# Fuliang Wang

List of Publications by Year
in descending order

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| 69 | 645 | 15 | 21 |
| --- | --- | --- | --- |
| papers | citations | h-index | g-index |

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

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Dispensing of high concentration Ag nano-particles ink for ultra-low resistivity paper-based writing electronics. Scientific Reports, 2016, 6, 21398. | 3.3 | 43 |
| 2 | 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 |
| 3 | Parameters Analysis of TSV Filling Models of Distinct Chemical Behaviours of Additives. Electrochimica Acta, 2016, 221, 70-79. | 5.2 | 30 |
| 4 | Ultrasonic Vibration at Thermosonic Flip-Chip Bonding Interface. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2011, 1, 852-858. | 2.5 | 29 |
| 5 | Stress-induced atom diffusion at thermosonic flip chip bonding interface. Sensors and Actuators A: Physical, 2009, 149, 100-105. | 4.1 | 28 |
| 6 | Numerical modeling and experimental verification of copper electrodeposition for through silicon via (TSV) with additives. Microelectronic Engineering, 2017, 170, 54-58. | 2.4 | 27 |
| 7 | High-speed and high-quality TSV filling with the direct ultrasonic agitation for copper electrodeposition. Microelectronic Engineering, 2017, 180, 30-34. | 2.4 | 27 |
| 8 | Dynamic through-silicon-via filling process using copper electrochemical deposition at different current densities. Scientific Reports, 2017, 7, 46639. | 3.3 | 21 |
| 9 | 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 |
| 10 | Ultrasonic-Assisted Sintering of Silver Nanoparticles for Flexible Electronics. Journal of Physical Chemistry C, 2017, 121, 28515-28519. | 3.1 | 20 |
| 11 | Parametric Electrochemical Deposition of Controllable Morphology of Copper Micro-Columns. Journal of the Electrochemical Society, 2016, 163, E322-E327. | 2.9 | 18 |
| 12 | Modeling and Experimental Study of the Kink Formation Process in Wire Bonding. IEEE Transactions on Semiconductor Manufacturing, 2014, 27, 51-59. | 1.7 | 17 |
| 13 | Experiment study of dynamic looping process for thermosonic wire bonding. Microelectronics Reliability, 2012, 52, 1105-1111. | 1.7 | 16 |
| 14 | 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 |
| 15 | Ultrasonic Effects in the Thermosonic Flip Chip Bonding Process. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2013, 3, 336-341. | 2.5 | 15 |
| 16 | Ultrasound aided smooth dispensing for high viscoelastic epoxy in microelectronic packaging. Ultrasonics Sonochemistry, 2016, 28, 15-20. | 8.2 | 15 |
| 17 | Effect of molecular weight and concentration of polyethylene glycol on throughâ€‘silicon via filling by copper. Microelectronic Engineering, 2019, 215, 111003. | 2.4 | 15 |
| 18 | Graphene/Glycerin Solution-Based Multifunctional Stretchable Strain Sensor with Ultra-High Stretchability, Stability, and Sensitivity. Nanomaterials, 2019, 9, 617. | 4.1 | 15 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | 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 |
| 20 | 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 |
| 21 | 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 |
| 22 | 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 |
| 23 | 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 |
| 24 | 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 |
| 25 | 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 |
| 26 | Experiment and simulation of single inhibitor SH110 for void-free TSV copper filling. Scientific Reports, 2021, 11, 12108. | 3.3 | 11 |
| 27 | Fabrication of Micro-Sized Copper Columns Using Localized Electrochemical Deposition with a 20Î¼m Diameter Micro Anode. ECS Journal of Solid State Science and Technology, 2019, 8, P223-P227. | 1.8 | 10 |
| 28 | 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 |
| 29 | Stress-dislocation interaction mechanism in low-temperature thermo-compression sintering of Ag NPs. AIP Advances, 2018, 8, . | 1.3 | 9 |
| 30 | Design of Ultrasonic Generator Based on DDS and PLL Technology. , 2007, , . | | 7 |
| 31 | 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 |
| 32 | Modeling of Deep Cavity Looping Process on 3-D Stacked Die Package. IEEE Transactions on Semiconductor Manufacturing, 2013, 26, 169-175. | 1.7 | 6 |
| 33 | Experimental and Modeling Studies of Looping Process for Wire Bonding. Journal of Electronic Packaging, Transactions of the ASME, 2013, 135, . | 1.8 | 6 |
| 34 | Parameter analysis on the ultrasonic TSV-filling process and electrochemical characters. Journal of Micromechanics and Microengineering, 2017, 27, 105003. | 2.6 | 6 |
| 35 | Effects of additives with different acids on the through-silicon vias copper filling. Microelectronic Engineering, 2018, 200, 51-55. | 2.4 | 6 |
| 36 | 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 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | The Design and Realization of Machine Vision System in Flip - chip Bonder. , 2006, , . | | 5 |
| 38 | Parameters determination for modelling of copper electrodeposition in through-silicon-via with additives. Microelectronic Engineering, 2018, 196, 25-31. | 2.4 | 5 |
| 39 | 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 |
| 40 | 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 |
| 41 | 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 |
| 42 | 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 |
| 43 | 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 |
| 44 | 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 |
| 45 | 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 |
| 46 | 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 |
| 47 | Development of an Ultralong Ultralow n-Loop for Wire Bonding. IEEE Transactions on Semiconductor Manufacturing, 2015, 28, 50-54. | 1.7 | 3 |
| 48 | 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 |
| 49 | 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 |
| 50 | 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 |
| 51 | 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 |
| 52 | Atom diffusion mechanism of thermo-sonic flip chip bonding interface. , 2007, , . | | 2 |
| 53 | Finite element analysis of wire clamp for wire bonding. , 2012, , . | | 2 |
| 54 | Variable-Length Link-Spring Model for Kink Formation During Wire Bonding. Journal of Electronic Packaging, Transactions of the ASME, 2013, 135, . | 1.8 | 2 |

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|---|---|---|---|
| 55 | 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 |
| 56 | Void Free TSV Copper Filling using Single Additive 3-(1-Pyridinio)-1-Propanesulfonate (PPS). , 2020, , . | | 2 |
| 57 | Dynamic current characteristic of ultrasonic transducer for wire bonding. , 2010, , . | | 1 |
| 58 | Investigation of Complex Looping Process for Thermosonic Wire Bonding. IEEE Transactions on Semiconductor Manufacturing, 2014, 27, 238-245. | 1.7 | 1 |
| 59 | Growth pattern and morphology of micro nickel column by localized electrochemical deposition. , 2016, , . | | 1 |
| 60 | Localized electrochemical deposition of micrometer copper columns as affected by adding sulfuric acid. , 2016, , . | | 1 |
| 61 | Effect of ultrasound agitation on the properties of copper electrodeposition in micro-via. , 2018, , . | | 1 |
| 62 | Effect of sulfuric acid concentration on the quality of copper microcolumns in localized electrochemical deposition. Materials Research Express, 2020, 7, 056515. | 1.6 | 1 |
| 63 | Study on the Chip and Tool Tip Vibration of Thermosonic Flip Chip Bonding. , 2007, , . | | 0 |
| 64 | Effect of voltage and gap on the morphology of the Ni micro-column by localized electrochemical deposition. , 2016, , . | | 0 |
| 65 | Mathematical simulation and experimental verification for through silicon via with additives. , 2018, , . | | 0 |
| 66 | Co-deposition of Nano-Size SiC Particles in Micro-Via. , 2018, , . | | 0 |
| 67 | Filling technique of through silicon via by co-depositing copper and SiC nano-particles. , 2020, , . | | 0 |
| 68 | The Shape Control Process of a Cu/SnAg Solder Joint with a Ni insertion Using Thermo-Compression Bonding. , 2021, , . | | 0 |
| 69 | Electroless Copper Deposition with Pyramidal Micro-cones Morphology for Low-temperature Cu-Cu Bump Interconnections. , 2021, , . | | 0 |