Yun-Hui Mei

List of Publications by Year
in descending order

131	2,206	186209	302012
papers	citations	28 h-index	39 g-index

133	133	133	979
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Pressureless sintering of nanosilver paste at low temperature to join large area (â‰¥100mm2) power chips for electronic packaging. Materials Letters, 2014, 128, 42-45.	1.3	99
2	A novel multiscale silver paste for die bonding on bare copper by low-temperature pressure-free sintering in air. Materials and Design, 2018, 140, 64-72.	3.3	70
3	Creep properties of low-temperature sintered nano-silver lap shear joints. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 579, 108-113.	2.6	69
4	Applying viscoplastic constitutive models to predict ratcheting behavior of sintered nanosilver lap-shear joint. Mechanics of Materials, 2014, 72, 61-71.	1.7	58
5	Study on high temperature bonding reliability of sintered nano-silver joint on bare copper plate. Microelectronics Reliability, 2015, 55, 2524-2531.	0.9	58
6	Transient Thermal Performance of IGBT Power Modules Attached by Low-Temperature Sintered Nanosilver. IEEE Transactions on Device and Materials Reliability, 2012, 12, 124-132.	1.5	57
7	Correlation between interfacial microstructure and bonding strength of sintered nanosilver on ENIG and electroplated Ni/Au direct-bond-copper (DBC) substrates. Journal of Alloys and Compounds, 2016, 675, 317-324.	2.8	53
8	Migration of Sintered Nanosilver Die-Attach Material on Alumina Substrate Between 250 $^{circ}hbox{C}$ and 400 $^{ circ}hbox{C}$ in Dry Air. IEEE Transactions on Device and Materials Reliability, 2011, 11, 316-322.	1.5	51
9	High-Temperature Creep Behavior of Low-Temperature-Sintered Nano-Silver Paste Films. Journal of Electronic Materials, 2012, 41, 782-790.	1.0	50
10	Simplification of Low-Temperature Sintering Nanosilver for Power Electronics Packaging. Journal of Electronic Materials, 2013, 42, 1209-1218.	1.0	45
11	Reliability Evaluation of Multichip Phase-Leg IGBT Modules Using Pressureless Sintering of Nanosilver Paste by Power Cycling Tests. IEEE Transactions on Power Electronics, 2017, 32, 6049-6058.	5.4	41
12	Rapid sintering of nano-Ag paste at low current to bond large area (>100â€¯mm2) power chips for electronics packaging. Journal of Materials Processing Technology, 2018, 255, 644-649.	3.1	41
13	High temperature ratcheting behavior of nano-silver paste sintered lap shear joint under cyclic shear force. Microelectronics Reliability, 2013, 53, 174-181.	0.9	40
14	Rapid Sintering Nanosilver Joint by Pulse Current for Power Electronics Packaging. IEEE Transactions on Device and Materials Reliability, 2013, 13, 258-265.	1.5	39
15	Additive Manufacturing of Toroid Inductor for Power Electronics Applications. IEEE Transactions on Industry Applications, 2017, 53, 5709-5714.	3.3	39
16	Pressureless sintering of nanosilver paste as die attachment on substrates with ENIG finish for semiconductor applications. Journal of Alloys and Compounds, 2019, 777, 578-585.	2.8	38
17	Effect of Oxygen Partial Pressure on Silver Migration of Low-Temperature Sintered Nanosilver Die-Attach Material. IEEE Transactions on Device and Materials Reliability, 2011, 11, 312-315.	1.5	36
18	Effect of joint sizes of low-temperature sintered nano-silver on thermal residual curvature of sandwiched assembly. International Journal of Adhesion and Adhesives, 2012, 35, 88-93.	1.4	36

#	Article	IF	Citations
19	Reliability comparison between SAC305 joint and sintered nanosilver joint at high temperatures for power electronic packaging. Journal of Materials Processing Technology, 2014, 214, 1900-1908.	3.1	34
20	Parametric Study on Pressureless Sintering of Nanosilver Paste to Bond Large-Area (â‰¥100Âmm2) Power Chips at Low Temperatures for Electronic Packaging. Journal of Electronic Materials, 2015, 44, 3973-3984.	1.0	34
21	Reliability Improvement of a Double-Sided IGBT Module by Lowering Stress Gradient Using Molybdenum Buffers. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2019, 7, 1637-1648.	3.7	33
22	Investigation of Post-Etch Copper Residue on Direct Bonded Copper (DBC) Substrates. Journal of Electronic Materials, 2011, 40, 2119-2125.	1.0	31
23	Mechanical property evaluation of nanoâ€silver paste sintered joint using lapâ€shear test. Soldering and Surface Mount Technology, 2012, 24, 120-126.	0.9	31
24	Pressure-Assisted Low-Temperature Sintering of Nanosilver Paste for 5$,imes,$5-${m mm}^{2}$ Chip Attachment. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2012, 2, 1759-1767.	1.4	31
25	Transient Thermal Impedance Measurements on Low-Temperature-Sintered Nanoscale Silver Joints. Journal of Electronic Materials, 2012, 41, 3152-3160.	1.0	30
26	Uniaxial ratcheting behavior of sintered nanosilver joint for electronic packaging. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 591, 121-129.	2.6	30
27	Design and Additive Manufacturing of Multipermeability Magnetic Cores. IEEE Transactions on Industry Applications, 2018, 54, 3541-3547.	3.3	30
28	Dependence of electrochemical migration of sintered nanosilver on chloride. Materials Chemistry and Physics, 2015, 151, 18-21.	2.0	29
29	Enhanced pressureless bonding by Tin Doped Silver Paste at low sintering temperature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 660, 71-76.	2.6	29
30	Ferrite Paste Cured With Ultraviolet Light for Additive Manufacturing of Magnetic Components for Power Electronics. IEEE Magnetics Letters, 2018, 9, 1-5.	0.6	29
31	Characterization and Reliability of Sintered Nanosilver Joints by a Rapid Current-Assisted Method for Power Electronics Packaging. IEEE Transactions on Device and Materials Reliability, 2014, 14, 262-267.	1.5	28
32	Thermo-Mechanical Reliability of Double-Sided IGBT Assembly Bonded by Sintered Nanosilver. IEEE Transactions on Device and Materials Reliability, 2014, 14, 194-202.	1.5	28
33	Mechanism of Migration of Sintered Nanosilver at High Temperatures in Dry Air for Electronic Packaging. IEEE Transactions on Device and Materials Reliability, 2014, 14, 311-317.	1.5	27
34	Ratcheting behavior of sandwiched assembly joined by sintered nanosilver for power electronics packaging. Microelectronics Reliability, 2013, 53, 645-651.	0.9	24
35	Three-Dimensional Visualization of the Crack-Growth Behavior of Nano-Silver Joints During Shear Creep. Journal of Electronic Materials, 2015, 44, 761-769.	1.0	24
36	Novel interface material used in high power electronic die-attaching on bare Cu substrates. Journal of Materials Science: Materials in Electronics, 2016, 27, 10941-10950.	1.1	23

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37	How to determine surface roughness of copper substrate for robust pressureless sintered silver in air. Materials Letters, 2018, 228, 327-330.	1.3	23
38	Pressureless Sintered-Silver Die-Attach at 180 Â°C for Power Electronics Packaging. IEEE Transactions on Power Electronics, 2021, 36, 12141-12145.	5.4	23
39	Electrical method to measure the transient thermal impedance of insulated gate bipolar transistor module. IET Power Electronics, 2015, 8, 1009-1016.	1.5	22
40	Effect of Sintering Temperature on Magnetic Core-Loss Properties of a NiCuZn Ferrite for High-Frequency Power Converters. Journal of Electronic Materials, 2015, 44, 3788-3794.	1.0	22
41	Pressureless Silver Sintering on Nickel for Power Module Packaging. IEEE Transactions on Power Electronics, 2019, 34, 7121-7125.	5.4	22
42	Characterizations of Rapid Sintered Nanosilver Joint for Attaching Power Chips. Materials, 2016, 9, 564.	1.3	21
43	Hygrothermal Effects on the Tensile Properties of Anisotropic Conductive Films. Journal of Electronic Materials, 2009, 38, 2415-2426.	1.0	20
44	Effects of Die-Attach Material and Ambient Temperature on Properties of High-Power COB Blue LED Module. IEEE Transactions on Electron Devices, 2015, 62, 2251-2256.	1.6	20
45	Low-Pressure-Assisted Large-Area (>800 mm²) Sintered-Silver Bonding for High-Power Electronic Packaging. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2018, 8, 202-209.	1.4	18
46	Effects of sintering temperature on properties of toroid cores using NiZnCu ferrites for power applications at >1â€¯MHz. Journal of Magnetism and Magnetic Materials, 2018, 454, 6-12.	1.0	17
47	Characterizations of a Proposed 3300-V Press-Pack IGBT Module Using Nanosilver Paste for High-Voltage Applications. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2018, 6, 2245-2253.	3.7	17
48	A Multichip Phase-Leg IGBT Module Using Nanosilver Paste by Pressureless Sintering in Formic Acid Atmosphere. IEEE Transactions on Electron Devices, 2018, 65, 4499-4505.	1.6	17
49	An explanation of sintered silver bonding formation on bare copper substrate in air. Applied Surface Science, 2019, 490, 403-410.	3.1	17
50	Evolution of curvature under thermal cycling in sandwich assembly bonded by sintered nanosilver paste. Soldering and Surface Mount Technology, 2013, 25, 107-116.	0.9	16
51	Multiaxial ratcheting-fatigue interaction on acrylonitrile-butadiene-styrene terpolymer. Polymer Engineering and Science, 2015, 55, 664-671.	1.5	15
52	Electric-current-assisted sintering of nanosilver paste for copper bonding. Journal of Materials Science: Materials in Electronics, 2017, 28, 9155-9166.	1.1	15
53	Magnetic paste as feedstock for additive manufacturing of power magnetics. , 2018, , .		15
54	A Method for Improving the Thermal Shock Fatigue Failure Resistance of IGBT Modules. IEEE Transactions on Power Electronics, 2020, 35, 8532-8539.	5.4	15

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55	Brief review of silver sinter-bonding processing for packaging high-temperature power devices. Chinese Journal of Electrical Engineering, 2020, 6, 25-34.	2.3	15
56	Effect of Silver Flakes in Silver Paste on the Joining Process and Properties of Sandwich Power Modules (IGBTs Chip/Silver Paste/Bare Cu). Journal of Electronic Materials, 2016, 45, 5789-5799.	1.0	14
57	High thermal conductivity diamond-doped silver paste for power electronics packaging. Materials Letters, 2022, 311, 131603.	1.3	14
58	Design and Analysis of a Self-Circulated Oil Cooling System Enclosed in Hollow Shafts for Axial-Flux PMSMs. IEEE Transactions on Vehicular Technology, 2022, 71, 4879-4888.	3.9	14
59	Design and Characterizations of a Planar Multichip Half-Bridge Power Module by Pressureless Sintering of Nanosilver Paste. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2019, 7, 1627-1636.	3.7	13
60	Reducing Migration of Sintered Ag for Power Devices Operating at High Temperature. IEEE Transactions on Power Electronics, 2020, 35, 12646-12650.	5.4	13
61	Die Bonding of High Power 808 nm Laser Diodes With Nanosilver Paste. Journal of Electronic Packaging, Transactions of the ASME, 2012, 134, .	1.2	12
62	Roles of palladium particles in enhancing the electrochemical migration resistance of sintered nano-silver paste as a bonding material. Materials Letters, 2017, 206, 1-4.	1.3	12
63	Electromigration behavior of Cu/Sn3.0Ag0.5Cu/Cu ball grid array solder joints. Journal of Materials Science: Materials in Electronics, 2019, 30, 6224-6233.	1.1	12
64	Continuously Variable Multi-Permeability Inductor for Improving the Efficiency of High-Frequency DCâ€“DC Converter. IEEE Transactions on Power Electronics, 2020, 35, 826-834.	5.4	12
65	Pressureless sintering multi-scale Ag paste by a commercial vacuum reflowing furnace for massive production of power modules. Journal of Materials Science: Materials in Electronics, 2019, 30, 9634-9641.	1.1	11
66	Bending ratcheting behavior of pressurized straight Z2CND18.12N stainless steel pipe. Structural Engineering and Mechanics, 2014, 52, 1135-1156.	1.0	11
67	Degradation of high power single emitter laser modules using nanosilver paste in continuous pulse conditions. Microelectronics Reliability, 2015, 55, 2532-2541.	0.9	10
68	Additive manufacturing of toroid inductor for power electronics applications. , 2016, , .		10
69	A Double-Sided Bidirectional Power Module With Low Heat Concentration and Low Thermomechanical Stress. IEEE Transactions on Power Electronics, 2021, 36, 9763-9766.	5.4	10
70	High-Temperature Characterizations of a Half-Bridge Wire-Bondless SiC MOSFET Module. IEEE Journal of the Electron Devices Society, 2021, 9, 966-971.	1.2	10
71	Migration of Sintered Nanosilver on Alumina and Aluminum Nitride Substrates at High Temperatures in Dry Air for Electronic Packaging. IEEE Transactions on Device and Materials Reliability, 2014, 14, 600-606.	1.5	9
72	Characterizations of Nanosilver Joints by Rapid Sintering at Low Temperature for Power Electronic Packaging. IEEE Transactions on Device and Materials Reliability, 2014, 14, 623-629.	1.5	9

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73	In situ X-ray observation and simulation of ratcheting-fatigue interactions in solder joints. Electronic Materials Letters, 2017, 13, 97-106.	1.0	9
74	Hetero-Magnetic Coupled Inductor (HMCI) for High Frequency Interleaved Multiphase DC/DC Converters. , 2019, , .		9
75	Packaging Design of 15 kV SiC Power Devices With High-Voltage Encapsulation. IEEE Transactions on Dielectrics and Electrical Insulation, 2022, 29, 47-53.	1.8	9
76	Migration of sintered nanosilver die-attach material on alumina substrate at high temperatures. , 2011, , .		8
77	A fast universal power module layout method. , 2015, , .		8
78	Additive Manufacturing of Magnetic Components for Heterogeneous Integration. , 2017, , .		8
79	Die-attach on nickel substrate by pressureless sintering a trimodal silver paste. Materials Letters, 2019, 253, 131-135.	1.3	8
80	A 200ÂÂ°C curable soft magnetic composite with high permeability and low core loss for power applications at >1ÂMHz. Journal of Magnetism and Magnetic Materials, 2021, 535, 168061.	1.0	8
81	Pressureless Sintered-Silver as Die Attachment for bonding Si and SiC Chips on Silver, Gold, Copper, and Nickel Metallization for Power Electronics Packaging: The Practice and Science. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 2645-2655.	3.7	8
82	Temperature-Dependent Dwell-Fatigue Behavior of Nanosilver Sintered Lap Shear Joint. Journal of Electronic Packaging, Transactions of the ASME, 2016, 138, .	1.2	7
83	A Multichip Phase-Leg IGBT Module Bonded by Pressureless Sintering of Nanosilver Paste. IEEE Transactions on Device and Materials Reliability, 2017, 17, 146-156.	1.5	7
84	Additive Manufacturing of Spiral Windings for a Pot-Core Constant-Flux Inductor. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 618-625.	3.7	7
85	Modeling of Intergranular Mechanical Fatigue of a Sintered Nanosilver Die Attachment for Power Electronics. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2020, 10, 982-989.	1.4	7
86	Large-Area Substrate Bonding With Single-Printing Silver Paste Sintering for Power Modules. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2021, 11, 11-18.	1.4	6
87	Large-Area Bonding by Sintering of a Resin-Free Nanosilver Paste at Ultralow Temperature of 180 Â°C. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2022, 12, 707-710.	1.4	6
88	An improved way to measure thermal impedance of insulated gate bipolar transistor (IGBT) module for power electronic packaging. , 2013, , .		5
89	Packaging of high-temperature planar power modules interconnected by low-temperature sintering of nanosilver paste. , 2014, , .		5
90	Experimental study on multi-step creep properties of rat skins. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 46, 49-58.	1.5	5

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91	A hybrid genetic algorithm for automatic layout design of power module. , 2017, , .		5
92	A (Permalloy + NiZn Ferrite) Moldable Magnetic Composite for Heterogeneous Integration of Power Electronics. Materials, 2019, 12, 1999.	1.3	5
93	Bonding performance of sintered nanosilver joints on bare copper substrates with different grain structures. Journal of Materials Science: Materials in Electronics, 2019, 30, 12860-12868.	1.1	5
94	Efficient layout design automation for multiâ€chip SiC modules targeting small footprint and low parasitic. IET Power Electronics, 2020, 13, 2069-2076.	1.5	5
95	Low-temperature Silver Sintering for Bonding 3D Power Modules. , 2019, , .		4
96	A Novel Hermetic Sealing Method for the Metal Package Based on Electric-Current-Assisted Sintering of Silver Paste. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2021, 11, 872-874.	1.4	4
97	â€œMigration of Sintered Nanosilver Die-attach Material on Alumina Substrate at High Temperaturesâ€. Additional Conferences (Device Packaging HiTEC HiTEN & CICMT), 2010, 2010, 000026-000031.	0.2	4
98	Processing and Characterization of Die-attach on Uncoated Copper by Pressure-less Silver Sintering and Low-pressure-assisted Copper Sintering. , 2019, , .		3
99	Tailoring a Silver Paste for Additive Manufacturing of Co-Fired Ferrite Magnetic Components. Materials, 2019, 12, 817.	1.3	3
100	Doping low-cost SiOx (1.2<x<1.6) nanoparticles to inhibit electrochemical migration of sintered silver at high temperatures. Journal of Alloys and Compounds, 2020, 830, 154587.	2.8	3
101	A SVPWM algorithm based on four-switch three-phase inverter for PMSM under the imbalance of bus capacitor voltage. Journal of Power Electronics, 2021, 21, 1812-1822.	0.9	3
102	Reliable Aluminum Wire-Bonded SiC/Si Diodes With Laminated Al/Cu Stress Buffers. IEEE Transactions on Power Electronics, 2022, 37, 10149-10153.	5.4	3
103	A Reliable Way to Improve Electrochemical Migration (ECM) Resistance of Nanosilver Paste as a Bonding Material. Applied Sciences (Switzerland), 2022, 12, 4748.	1.3	3
104	Bonding 1200 V, 150 A IGBT chips (13.5 mm × 13.5 mm) with DBC substrate by pressureless sintering nanosilver paste for power electronic packaging. , 2014, , .		2
105	Effect of as-pinted bondline thickness on assembling high power laser diodes by sintering of nanosilver paste. , 2016, , .		2
106	Reliability of pressureless sintered nanosilver for attaching IGBT devices. , 2016, , .		2
107	A phase-leg IGBT module using DBC substrate without Ag finish by pressureless sintering of nanosilver paste. , 2017, , .		2
108	Magnetic properties of FeNi₃/NiZn-ferrite nanocomposite prepared by hydrothermal method for application in high frequency. Ferroelectrics, 2017, 521, 116-125.	0.3	2

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109	A Reliable Double-Sided 1200-V/600-A Multichip Half-bridge Insulated Gate Bipolar Transistor (IGBT) Module with High Power Density. , 2018, , .		2
110	Top die surface reprocessing for planar package with double sided cooling. , 2018, , .		2
111	Die-attach on Copper by Pressureless Silver Sintering in Formic Acid. , 2019, , .		2
112	A Way to Reduce Leakage Current and Improve Reliability of Wire-Bonds for 300-A Multichip SiC Hybrid Modules. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 4887-4896.	3.7	2
113	Effects of DC bias and spacing on migration of sintered nanosilver at high temperatures for power electronic packaging. , 2013, , .		1
114	Silver paste pressureless sintering on bare copper substrates for large area chip bonding in high power electronic packaging. , 2015, , .		1
115	Application of Nano Silver sintering technique on the chip bonding for flip-chip and vertical light emitting diodes. , 2016, , .		1
116	Packaging IGBT modules by rapid sintering of nanosilver paste in a current way. , 2017, , .		1
117	Low temperature sintering of nanosilver paste for super-large-area substrate bonding. , 2017, , .		1
118	Design and development of power module co-packaged with SiC GTO and SiC PiN. , 2018, , .		1
119	Heteromagnetic Swinging Inductor and Its Application for Power Factor Correction Converters. IEEE Transactions on Industry Applications, 2020, 56, 5292-5298.	3.3	1
120	Evolution of curvature under thermal cycling in sandwich assembly bonded by sintered nano-silver Paste. , 2012, , .		0
121	Low-temperature sintering of nanoscale silver paste for double-sided attaching 9×9 mm² chip. , 2012, , .		0
122	Measurements of electrical resistance and temperature distribution during current assisted sintering of nanosilver die-attach material. , 2014, , .		0
123	Electrochemical migration of sintered nanosilver under chloride-containing thin electrolyte layer for power electronic packaging. Corrosion, 2015, , .	0.5	0
124	Double-sided joining IGBT devices by pressureless sintering of nanosilver paste. , 2016, , .		0
125	A high power density multichip phase-leg IGBT module with void-free die attachment using nanosilver paste. , 2017, , .		0
126	A Reliable Double-Sided 1200-V/600-A Multichip Half-bridge Insulated Gate Bipolar Transistor (IGBT) Module with High Power Density. , 2018, , .		0

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127	Effects of MnZn ferrite doping on magnetic and electrical properties of NiZnCu ferrite toroid cores for power applications. , 2018, , .		0
128	An online-sintering approach for bonding high-power devices using nanosilver paste. , 2018, , .		0
129	Study on Bonding Strength of Sintered Nano-silver Joints on Bare Copper Substrates with Different Grain Sizes. , 2018, , .		0
130	How to pressureless sinter-bond power chips with bare copper substrates using nanosilver paste?. , 2019, , .		0
131	Ratcheting Behavior of Sintered Copper Joints for Electronic Packaging. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2021, 11, 983-989.	1.4	0