

# Chunqing Wang

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

220  
papers

2,763  
citations

27  
h-index

40  
g-index

331  
ext. papers

3,495  
ext. citations

3.8  
avg, IF

5.41  
L-index

#	Paper	IF	Citations
220	Revealing the ductile-to-brittle transition mechanism in polycrystalline body-centered tetragonal tin (Sn) for cryogenic electronics. <i>Journal of Alloys and Compounds</i> , <b>2022</b> , 903, 163948	5.7	0
219	Evolution of Wafer Bonding Technology and Applications from Wafer-Level Packaging to Micro/Nanofluidics-Enhanced Sensing <b>2022</b> , 187-215		
218	Rapid fabrication of Cu/40- $\mu\text{m}$ thick full Cu <sub>3</sub> Sn/Cu joints by applying pulsed high frequency electromagnetic field for high power electronics. <i>Materials Chemistry and Physics</i> , <b>2022</b> , 276, 125386	4.4	1
217	Communication Hollow MnO <sub>x</sub> @Nanoparticles Electrospun Fibers with High Porosity for Formaldehyde Removal at Room Temperature. <i>Journal of the Electrochemical Society</i> , <b>2022</b> , 169, 027518 <sup>3,9</sup>		
216	Ductile-to-brittle transition in fracture behaviors of common solder alloys over a temperature range down to -150 °C. <i>Materials Today Communications</i> , <b>2021</b> , 29, 102962	2.5	0
215	Superior Rate and Long-lived Performance of Few-Layered Black Phosphorus-Based Hybrid Anode for Lithium-Ion Batteries. <i>Electrochimica Acta</i> , <b>2021</b> , 403, 139697	6.7	1
214	Exposure to melamine cyanuric acid in adult mice induced thyroid dysfunction and circadian rhythm disorder. <i>Ecotoxicology and Environmental Safety</i> , <b>2021</b> , 228, 112992	7	0
213	Advances in the modification and device integration of multiferroic bismuth ferrite. <i>Ferroelectrics</i> , <b>2021</b> , 573, 87-102	0.6	0
212	Dissimilatory iron reduction and potential methane production in Chagan Lake wetland soils with carbon addition. <i>Wetlands Ecology and Management</i> , <b>2021</b> , 29, 369-379	2.1	2
211	Facile synthesis of Cu <sub>10</sub> Sn <sub>3</sub> nanoparticles and their sintering behavior for power device packaging. <i>Results in Materials</i> , <b>2021</b> , 10, 100187	2.3	
210	Maximum shear stress-controlled uniaxial tensile deformation and fracture mechanisms and constitutive relations of SnPb eutectic alloy at cryogenic temperatures. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2021</b> , 819, 141523	5.3	5
209	Preparation and sintering properties of Cu <sub>10</sub> Sn <sub>3</sub> IMCs nanopaste as die attach material for high temperature power electronics. <i>Materials Letters</i> , <b>2021</b> , 282, 128845	3.3	1
208	Low-Temperature Co-hydroxylated Cu/SiO <sub>2</sub> 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
207	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
206	Recycled low-temperature direct bonding of Si/glass and glass/glass chips for detachable micro/nanofluidic devices. <i>Journal of Materials Science and Technology</i> , <b>2020</b> , 46, 156-167	9.1	10
205	Fabrication and characterization of silk fibroin coating on APTES pretreated Mg-Zn-Ca alloy. <i>Materials Science and Engineering C</i> , <b>2020</b> , 110, 110742	8.3	10
204	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

203	Unique buoyancy-force-based kinetics determination of beta to alpha phase transformation in bulk tin plates. <i>Materials and Design</i> , <b>2020</b> , 190, 108550	8.1	3
202	Microstructure characterization of Al <sub>2</sub> O <sub>3</sub> /Mullite/AlN multiphase ceramic film on Cr/WCu substrate. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2020</b> , 31, 5941-5947	2.1	1
201	Investigation of Plasma Activation Directions for Low-Damage Direct Bonding. <i>ECS Journal of Solid State Science and Technology</i> , <b>2020</b> , 9, 081004	2	
200	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
199	Ohmic contact formation mechanisms of TiN film on 4H-SiC. <i>Ceramics International</i> , <b>2020</b> , 46, 7142-7148	5.1	3
198	Laser induced forward transfer of brittle Cu <sub>3</sub> Sn thin film. <i>Journal of Manufacturing Processes</i> , <b>2020</b> , 60, 48-53	5	0
197	Spontaneous formation of sub-4 nm nanocrystalline alloy via polymorphic phase transformation. <i>Materials Research Letters</i> , <b>2020</b> , 8, 431-437	7.4	0
196	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
195	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
194	Direct Heterogeneous Bonding of SiC to Si, SiO <sub>2</sub> , and Glass for High-Performance Power Electronics and Bio-MEMS <b>2019</b> ,		2
193	Moiré-Based Alignment Using Centrosymmetric Grating Marks for High-Precision Wafer Bonding. <i>Micromachines</i> , <b>2019</b> , 10,	3.3	2
192	Low-temperature direct bonding of Si and quartz glass using the APTES modification. <i>Ceramics International</i> , <b>2019</b> , 45, 16670-16675	5.1	7
191	Silk fibroin film-coated MgZnCa alloy with enhanced in vitro and in vivo performance prepared using surface activation. <i>Acta Biomaterialia</i> , <b>2019</b> , 91, 99-111	10.8	29
190	Laser sintering mechanism and shear performance of Cu/Ag/Cu 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
189	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
188	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
187	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
186	Pressureless low-temperature sintering of plasma activated Ag nanoparticles for high-power device packaging. <i>Materials Letters</i> , <b>2019</b> , 256, 126620	3.3	4

185	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
184	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
183	A novel cobalt-free CO <sub>2</sub> -stable perovskite-type oxygen permeable membrane. <i>Journal of Membrane Science</i> , <b>2019</b> , 573, 504-510	9.6	17
182	Low-temperature-solderable intermetallic nanoparticles for 3D printable flexible electronics. <i>Acta Materialia</i> , <b>2019</b> , 162, 163-175	8.4	15
181	Effect of electric current on grain orientation and mechanical properties of Cu-Sn intermetallic compounds joints. <i>Journal of Alloys and Compounds</i> , <b>2018</b> , 753, 203-211	5.7	18
180	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
179	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
178	Solderless bonding with nanoporous copper as interlayer for high-temperature applications. <i>Microelectronics Reliability</i> , <b>2018</b> , 80, 198-204	1.2	4
177	Room-Temperature Direct Heterogeneous Bonding of Glass and Polystyrene Substrates. <i>Journal of the Electrochemical Society</i> , <b>2018</b> , 165, B3091-B3097	3.9	2
176	Communication A Self-Contained Temperature Sensing Approach for Ultrafast Microwelding. <i>Journal of the Electrochemical Society</i> , <b>2018</b> , 165, B220-B222	3.9	4
175	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
174	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	
173	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
172	Glass-on-LiNbO <sub>3</sub> heterostructure formed via a two-step plasma activated low-temperature direct bonding method. <i>Applied Surface Science</i> , <b>2018</b> , 459, 621-629	6.7	24
171	Communication Ag NW Networks Enhanced by Ni Electroplating for Flexible Transparent Electrodes. <i>Journal of the Electrochemical Society</i> , <b>2018</b> , 165, D328-D330	3.9	6
170	Low-temperature wafer direct bonding of silicon and quartz glass by a two-step wet chemical surface cleaning. <i>Japanese Journal of Applied Physics</i> , <b>2018</b> , 57, 02BD02	1.4	8
169	VUV/O <sub>3</sub> activated bonder for low-temperature direct bonding of Si-based materials <b>2018</b> ,		1
168	A Modified Interposer Fabrication Process by Copper Nano-Pillars Filled in Anodic Aluminum Oxide Film for 3D Electronic Package. <i>Applied Sciences (Switzerland)</i> , <b>2018</b> , 8, 2188	2.6	4

167	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
166	The Fabrication of Micro-Array Channels with the Ultrafine-Grained LZ91 Mg-Li Alloy by Micro-Embossing. <i>Micromachines</i> , <b>2018</b> , 9,	3.3	9
165	Recent Progress in Rapid Sintering of Nanosilver for Electronics Applications. <i>Micromachines</i> , <b>2018</b> , 9,	3.3	15
164	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
163	Solid-State Spalling of Ag <sub>3</sub> Sn in an Eutectic SnPb Solder Joint with an Ag Thin Film/Ge Cell. <i>Journal of Electronic Materials</i> , <b>2018</b> , 47, 5625-5631	1.9	2
162	One-Step Fabrication of 3D Nanohierarchical Nickel Nanomace Array To Sinter with Silver NPs and the Interfacial Analysis. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 4798-4807	9.5	10
161	Crystallized Bi <sub>0.9</sub> La <sub>0.1</sub> Fe <sub>0.95</sub> Mn <sub>0.05</sub> O <sub>3</sub> /Ba <sub>0.7</sub> Sr <sub>0.3</sub> Ti <sub>0.95</sub> Co <sub>0.05</sub> O <sub>3</sub> bilayer thin films with enhanced multiferroic properties. <i>Applied Surface Science</i> , <b>2017</b> , 404, 162-167	6.7	4
160	Laser-induced actuation of individual microsize liquid metal droplets on an open solid surface. <i>Applied Physics Express</i> , <b>2017</b> , 10, 017202	2.4	2
159	Fusion behaviour and mechanism of ultrafine Ag-Cu nanoparticles induced by electron beam irradiation. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2017</b> , 28, 8206-8210	2.1	1
158	A Comparative Study: Void Formation in Silicon Wafer Direct Bonding by Oxygen Plasma Activation with and without Fluorine. <i>ECS Journal of Solid State Science and Technology</i> , <b>2017</b> , 6, P7-P13	2	18
157	Room-temperature direct bonding of silicon and quartz glass wafers. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 221602	3.4	22
156	Laser Sintering of Nano-Ag Particle Paste for High-Temperature Electronics Assembly. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2017</b> , 7, 1050-1057	1.7	4
155	Microstructure evolution and thermostability of bondline based on Cu@Sn core-shell structured microparticles under high-temperature conditions. <i>Materials and Design</i> , <b>2017</b> , 131, 196-203	8.1	22
154	Study of electroless Sn-coated Cu microparticles and their application as a high temperature thermal interface material. <i>Surface and Coatings Technology</i> , <b>2017</b> , 319, 230-240	4.4	11
153	Enhanced shear strength of Cu <sub>3</sub> Sn 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
152	Low temperature nanojoining of silver-copper nanopaste as die attach material for high temperature packaging. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2017</b> , 28, 5446-5451	2.1	4
151	Mechanical properties and fracture mechanisms of Sn-3.0Ag-0.5Cu solder alloys and joints at cryogenic temperatures. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2017</b> , 684, 697-705	5.3	23
150	Micro heat pipe device utilizing extended nanofluidics. <i>RSC Advances</i> , <b>2017</b> , 7, 50591-50597	3.7	8

149	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
148	Ultrafast formation of unidirectional and reliable Cu <sub>3</sub> Sn-based intermetallic joints assisted by electric current. <i>Intermetallics</i> , <b>2017</b> , 80, 26-32	3.5	18
147	Study on preparation and rapid laser sintering process of nano silver pastes <b>2017</b> ,		1
146	Study on the pre-tinned effect in the electroless tin plating process <b>2017</b> ,		1
145	Rapid sintering of copper nanopaste by pulse current for power electronics packaging <b>2017</b> ,		2
144	Fuzzy Comprehensive Evaluation Model for Flight Safety Evaluation Research Based on an Empowerment Combination. <i>Advances in Intelligent Systems and Computing</i> , <b>2017</b> , 1479-1491	0.4	1
143	Preparation and Sintering Properties of Ag <sub>27</sub> Cu <sub>2</sub> Sn Nanopaste as Die Attach Material. <i>Journal of Electronic Materials</i> , <b>2016</b> , 45, 5436-5442	1.9	4
142	Extremely fast formation of CuSn intermetallic compounds in Cu/Sn/Cu system via a micro-resistance spot welding process. <i>Journal of Alloys and Compounds</i> , <b>2016</b> , 687, 667-673	5.7	36
141	The role of chloride ions in rapid synthesis of ultra-long silver nanowires for flexible electrodes. <i>Materials Research Express</i> , <b>2016</b> , 3, 075007	1.7	15
140	Communication Fluorinated Plasma Treatments Using PTFE Substrates for Room-Temperature Silicon Wafer Direct Bonding. <i>ECS Journal of Solid State Science and Technology</i> , <b>2016</b> , 5, P393-P395	2	4
139	Effects of temperature and dispersants on the phases and morphology of Ag <sub>2</sub> Cu nanoparticles. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2016</b> , 27, 10065-10069	2.1	7
138	Facile synthesis of Cu <sub>2</sub> Ag hybrid nanowires with strong surface-enhanced Raman scattering sensitivity. <i>CrystEngComm</i> , <b>2016</b> , 18, 1200-1206	3.3	15
137	Recent Progress in Ohmic Contacts to Silicon Carbide for High-Temperature Applications. <i>Journal of Electronic Materials</i> , <b>2016</b> , 45, 267-284	1.9	44
136	Optimization and modeling for one-step synthesis process of Ag <sub>2</sub> Cu nano-particles using DOE methodology. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2016</b> , 27, 4265-4274	2.1	8
135	The influence of strengthening and recrystallization to the cracking behavior of Ni, Sb, Bi alloyed SnAgCu solder during thermal cycling. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2016</b> , 652, 264-270	5.3	21
134	TEM observation of interfacial compounds of SnAgCu/ENIG solder bump after laser soldering and subsequent hot air reflows. <i>Materials Letters</i> , <b>2016</b> , 163, 254-257	3.3	10
133	Interconnection of Cu wire/Au plating pads using parallel gap resistance microwelding process <b>2016</b> ,		1
132	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, 11583-11597	3.1	7

131	Low-temperature bonding process for the fabrication of hybrid glass/membrane organ-on-a-chip devices. <i>Journal of Micro/Nanolithography, MEMS, and MOEMS</i> , <b>2016</b> , 15, 044502	0.7	4
130	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
129	Effect of Cu grain size on the voiding propensity at the interface of SnAgCu/Cu solder joints. <i>Materials Letters</i> , <b>2015</b> , 144, 97-99	3.3	29
128	Fabrication of Al <sub>2</sub> O <sub>3</sub> /Mullite/AlN Multiphase Ceramic Layer on WCu Substrates for Power Semiconductor Packaging. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2015</b> , 5, 182-187	1.7	5
127	Microstructures, corrosion and mechanical properties of as-cast Mg <sub>92</sub> Zn <sub>4</sub> (Gd) alloys. <i>Transactions of Nonferrous Metals Society of China</i> , <b>2015</b> , 25, 2172-2180	3.3	38
126	Synthesis of CrO single crystal slices by firing under water vapor atmosphere. <i>Materials Letters</i> , <b>2015</b> , 152, 13-16	3.3	1
125	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
124	Effect of the Silver Content of SnAgCu Solder on the Interfacial Reaction and on the Reliability of Angle Joints Fabricated by Laser-Jet Soldering. <i>Journal of Electronic Materials</i> , <b>2015</b> , 44, 733-743	1.9	4
123	Rapid formation of full Cu-In intermetallic compounds (IMCs) joints under electric current <b>2015</b> ,		1
122	Microstructures and Properties of As-Cast Mg <sub>92</sub> Zn <sub>4</sub> Y <sub>4</sub> and Mg <sub>92</sub> Zn <sub>4</sub> Y <sub>3</sub> Gd <sub>1</sub> Alloys with LPSO Phase. <i>Rare Metal Materials and Engineering</i> , <b>2015</b> , 44, 1617-1622		5
121	The influence of high melting point elements on the reliability of solder during thermal shocks <b>2015</b> ,		1
120	Joining of Silver Nanowires by Femtosecond Laser Irradiation Method. <i>Materials Transactions</i> , <b>2015</b> , 56, 981-983	1.3	8
119	Low Temperature Sintering Cu <sub>6</sub> Sn <sub>5</sub> Nanoparticles for Superplastic and Super-uniform High Temperature Circuit Interconnections. <i>Small</i> , <b>2015</b> , 11, 4097-103	11	38
118	The investigation of quality of life in 87 Chinese patients with disorders of sex development. <i>BioMed Research International</i> , <b>2015</b> , 2015, 342420	3	10
117	In situ quantitative study of microstructural evolution at the interface of Sn <sub>3.0</sub> Ag <sub>0.5</sub> Cu/Cu solder joint during solid state aging. <i>Journal of Alloys and Compounds</i> , <b>2015</b> , 634, 94-98	5.7	14
116	Characterization of the Microstructure of an AlN-Mullite-Al <sub>2</sub> O <sub>3</sub> Ceramic Layer on WCu Composite Alloy for Microelectronic Application. <i>Journal of Electronic Materials</i> , <b>2015</b> , 44, 4154-4160	1.9	3
115	Suppression of void nucleation in Sn <sub>3.0</sub> Ag <sub>0.5</sub> Cu/CU solder joint by rapid thermal processing. <i>Materials Letters</i> , <b>2015</b> , 158, 252-254	3.3	4
114	Effect of Au-Sn IMCs/Formation and morphologies on shear properties of laser reflowed micro-solder joints. <i>Soldering and Surface Mount Technology</i> , <b>2015</b> , 27, 45-51	1.4	18

113	Research and analysis of central heating systems in Changchun <b>2015</b> , 161-165		
112	Design and simulation research of Ground Source Heat Pump system in severe cold regions <b>2015</b> , 157-160		
111	Relationship between morphologies and orientations of Cu <sub>6</sub> Sn <sub>5</sub> grains in Sn <sub>3.0</sub> Ag <sub>0.5</sub> Cu solder joints on different Cu pads. <i>Materials Characterization</i> , <b>2014</b> , 88, 58-68	3.9	46
110	Cu nanoparticles of low polydispersity synthesized by a double-template method and their stability. <i>Colloid and Polymer Science</i> , <b>2014</b> , 292, 715-722	2.4	14
109	Effects of ultrasonic irradiation and cooling rate on the solidification microstructure of Sn <sub>3.0</sub> Ag <sub>0.5</sub> Cu alloy. <i>Journal of Materials Processing Technology</i> , <b>2014</b> , 214, 13-20	5.3	17
108	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
107	Effects of Ba <sub>0.7</sub> Sr <sub>0.3</sub> TiO <sub>3</sub> -based buffer layers and La/Mn doping on the crystallization behavior and multiferroic properties of BiFeO <sub>3</sub> thin films. <i>RSC Advances</i> , <b>2014</b> , 4, 55889-55896	3.7	5
106	Ultrafine-Grain and Isotropic Cu/SAC305/Cu Solder Interconnects Fabricated by High-Intensity Ultrasound-Assisted Solidification. <i>Journal of Electronic Materials</i> , <b>2014</b> , 43, 2467-2478	1.9	17
105	Ultrarapid formation of homogeneous Cu <sub>6</sub> Sn <sub>5</sub> and Cu <sub>3</sub> Sn intermetallic compound joints at room temperature using ultrasonic waves. <i>Ultrasonics Sonochemistry</i> , <b>2014</b> , 21, 924-9	8.9	37
104	Parallel-gap resistance welding between gold-plated silver interconnects and silver electrodes in germanium solar cells <b>2014</b> ,		1
103	Rapid formation of Cu-Sn intermetallic compounds by strong electric current <b>2014</b> ,		1
102	Secondary optical design of LED lamps with high CRI and adjustable CCT <b>2014</b> ,		1
101	Fabrication of Cu <sub>6</sub> Sn <sub>5</sub> single-crystal layer for under-bump metallization in flip-chip packaging. <i>Intermetallics</i> , <b>2013</b> , 42, 52-55	3.5	8
100	Shear Deformation Behaviors of Sn <sub>3.5</sub> Ag Lead-free Solder Samples. <i>Journal of Materials Science and Technology</i> , <b>2013</b> , 29, 471-479	9.1	7
99	Formation mechanism and orientation of Cu <sub>3</sub> Sn grains in Cu <sub>3</sub> Sn intermetallic compound joints. <i>Materials Letters</i> , <b>2013</b> , 110, 137-140	3.3	54
98	Synthesis of multiferroic Bi <sub>0.9</sub> La <sub>0.1</sub> Fe <sub>0.95</sub> Mn <sub>0.05</sub> O <sub>3</sub> Ba <sub>0.7</sub> Sr <sub>0.3</sub> TiO <sub>3</sub> /Ni <sub>0.8</sub> Zn <sub>0.2</sub> Fe <sub>2</sub> O <sub>4</sub> nanotubes with one closed end using a template-assisted sol-gel process. <i>CrystEngComm</i> , <b>2013</b> , 15, 2147	3.3	11
97	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
96	Rapid pressureless low-temperature sintering of Ag nanoparticles for high-power density electronic packaging. <i>Scripta Materialia</i> , <b>2013</b> , 69, 789-792	5.6	102



95	Electrochemical synthesis of NiS/CeO <sub>2</sub> composite electrodes for hydrogen evolution reaction. <i>Journal of Power Sources</i> , <b>2013</b> , 230, 10-14	8.9	33
94	Multiferroic properties of La and Mn co-doped BiFeO <sub>3</sub> nanofibers by sol-gel and electrospinning technique. <i>Materials Letters</i> , <b>2013</b> , 90, 45-48	3.3	57
93	Fabrication of multiferroic Ba <sub>0.7</sub> Sr <sub>0.3</sub> TiO <sub>3</sub> Ni <sub>0.8</sub> Zn <sub>0.2</sub> Fe <sub>2</sub> O <sub>4</sub> composite nanofibers by electrospinning. <i>Materials Letters</i> , <b>2013</b> , 91, 55-58	3.3	14
92	Rapid formation of Cu/Cu <sub>3</sub> Sn/Cu joints using ultrasonic bonding process at ambient temperature. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 094104	3.4	58
91	Manufacturing and Microstructure of Cu Coated Diamonds/SnAgCu Composite Solder Bumps. <i>Applied Mechanics and Materials</i> , <b>2013</b> , 288, 323-327	0.3	1
90	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
89	Molecular Dynamics study of thermal conductivity in bismuth telluride thin films <b>2013</b> ,		1
88	The effects of humidity and temperature aging test on flexible packaging LED module <b>2013</b> ,		4
87	RESEARCH ON MICROSTRUCTURE OF Pb-FREE BGASOLDER JOINT ASSEMBLED WITH Sn-Pb SOLDER DURING ISOTHERMAL AGING. <i>Jinshu Xuebao/Acta Metallurgica Sinica</i> , <b>2013</b> , 49, 831		2
86	Precision Study for Surface Tension Driven Self-assembly of Hingeless Structures. <i>Journal of Applied Sciences</i> , <b>2013</b> , 13, 2807-2812	0.3	
85	Synthesis of Co-doped barium strontium titanate nanofibers by sol-gel/electrospinning process. <i>Materials Letters</i> , <b>2012</b> , 75, 207-210	3.3	12
84	Investigation of fluorine containing plasma activation for room-temperature bonding of Si-based materials. <i>Microelectronics Reliability</i> , <b>2012</b> , 52, 347-351	1.2	20
83	Mechanical properties and microstructures of hybrid ultrasonic resistance brazing of WC-Co/BeCu. <i>Journal of Materials Processing Technology</i> , <b>2012</b> , 212, 1885-1891	5.3	14
82	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
81	Oxidation and Au-Sn reaction of laser reflowed micro-solder joints protected by N <sub>2</sub> or exposed to air atmosphere. <i>Soldering and Surface Mount Technology</i> , <b>2012</b> , 24, 191-196	1.4	6
80	Ultrasonic Bondability and Antioxidation Property of Ti/Cu/TaN/Ag Multi-layers on Si Substrate. <i>Thin Solid Films</i> , <b>2012</b> , 524, 224-228	2.2	4
79	The effect of voids on thermal conductivity of solder joints <b>2012</b> ,		5
78	Mechanism of low temperature Cu-In Solid-Liquid Interdiffusion bonding in 3D package <b>2012</b> ,		7

77	Fabrication of interconnects using pressureless low temperature sintered Ag nanoparticles. <i>Materials Letters</i> , <b>2012</b> , 85, 61-63	3.3	53
76	Morphologies and grain orientations of Cu <sub>6</sub> Sn intermetallic compounds in Sn <sub>3.0</sub> Ag <sub>0.5</sub> Cu/Cu solder joints. <i>Materials Letters</i> , <b>2012</b> , 86, 157-160	3.3	21
75	Interfacial reactions of eutectic Sn <sub>3.5</sub> Ag and pure tin solders with Cu substrates during liquid-state soldering. <i>Intermetallics</i> , <b>2012</b> , 25, 86-94	3.5	42
74	Effect of Diamond Additions on Wettability and Distribution of SnAgCu Composite Solder. <i>Journal of Materials Science and Technology</i> , <b>2012</b> , 28, 661-665	9.1	10
73	Ni <sub>0.1</sub> Fe <sub>0.2</sub> O <sub>2</sub> composite cathode material for hydrogen evolution reaction in alkaline electrolyte. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 13921-13932	6.7	76
72	Solar Water Heating System and Building Integration of High-Rise Building in Seismic Zone. <i>Advanced Materials Research</i> , <b>2012</b> , 512-515, 163-167	0.5	
71	Prediction of Municipal Solid Waste Production in Changchun City Based on Gray Model GM(1,5). <i>Applied Mechanics and Materials</i> , <b>2012</b> , 178-181, 799-803	0.3	2
70	Effect of grain orientation on electromigration degradation in lead-free solder joints <b>2012</b> ,		1
69	The Process Optimization of EFO for Copper Wire Bonding. <i>Advanced Materials Research</i> , <b>2012</b> , 482-484, 763-766	0.5	
68	Effects of bump size on deformation and fracture behavior of Sn <sub>3.0</sub> Ag <sub>0.5</sub> Cu/Cu solder joints during shear testing. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2011</b> , 529, 468-478	5.3	40
67	Reliability and failure analysis of fine copper wire bonds encapsulated with commercial epoxy molding compound. <i>Microelectronics Reliability</i> , <b>2011</b> , 51, 157-165	1.2	26
66	Development of a three-dimensional integrated solder ball bumping & bonding method for MEMS devices <b>2011</b> ,		2
65	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 <b>2011</b> ,		1
64	Self-assembly of three-dimensional microstructures in MEMS via fluxless laser reflow soldering <b>2011</b> ,		1
63	Room-Temperature Direct Bonding Using Fluorine Containing Plasma Activation. <i>Journal of the Electrochemical Society</i> , <b>2011</b> , 158, H525	3.9	14
62	Ultrasonic bondability and antioxidation property of Ti/Cu/Ag metallization on Si substrate <b>2010</b> ,		1
61	Investigation on Sn grain number and crystal orientation in the Sn <sub>3.0</sub> Ag <sub>0.5</sub> Cu/Cu solder joints of different sizes. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2010</b> , 21, 1174-1180	2.1	21
60	MICROSTRUCTURE AND RELIABILITY OF LASER JET SOLDER BALL BONDING SOLDER JOINTS. <i>Jinshu Xuebao/Acta Metallurgica Sinica</i> , <b>2010</b> , 46, 1115-1120		2

59	ULTRASONIC BONDABILITY AND ANTIOXIDATION PROPERTY OF TiN/Ag METALLIZATION ON Cu PAD. <i>Jinshu Xuebao/Acta Metallurgica Sinica</i> , <b>2010</b> , 46, 618-622		
58	Modeling of an oblique impact of solder droplet onto a groove with the impact point to be offset from the groove surfaces interface. <i>Journal of Materials Science</i> , <b>2009</b> , 44, 1772-1779	4.3	1
57	Effect of electronic flame off parameters on copper bonding wire: Free-air ball deformability, heat affected zone length, heat affected zone breaking force. <i>Microelectronic Engineering</i> , <b>2009</b> , 86, 2094-2103	2.5	25
56	In situ measurement of bond resistance varying with process parameters during ultrasonic wedge bonding. <i>Journal of Materials Processing Technology</i> , <b>2009</b> , 209, 139-144	5.3	3
55	Shape and fatigue life prediction of chip resistor solder joints <b>2009</b> ,		2
54	Modeling thermal fatigue in anisotropic Sn-Ag-Cu/Cu solder joints <b>2009</b> ,		3
53	Modeling of Micropitch Shift of a Magnetoelctrical Sensor During Laser Solder Ball Bonding Process. <i>IEEE Transactions on Advanced Packaging</i> , <b>2009</b> , 32, 136-145		2
52	Nano features of Al/Au ultrasonic bond interface observed by high resolution transmission electron microscopy. <i>Materials Characterization</i> , <b>2008</b> , 59, 1419-1424	3.9	23
51	Investigation of sagging phenomenon observed in laser reflow soldering right-angled solder joints during isothermal aging or thermal cycle process. <i>Journal of Alloys and Compounds</i> , <b>2008</b> , 458, 323-329	5.7	2
50	Bonding mechanism of ultrasonic wedge bonding of copper wire on Au/Ni/Cu substrate. <i>Transactions of Nonferrous Metals Society of China</i> , <b>2008</b> , 18, 132-137	3.3	23
49	Effect of Zn addition in Sn-rich alloys on interfacial reaction with Au foils. <i>Transactions of Nonferrous Metals Society of China</i> , <b>2008</b> , 18, 617-622	3.3	4
48	Effect of solidification on solder bump formation in solder jet process: Simulation and experiment. <i>Transactions of Nonferrous Metals Society of China</i> , <b>2008</b> , 18, 1201-1208	3.3	16
47	Effect of Thermal Aging on the Microstructure Evolution and Solder Joint Reliability in Hard Disk Drive Under Mechanical Shock. <i>IEEE Transactions on Components and Packaging Technologies</i> , <b>2008</b> , 31, 831-836		2
46	Investigation of interfacial reaction between eutectic Sn/Bi solder droplet and Au/Ni/Cu pad. <i>Materials Science and Technology</i> , <b>2008</b> , 24, 744-750	1.5	1
45	Three-dimensional modelling of solder droplet impact onto a groove. <i>Journal Physics D: Applied Physics</i> , <b>2008</b> , 41, 245503	3	3
44	Research on Knowledge Expression of ETO Product for Mass Customization <b>2008</b> ,		1
43	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
42	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

41	Bonding wire characterization using automatic deformability measurement. <i>Microelectronic Engineering</i> , <b>2008</b> , 85, 1795-1803	2.5	20
40	Finite element modeling of electron beam welding of a large complex Al alloy structure by parallel computations. <i>Journal of Materials Processing Technology</i> , <b>2008</b> , 199, 41-48	5.3	32
39	Investigation of ultrasonic copper wire wedge bonding on Au/Ni plated Cu substrates at ambient temperature. <i>Journal of Materials Processing Technology</i> , <b>2008</b> , 208, 179-186	5.3	42
38	Microstructural study of copper free air balls in thermosonic wire bonding. <i>Microelectronic Engineering</i> , <b>2008</b> , 85, 1815-1819	2.5	31
37	Growth behavior of Cu/Al intermetallic compounds and cracks in copper ball bonds during isothermal aging. <i>Microelectronics Reliability</i> , <b>2008</b> , 48, 416-424	1.2	164
36	Design of Solder Joint for Self-Alignment in Optical Fiber Attachment Soldering <b>2007</b> ,		2
35	Observation of Ultrasonic Al-Si Wire Wedge Bond Interface Using High Resolution Transmission Electron Microscope <b>2007</b> ,		1
34	Comparison of interface evolution of ultrasonic aluminum and gold wire wedge bonds during thermal aging. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2007</b> , 447, 111-118	5.3	14
33	Evolution of the bond interface during ultrasonic AlSi wire wedge bonding process. <i>Journal of Materials Processing Technology</i> , <b>2007</b> , 182, 202-206	5.3	18
32	Evolution of Cu/Al Intermetallic Compounds in the Copper Bump bonds during Aging Process <b>2007</b> ,		4
31	Effects of Solder Volume on Formation and Redeposition of Au-Containing Intermetallics in Ni/Au-SnAgCu-Ni(P) Solder Joints. <i>Journal of Electronic Materials</i> , <b>2007</b> , 36, 33-39	1.9	5
30	Cross-Interaction of Interfacial Reactions in Ni (Au/Ni/Cu)-SnAg-Cu Solder Joints during Reflow Soldering and Thermal Aging. <i>Journal of Electronic Materials</i> , <b>2007</b> , 36, 26-32	1.9	14
29	Influence of aging treatment on deformation behavior of 96.5Sn3.5Ag lead-free solder alloy during in situ tensile tests. <i>Journal of Alloys and Compounds</i> , <b>2007</b> , 428, 274-285	5.7	43
28	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
27	Modeling of Three-Dimensional Geometry of Solder Joint in Fiber Attachment Soldering <b>2006</b> ,		1
26	Interfacial Characterization and Bonding Mechanism of Ultrasonic Wedge Bonding <b>2006</b> ,		2
25	The effects of pulsed Nd:YAG laser irradiation on surface energy of copper. <i>Applied Surface Science</i> , <b>2006</b> , 252, 4257-4263	6.7	14
24	In situ TEM observation of microcrack nucleation and propagation in pure tin solder. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , <b>2006</b> , 127, 62-69	3.1	12

23	Interdiffusion of Al-Ni system enhanced by ultrasonic vibration at ambient temperature. <i>Ultrasonics</i> , <b>2006</b> , 45, 61-5	3.5	22
22	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>		
21	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>		
20	Nd:YAG laser surface treatment of copper to improve the wettability of Sn3.5Ag solder on copper. <i>Surface and Coatings Technology</i> , <b>2005</b> , 200, 2181-2186	4.4	5
19	Evolution of deformation near the triple point of grain junctions in Sn-based solders during in situ tensile test. <i>Materials Letters</i> , <b>2005</b> , 59, 697-700	3.3	9
18	Scanning electron microscope in-situ investigation of fracture behavior in 96.5Sn3.5Ag lead-free solder. <i>Journal of Electronic Materials</i> , <b>2005</b> , 34, 1324-1335	1.9	8
17	In-situ SEM observation on fracture behaviors of Sn-based solder alloys. <i>Journal of Materials Science</i> , <b>2005</b> , 40, 1993-2001	4.3	5
16	Thermomechanical behaviour of PBGA package during laser and hot air reflow soldering. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>2004</b> , 12, 235-243	2	11
15	Aging effects on fracture behavior of 63Sn37Pb eutectic solder during tensile tests under the SEM. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2004</b> , 384, 314-323	5.3	17
14	Aging effects on fracture behavior of 63Sn37Pb eutectic solder during tensile tests under the SEM <b>2004</b> , 384, 314-314		31
13	<b>2003</b> ,		1
12	Interaction kinetics between PBGA solder balls and Au/Ni/Cu metallisation during laser reflow bumping. <i>Soldering and Surface Mount Technology</i> , <b>2003</b> , 15, 17-21	1.4	8
11	Electronic structure mechanism for the wettability of Sn-based solder alloys. <i>Journal of Electronic Materials</i> , <b>2002</b> , 31, 185-190	1.9	35
10	Intermetallic compounds formation at interface between PBGA solder ball and Au/Ni/Cu/BT PCB substrate after laser reflow processes. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , <b>2002</b> , 95, 254-262	3.1	30
9	Electronic structure calculation for properties of Sn-based solder alloys with the relativistic DV-X $\alpha$ method. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>2002</b> , 10, 121-129	2	4
8	An integrated system for prediction and analysis of solder interconnection shapes. <i>IEEE Transactions on Electronics Packaging Manufacturing</i> , <b>2000</b> , 23, 87-92		16
7	Computer simulation of three-dimensional castellated solder joint geometry in surface mount technology. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>1998</b> , 6, 557-565	2	8
6			1

5	Effect of thermal aging on microstructure, shear and mechanical shock failures for solder ball bonding joint		1
4	Comparison of AuSnx IMCs's Morphology, Distribution in Lead-free Solder Joints Fabricated by Laser and Hot Air Reflow Process		1
3	Evolution of intermetallic compounds at interface between PBGA solder ball and pads during laser reflow soldering		1
2	Thermalmechanical behavior of PBGA package during laser and hot air reflow soldering		1
1	Hybrid Plasma Activation Strategy for the Protein-Coated Magnesium Implants in Orthopedic Applications. <i>Advanced Materials Interfaces</i> ,2101724	4.6	1