aspect ratio. Journal of Micromechanics and Microengineering, 2019, 29, 125013.	2.6	5
16	Effect of cetyl-trimethyl-ammonium-bromide (CTAB) and bis (3-sulfopropyl) disulfide (SPS) on the through-silicon-via (TSV) copper filling. Microelectronic Engineering, 2019, 217, 111109.	2.4	11
17	Study on the effect of CNT on the improved mechanical performance of flexible Ag NPs/CNT based electronics. AIP Advances, 2019, 9, .	1.3	3
18	Effect of molecular weight and concentration of polyethylene glycol on throughâ€‘silicon via filling by copper. Microelectronic Engineering, 2019, 215, 111003.	2.4	15

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19	Graphene/Glycerin Solution-Based Multifunctional Stretchable Strain Sensor with Ultra-High Stretchability, Stability, and Sensitivity. Nanomaterials, 2019, 9, 617.	4.1	15
20	Fabrication of Micro-Sized Copper Columns Using Localized Electrochemical Deposition with a 20ÂÎ¼m Diameter Micro Anode. ECS Journal of Solid State Science and Technology, 2019, 8, P223-P227.	1.8	10
21	Study of Complex Looping With Five Kinks in Thermosonic Wire Bonding by Using Variable-Length Link-Spring Model. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2019, 9, 375-379.	2.5	4
22	The key role of suppressor diffusion in defect-free filling of the through-silicon-via with high depth. Journal of Micromechanics and Microengineering, 2019, 29, 055005.	2.6	11
23	Stress-dislocation interaction mechanism in low-temperature thermo-compression sintering of Ag NPs. AIP Advances, 2018, 8, .	1.3	9
24	Parameters determination for modelling of copper electrodeposition in through-silicon-via with additives. Microelectronic Engineering, 2018, 196, 25-31.	2.4	5
25	Mathematical simulation and experimental verification for through silicon via with additives. , 2018, , .		0
26	Effects of additives with different acids on the through-silicon vias copper filling. Microelectronic Engineering, 2018, 200, 51-55.	2.4	6
27	Co-deposition of Nano-Size SiC Particles in Micro-Via. , 2018, , .		0
28	Effect of ultrasound agitation on the properties of copper electrodeposition in micro-via. , 2018, , .		1
29	Numerical modeling and experimental verification of copper electrodeposition for through silicon via (TSV) with additives. Microelectronic Engineering, 2017, 170, 54-58.	2.4	27
30	Effect of Ultrasound on Copper Filling of High Aspect Ratio Through-Silicon Via (TSV). Journal of the Electrochemical Society, 2017, 164, D126-D129.	2.9	31
31	Effect of Bis-(3-sulfopropyl) Disulfide and Chloride Ions on the Localized Electrochemical Deposition of Copper Microstructures. Journal of the Electrochemical Society, 2017, 164, D419-D424.	2.9	9
32	Dynamic through-silicon-via filling process using copper electrochemical deposition at different current densities. Scientific Reports, 2017, 7, 46639.	3.3	21
33	Effect of Voltage and Gap on Micro-Nickel-Column Growth Patterns in Localized Electrochemical Deposition. Journal of the Electrochemical Society, 2017, 164, D297-D301.	2.9	14
34	Dynamics of filling process of through silicon via under the ultrasonic agitation on the electroplating solution. Microelectronic Engineering, 2017, 180, 25-29.	2.4	14
35	High-speed and high-quality TSV filling with the direct ultrasonic agitation for copper electrodeposition. Microelectronic Engineering, 2017, 180, 30-34.	2.4	27
36	Fabrication of Micro Copper Walls by Localized Electrochemical Deposition through the Layer by Layer Movement of a Micro Anode. Journal of the Electrochemical Society, 2017, 164, D758-D763.	2.9	12

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37	Parameter analysis on the ultrasonic TSV-filling process and electrochemical characters. Journal of Micromechanics and Microengineering, 2017, 27, 105003.	2.6	6
38	Ultrasonic-Assisted Sintering of Silver Nanoparticles for Flexible Electronics. Journal of Physical Chemistry C, 2017, 121, 28515-28519.	3.1	20
39	A novel model for through-silicon via (TSV) filling process simulation considering three additives and current density effect. Journal of Micromechanics and Microengineering, 2017, 27, 125017.	2.6	3
40	Growth pattern and morphology of micro nickel column by localized electrochemical deposition. , 2016, , .		1
41	Dispensing of high concentration Ag nano-particles ink for ultra-low resistivity paper-based writing electronics. Scientific Reports, 2016, 6, 21398.	3.3	43
42	Parametric Electrochemical Deposition of Controllable Morphology of Copper Micro-Columns. Journal of the Electrochemical Society, 2016, 163, E322-E327.	2.9	18
43	Effects of applied potential and the initial gap between electrodes on localized electrochemical deposition of micrometer copper columns. Scientific Reports, 2016, 6, 26270.	3.3	20
44	Localized electrochemical deposition of micrometer copper columns as affected by adding sulfuric acid. , 2016, , .		1
45	Parameters Analysis of TSV Filling Models of Distinct Chemical Behaviours of Additives. Electrochimica Acta, 2016, 221, 70-79.	5.2	30
46	Effect of voltage and gap on the morphology of the Ni micro-column by localized electrochemical deposition. , 2016, , .		0
47	Ultrasound aided smooth dispensing for high viscoelastic epoxy in microelectronic packaging. Ultrasonics Sonochemistry, 2016, 28, 15-20.	8.2	15
48	Comparison of Fundamental Frequency and Sweep Resistance of Different Wire Loops Using Finite Element Model. International Journal of Structural Stability and Dynamics, 2015, 15, 1450032.	2.4	3
49	Development of an Ultralong Ultralow n-Loop for Wire Bonding. IEEE Transactions on Semiconductor Manufacturing, 2015, 28, 50-54.	1.7	3
50	High-Frequency and Low-Temperature Thermosonic Bonding of Lead-Free Microsolder Ball on Silver Pad Without Flux. Journal of Electronic Packaging, Transactions of the ASME, 2014, 136, .	1.8	3
51	Investigation of Complex Looping Process for Thermosonic Wire Bonding. IEEE Transactions on Semiconductor Manufacturing, 2014, 27, 238-245.	1.7	1
52	Modeling and Experimental Study of the Kink Formation Process in Wire Bonding. IEEE Transactions on Semiconductor Manufacturing, 2014, 27, 51-59.	1.7	17
53	Modeling of Deep Cavity Looping Process on 3-D Stacked Die Package. IEEE Transactions on Semiconductor Manufacturing, 2013, 26, 169-175.	1.7	6
54	Ultrasonic Effects in the Thermosonic Flip Chip Bonding Process. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2013, 3, 336-341.	2.5	15

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55	Experimental Study of Thermosonic Gold Bump Flip-Chip Bonding With a Smooth End Tool. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2013, 3, 930-934.	2.5	14
56	Experimental and Modeling Studies of Looping Process for Wire Bonding. Journal of Electronic Packaging, Transactions of the ASME, 2013, 135, .	1.8	6
57	Variable-Length Link-Spring Model for Kink Formation During Wire Bonding. Journal of Electronic Packaging, Transactions of the ASME, 2013, 135, .	1.8	2
58	Finite element analysis of wire clamp for wire bonding. , 2012, , .		2
59	Dynamics of Free Air Ball Formation in Thermosonic Wire Bonding. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2012, 2, 1389-1393.	2.5	12
60	Effect of Capillary Trace on Dynamic Loop Profile Evolution in Thermosonic Wire Bonding. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2012, 2, 1550-1557.	2.5	15
61	Height Measurement of Micro-Solder Balls on Metal Pad by White Light Projection. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2012, 2, 1545-1549.	2.5	6
62	Experiment study of dynamic looping process for thermosonic wire bonding. Microelectronics Reliability, 2012, 52, 1105-1111.	1.7	16
63	Ultrasonic Vibration at Thermosonic Flip-Chip Bonding Interface. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2011, 1, 852-858.	2.5	29
64	Dynamic current characteristic of ultrasonic transducer for wire bonding. , 2010, , .		1
65	Stress-induced atom diffusion at thermosonic flip chip bonding interface. Sensors and Actuators A: Physical, 2009, 149, 100-105.	4.1	28
66	Atom diffusion mechanism of thermo-sonic flip chip bonding interface. , 2007, , .		2
67	Design of Ultrasonic Generator Based on DDS and PLL Technology. , 2007, , .		7
68	Study on the Chip and Tool Tip Vibration of Thermosonic Flip Chip Bonding. , 2007, , .		0
69	The Design and Realization of Machine Vision System in Flip - chip Bonder. , 2006, , .		5