

# Su Ding

## List of Publications by Citations

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101  
papers

1,247  
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19  
h-index

31  
g-index

149  
ext. papers

1,670  
ext. citations

5  
avg, IF

4.9  
L-index

#	Paper	IF	Citations
101	One-Step Fabrication of Stretchable Copper Nanowire Conductors by a Fast Photonic Sintering Technique and Its Application in Wearable Devices. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 6190-6195	9.5	117
100	Facile fabrication of stretchable Ag nanowire/polyurethane electrodes using high intensity pulsed light. <i>Nano Research</i> , <b>2016</b> , 9, 401-414	10	113
99	Highly Stretchable Metallic Nanowire Networks Reinforced by the Underlying Randomly Distributed Elastic Polymer Nanofibers via Interfacial Adhesion Improvement. <i>Advanced Materials</i> , <b>2019</b> , 31, e1903446	24	56
98	Fast fabrication of copper nanowire transparent electrodes by a high intensity pulsed light sintering technique in air. <i>Physical Chemistry Chemical Physics</i> , <b>2015</b> , 17, 31110-6	3.6	47
97	Phase transformation and grain orientation of Cu <sub>3</sub> Sn intermetallic compounds during low temperature bonding process. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2013</b> , 24, 3905-3913	2.1	42
96	Mechanisms for low-temperature direct bonding of Si/Si and quartz/quartz VUV/O activation.. <i>RSC Advances</i> , <b>2018</b> , 8, 11528-11535	3.7	33
95	Sintering mechanism of the Cu/Ag core-shell nanoparticle paste at low temperature in ambient air. <i>RSC Advances</i> , <b>2016</b> , 6, 91783-91790	3.7	31
94	Atypical Defect-Mediated Photoluminescence and Resonance Raman Spectroscopy of Monolayer WS <sub>2</sub> . <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 3900-3907	3.8	24
93	Highly stable flexible transparent electrode via rapid electrodeposition coating of Ag-Au alloy on copper nanowires for bifunctional electrochromic and supercapacitor device. <i>Chemical Engineering Journal</i> , <b>2020</b> , 399, 125075	14.7	24
92	Fabrication of high performance printed flexible conductors by doping of polyaniline nanomaterials into silver paste. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 1188-1197	7.1	23
91	Synthesis of polypyrrole nanoparticles and their applications in electrically conductive adhesives for improving conductivity. <i>RSC Advances</i> , <b>2017</b> , 7, 53219-53225	3.7	23
90	Room-temperature direct bonding of silicon and quartz glass wafers. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 221602	3.4	22
89	Determination of the Elastic Properties of Cu <sub>3</sub> Sn Through First-Principles Calculations. <i>Journal of Electronic Materials</i> , <b>2008</b> , 37, 477-482	1.9	22
88	Nanometer-Scale Heterogeneous Interfacial Sapphire Wafer Bonding for Enabling Plasmonic-Enhanced Nanofluidic Mid-Infrared Spectroscopy. <i>ACS Nano</i> , <b>2020</b> , 14, 12159-12172	16.7	22
87	Chemical and thermal robust tri-layer rGO/Ag NWs/GO composite film for wearable heaters. <i>Composites Science and Technology</i> , <b>2019</b> , 174, 76-83	8.6	21
86	Sn <sub>3</sub> OAg <sub>0.5</sub> Cu nanocomposite solders reinforced by graphene nanosheets. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2016</b> , 27, 6809-6815	2.1	21
85	Direct bonding of silicon and quartz glass using VUV/O <sub>3</sub> activation and a multistep low-temperature annealing process. <i>Applied Surface Science</i> , <b>2018</b> , 453, 416-422	6.7	21

84	Cohesively enhanced electrical conductivity and thermal stability of silver nanowire networks by nickel ion bridge joining. <i>Scientific Reports</i> , <b>2018</b> , 8, 5260	4.9	20
83	Electromigration-induced intermetallic growth and voids formation in symmetrical Cu/Sn/Cu and Cu/Intermetallic compounds (IMCs)/Cu joints. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2015</b> , 26, 2674-2681	2.1	19
82	A Solution Processed Flexible Nanocomposite Substrate with Efficient Light Extraction via Periodic Wrinkles for White Organic Light-Emitting Diodes. <i>Advanced Optical Materials</i> , <b>2018</b> , 6, 1801015	8.1	19
81	Direct Homo/Heterogeneous Bonding of Silicon and Glass Using Vacuum Ultraviolet Irradiation in Air. <i>Journal of the Electrochemical Society</i> , <b>2018</b> , 165, H3093-H3098	3.9	18
80	Growth kinetics of CuSn intermetallic compound in Cu-liquid Sn interfacial reaction enhanced by electric current. <i>Scientific Reports</i> , <b>2018</b> , 8, 1775	4.9	18
79	Phase transformation and fracture behavior of Cu/In/Cu joints formed by solid-liquid interdiffusion bonding. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2014</b> , 25, 4170-4178	2.1	18
78	Fabrication of SiC/Si, SiC/SiO <sub>2</sub> , and SiC/glass heterostructures via VUV/O <sub>3</sub> activated direct bonding at low temperature. <i>Ceramics International</i> , <b>2019</b> , 45, 4094-4098	5.1	18
77	Enhanced shear strength of CuSn intermetallic interconnects with interlocking dendrites under fluxless electric current-assisted bonding process. <i>Journal of Materials Science</i> , <b>2017</b> , 52, 1943-1954	4.3	17
76	Electrodeposition fabrication of Cu@Ni core shell nanowire network for highly stable transparent conductive films. <i>Chemical Engineering Journal</i> , <b>2020</b> , 390, 124495	14.7	17
75	Recording the Electrochemical Profile of Pueraria Leaves for Polyphyly Analysis. <i>ChemistrySelect</i> , <b>2020</b> , 5, 5035-5040	1.8	16
74	Effect of intermetallic compounds on fracture behaviors of Sn <sub>3.0</sub> Ag <sub>0.5</sub> Cu lead-free solder joints during in situ tensile test. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2012</b> , 23, 136-147	2.1	16
73	Position-Selective Growth of 2D WS <sub>2</sub> -Based Vertical Heterostructures via a One-Step CVD Approach. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 30519-30527	3.8	16
72	A facile method for direct bonding of single-crystalline SiC to Si, SiO <sub>2</sub> , and glass using VUV irradiation. <i>Applied Surface Science</i> , <b>2019</b> , 471, 196-204	6.7	16
71	TiO <sub>2</sub> -Coated Core-Shell Ag Nanowire Networks for Robust and Washable Flexible Transparent Electrodes. <i>ACS Applied Nano Materials</i> , <b>2019</b> , 2, 2456-2466	5.6	15
70	Facile synthesis of CuAg hybrid nanowires with strong surface-enhanced Raman scattering sensitivity. <i>CrystEngComm</i> , <b>2016</b> , 18, 1200-1206	3.3	15
69	Fabrication of Novel Printable Electrically Conductive Adhesives (ECAs) with Excellent Conductivity and Stability Enhanced by the Addition of Polyaniline Nanoparticles. <i>Nanomaterials</i> , <b>2019</b> , 9,	5.4	15
68	Mechanisms for Room-Temperature Fluorine Containing Plasma Activated Bonding. <i>ECS Journal of Solid State Science and Technology</i> , <b>2017</b> , 6, P373-P378	2	15
67	Recent Progress in Rapid Sintering of Nanosilver for Electronics Applications. <i>Micromachines</i> , <b>2018</b> , 9,	3.3	15

66	Intrinsically Stretchable, Transient Conductors from a Composite Material of Ag Flakes and Gelatin Hydrogel. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 27572-27577	9.5	13
65	Highly conductive and transparent copper nanowire electrodes on surface coated flexible and heat-sensitive substrates.. <i>RSC Advances</i> , <b>2018</b> , 8, 2109-2115	3.7	13
64	High-efficiency extraction synthesis for high-purity copper nanowires and their applications in flexible transparent electrodes. <i>Nano Materials Science</i> , <b>2020</b> , 2, 164-171	10.2	13
63	Growth and optical properties of large-scale MoS <sub>2</sub> films with different thickness. <i>Ceramics International</i> , <b>2019</b> , 45, 15091-15096	5.1	12
62	The fabrication and tunable optical properties of 2D transition metal dichalcogenides heterostructures by adjusting the thickness of Mo/W films. <i>Applied Surface Science</i> , <b>2020</b> , 505, 144192	6.7	12
61	The synthesis and tunable optical properties of two-dimensional alloyed Mo <sub>1-x</sub> W <sub>x</sub> S <sub>2</sub> monolayer with in-plane composition modulations (0001). <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 784, 213-219	5.7	12
60	High-Performance Magnesium-Carbon Nanofiber Hygroelectric Generator Based on Interface-Mediation-Enhanced Capacitive Discharging Effect. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 24289-24297	9.5	11
59	Determination of the Elastic Properties of Au <sub>5</sub> Sn and AuSn from Ab Initio Calculations. <i>Journal of Electronic Materials</i> , <b>2008</b> , 37, 968-974	1.9	10
58	Progress in wafer bonding technology towards MEMS, high-power electronics, optoelectronics, and optofluidics. <i>International Journal of Optomechatronics</i> , <b>2020</b> , 14, 94-118	3.5	10
57	Facile fabrication of highly conductive tracks using long silver nanowires and graphene composite.. <i>RSC Advances</i> , <b>2018</b> , 8, 17739-17746	3.7	10
56	Electrospun nanofibers and spin coated films prepared from side-chain copolymers with chemically bounded platinum (II) porphyrin moieties for oxygen sensing and pressure sensitive paints. <i>Talanta</i> , <b>2018</b> , 188, 124-134	6.2	9
55	One-Step Fabrication of Copper Nanopillar Array-Filled AAO Films by Pulse Electrodeposition for Anisotropic Thermal Conductive Interconnectors. <i>ACS Omega</i> , <b>2019</b> , 4, 6092-6096	3.9	8
54	Joining of Silver Nanowires by Femtosecond Laser Irradiation Method. <i>Materials Transactions</i> , <b>2015</b> , 56, 981-983	1.3	8
53	Recent progress of solution-processed Cu nanowires transparent electrodes and their applications.. <i>RSC Advances</i> , <b>2019</b> , 9, 26961-26980	3.7	7
52	Mechanism of low temperature Cu-In Solid-Liquid Interdiffusion bonding in 3D package <b>2012</b> ,		7
51	Degradation behaviors of micro ball grid array (BGA) solder joints under the coupled effects of electromigration and thermal stress. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2016</b> , 27, 11583-11592	2.1	7
50	Communication Defect-Free Direct Bonding for High-Performance Glass-On-LiNbO <sub>3</sub> Devices. <i>Journal of the Electrochemical Society</i> , <b>2018</b> , 165, B727-B729	3.9	7
49	Optical performance and growth mechanism of a 2D WS <sub>2</sub> /MoS <sub>2</sub> hybrid heterostructure fabricated by a one-step CVD strategy. <i>CrystEngComm</i> , <b>2020</b> , 22, 660-665	3.3	6

48	Easily Synthesized Polyaniline@Cellulose Nanowhiskers Better Tune Network Structures in Ag-Based Adhesives: Examining the Improvements in Conductivity, Stability, and Flexibility. <i>Nanomaterials</i> , <b>2019</b> , 9,	5.4	6
47	Low-Temperature Co-hydroxylated Cu/SiO Hybrid Bonding Strategy for a Memory-Centric Chip Architecture. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 38866-38876	9.5	6
46	Rapid pressureless and low-temperature bonding of large-area power chips by sintering two-step activated Ag paste. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2020</b> , 31, 6497-6505	2.1	5
45	Surface-Tension-Driven Self-Assembly of 3-D Microcomponents by Using Laser Reflow Soldering and Wire Limiting Mechanisms. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2013</b> , 3, 168-176	1.7	5
44	Influence of Interfacial Intermetallic Growth on the Mechanical Properties of Sn-37Pb Solder Joints under Extreme Temperature Thermal Shock. <i>Applied Sciences (Switzerland)</i> , <b>2018</b> , 8, 2056	2.6	5
43	Robust Cu-Au alloy nanowires flexible transparent electrode for asymmetric electrochromic energy storage device. <i>Chemical Engineering Journal</i> , <b>2021</b> , 426, 131438	14.7	5
42	VUV/O <sub>3</sub> activated direct heterogeneous bonding towards high-performance LiNbO <sub>3</sub> -based optical devices. <i>Applied Surface Science</i> , <b>2019</b> , 495, 143576	6.7	4
41	Formation of AuSn <sub>x</sub> IMCs in Sn <sub>3.5</sub> Ag <sub>0.75</sub> Cu micro-solder joints fabricated by laser and hot air reflow processes. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2013</b> , 24, 217-223	2.1	4
40	Evolution of Cu/Al Intermetallic Compounds in the Copper Bump bonds during Aging Process <b>2007</b> ,		4
39	Silver flake/polyaniline composite ink for electrohydrodynamic printing of flexible heaters. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2021</b> , 32, 27373	2.1	4
38	Highly stretchable conductors comprising composites of silver nanowires and silver flakes. <i>Journal of Nanoparticle Research</i> , <b>2021</b> , 23, 1	2.3	4
37	Laser sintering mechanism and shear performance of CuAgCu joints with mixed bimodal size Ag nanoparticles. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2019</b> , 30, 7787-7793	2.1	3
36	Morphological evolution of atomically thin MoS <sub>2</sub> flakes synthesized by a chemical vapor deposition strategy. <i>CrystEngComm</i> , <b>2020</b> , 22, 4174-4179	3.3	3
35	In Situ Probing the Localized Optoelectronic Properties of Defective Monolayer WS <sub>2</sub> . <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 7591-7596	3.8	3
34	Flexible Electronics: Highly Stretchable Metallic Nanowire Networks Reinforced by the Underlying Randomly Distributed Elastic Polymer Nanofibers via Interfacial Adhesion Improvement (Adv. Mater. 37/2019). <i>Advanced Materials</i> , <b>2019</b> , 31, 1970265	24	3
33	Modeling thermal fatigue in anisotropic Sn-Ag-Cu/Cu solder joints <b>2009</b> ,		3
32	In-situ observation on microfracture behavior ahead of the crack tip in 63Sn37Pb solder alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2006</b> , 37, 1017-1025	2.3	3
31	Joining of copper nanowires by electrodepositing silver layer for high-performance transparent electrode. <i>Welding in the World, Le Soudage Dans Le Monde</i> , <b>2021</b> , 65, 1021-1030	1.9	3

- 30 Comparative study between the SnAgCu/ENIG and SnAgCu/ENEPIG solder joints under extreme temperature thermal shock. *Journal of Materials Science: Materials in Electronics*, **2021**, 32, 6890-6899<sup>2,1</sup> 3
- 29 Direct Heterogeneous Bonding of SiC to Si, SiO<sub>2</sub>, and Glass for High-Performance Power Electronics and Bio-MEMS **2019**, 2
- 28 SAC305 Solder Reflow: Identification of Melting and Solidification Using In-Process Resistance Monitoring. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, **2019**, 9, 1623-1631<sup>1,7</sup> 2
- 27 Shearing properties of low temperature Cu-In Solid-Liquid Interdiffusion in 3D package **2013**, 2
- 26 Development of a three-dimensional integrated solder ball bumping & bonding method for MEMS devices **2011**, 2
- 25 Recent Developments in the Electrochemical Determination of Sulfonamides. *Current Pharmaceutical Analysis*, **2022**, 18, 4-13 0.6 2
- 24 Highly stable and printable Ag NWs/GO/PVP composite ink for flexible electronics. *Flexible and Printed Electronics*, **2021**, 6, 024002 3.1 2
- 23 Ultrafast Parallel Micro-Gap Resistance Welding of an AuNi Microwire and Au Microlayer. *Micromachines*, **2021**, 12, 3.3 2
- 22 Rapid formation of full Cu-In intermetallic compounds (IMCs) joints under electric current **2015**, 1
- 21 Electroplating Enhanced Silver Nanowire Networks for Transparent Heaters **2018**, 1
- 20 Study on preparation and rapid laser sintering process of nano silver pastes **2017**, 1
- 19 Fatigue life prediction for CBGA under random vibration loading by finite element method **2014**, 1
- 18 Rapid formation of Cu-Sn intermetallic compounds by strong electric current **2014**, 1
- 17 Ultrasonic bondability and antioxidation property of Ti/Cu/Ag metallization on Si substrate **2010**, 1
- 16 Analysis of Cu<sub>6</sub>Sn<sub>5</sub> grain orientations in Sn<sub>3.0</sub>Ag<sub>0.5</sub>Cu lead-free solder joints **2011**, 1
- 15 Modeling of an oblique impact of solder droplet onto a groove with the impact point to be offset from the groove surfaces interface. *Journal of Materials Science*, **2009**, 44, 1772-1779 4.3 1
- 14 Effect of grain orientation on electromigration degradation in lead-free solder joints **2012**, 1
- 13 Evolution of intermetallic compounds at interface between PBGA solder ball and pads during laser reflow soldering 1

12	Thermalmechanical behavior of PBGA package during laser and hot air reflow soldering		1
11	Hybrid Plasma Activation Strategy for the Protein-Coated Magnesium Implants in Orthopedic Applications. <i>Advanced Materials Interfaces</i> , 2101724	4.6	1
10	Highly conductive and transient tracks based on silver flakes and a polyvinyl pyrrolidone composite.. <i>RSC Advances</i> , <b>2020</b> , 10, 33112-33118	3.7	1
9	Interconnection of Cu wire/Au plating pads using parallel gap resistance microwelding process <b>2016</b> ,		1
8	VUV/O3 activated bonder for low-temperature direct bonding of Si-based materials <b>2018</b> ,		1
7	Robust tuning of Kirkendall void density in circuit interconnections through substrate strain annealing. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2018</b> , 29, 8287-8292	2.1	
6	Fast failure of highly conductive transient track using silver nanowire/PEDOT:PSS composite. <i>Materials Research Express</i> , <b>2019</b> , 6, 1150e4	1.7	
5	In-Situ observation on microfracture behavior ahead of the crack tip in 63Sn37Pb solder alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2006</b> , 37, 1017-1025 <sup>2,3</sup>		
4	Evolution of Wafer Bonding Technology and Applications from Wafer-Level Packaging to Micro/Nanofluidics-Enhanced Sensing <b>2022</b> , 187-215		
3	Stoichiometry-Modulated Resonant Raman Spectroscopy of WS <sub>2</sub> (1-x)Se <sub>2x</sub> -Alloyed Monolayer Nanosheets. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 20547-20554	3.8	
2	Ratcheting Behavior of Sintered Copper Joints for Electronic Packaging. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2021</b> , 11, 983-989	1.7	
1	Relationship between dynamic resistance and welding quality during resistance spot welding for micron AuNi9 wire. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2022</b> , 120, 6605	3.2	