

# Yun-Hui Mei

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5510311/publications.pdf>

Version: 2024-02-01

131  
papers

2,206  
citations

186209

28  
h-index

302012

39  
g-index

133  
all docs

133  
docs citations

133  
times ranked

979  
citing authors

#	ARTICLE	IF	CITATIONS
1	High thermal conductivity diamond-doped silver paste for power electronics packaging. <i>Materials Letters</i> , 2022, 311, 131603.	1.3	14
2	Packaging Design of 15 kV SiC Power Devices With High-Voltage Encapsulation. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2022, 29, 47-53.	1.8	9
3	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. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2022, 10, 2645-2655.	3.7	8
4	Design and Analysis of a Self-Circulated Oil Cooling System Enclosed in Hollow Shafts for Axial-Flux PMSMs. <i>IEEE Transactions on Vehicular Technology</i> , 2022, 71, 4879-4888.	3.9	14
5	Large-Area Bonding by Sintering of a Resin-Free Nanosilver Paste at Ultralow Temperature of 180 Å°C. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2022, 12, 707-710.	1.4	6
6	Reliable Aluminum Wire-Bonded SiC/Si Diodes With Laminated Al/Cu Stress Buffers. <i>IEEE Transactions on Power Electronics</i> , 2022, 37, 10149-10153.	5.4	3
7	A Reliable Way to Improve Electrochemical Migration (ECM) Resistance of Nanosilver Paste as a Bonding Material. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 4748.	1.3	3
8	A Way to Reduce Leakage Current and Improve Reliability of Wire-Bonds for 300-A Multichip SiC Hybrid Modules. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2021, 9, 4887-4896.	3.7	2
9	A Novel Hermetic Sealing Method for the Metal Package Based on Electric-Current-Assisted Sintering of Silver Paste. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2021, 11, 872-874.	1.4	4
10	Ratcheting Behavior of Sintered Copper Joints for Electronic Packaging. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2021, 11, 983-989.	1.4	0
11	A Double-Sided Bidirectional Power Module With Low Heat Concentration and Low Thermomechanical Stress. <i>IEEE Transactions on Power Electronics</i> , 2021, 36, 9763-9766.	5.4	10
12	A 200Å°C curable soft magnetic composite with high permeability and low core loss for power applications at >1ÅMHz. <i>Journal of Magnetism and Magnetic Materials</i> , 2021, 535, 168061.	1.0	8
13	Pressureless Sintered-Silver Die-Attach at 180 Å°C for Power Electronics Packaging. <i>IEEE Transactions on Power Electronics</i> , 2021, 36, 12141-12145.	5.4	23
14	Large-Area Substrate Bonding With Single-Printing Silver Paste Sintering for Power Modules. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2021, 11, 11-18.	1.4	6
15	High-Temperature Characterizations of a Half-Bridge Wire-Bondless SiC MOSFET Module. <i>IEEE Journal of the Electron Devices Society</i> , 2021, 9, 966-971.	1.2	10
16	A SVPWM algorithm based on four-switch three-phase inverter for PMSM under the imbalance of bus capacitor voltage. <i>Journal of Power Electronics</i> , 2021, 21, 1812-1822.	0.9	3
17	Continuously Variable Multi-Permeability Inductor for Improving the Efficiency of High-Frequency DC-DC Converter. <i>IEEE Transactions on Power Electronics</i> , 2020, 35, 826-834.	5.4	12
18	Additive Manufacturing of Spiral Windings for a Pot-Core Constant-Flux Inductor. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2020, 8, 618-625.	3.7	7

#	ARTICLE	IF	CITATIONS
19	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
20	Efficient layout design automation for multi-chip SiC modules targeting small footprint and low parasitic. IET Power Electronics, 2020, 13, 2069-2076.	1.5	5
21	Heteromagnetic Swinging Inductor and Its Application for Power Factor Correction Converters. IEEE Transactions on Industry Applications, 2020, 56, 5292-5298.	3.3	1
22	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
23	Reducing Migration of Sintered Ag for Power Devices Operating at High Temperature. IEEE Transactions on Power Electronics, 2020, 35, 12646-12650.	5.4	13
24	Doping low-cost SiO <sub>x</sub> (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
25	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
26	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
27	Processing and Characterization of Die-attach on Uncoated Copper by Pressure-less Silver Sintering and Low-pressure-assisted Copper Sintering. , 2019, , .		3
28	A (Permalloy + NiZn Ferrite) Moldable Magnetic Composite for Heterogeneous Integration of Power Electronics. Materials, 2019, 12, 1999.	1.3	5
29	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
30	Die-attach on Copper by Pressureless Silver Sintering in Formic Acid. , 2019, , .		2
31	Low-temperature Silver Sintering for Bonding 3D Power Modules. , 2019, , .		4
32	Pressureless Silver Sintering on Nickel for Power Module Packaging. IEEE Transactions on Power Electronics, 2019, 34, 7121-7125.	5.4	22
33	An explanation of sintered silver bonding formation on bare copper substrate in air. Applied Surface Science, 2019, 490, 403-410.	3.1	17
34	Die-attach on nickel substrate by pressureless sintering a trimodal silver paste. Materials Letters, 2019, 253, 131-135.	1.3	8
35	Hetero-Magnetic Coupled Inductor (HMCI) for High Frequency Interleaved Multiphase DC/DC Converters. , 2019, , .		9
36	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

#	ARTICLE	IF	CITATIONS
37	Tailoring a Silver Paste for Additive Manufacturing of Co-Fired Ferrite Magnetic Components. <i>Materials</i> , 2019, 12, 817.	1.3	3
38	Pressureless sintering multi-scale Ag paste by a commercial vacuum reflowing furnace for massive production of power modules. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 9634-9641.	1.1	11
39	Electromigration behavior of Cu/Sn3.0Ag0.5Cu/Cu ball grid array solder joints. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 6224-6233.	1.1	12
40	How to pressureless sinter-bond power chips with bare copper substrates using nanosilver paste?. , 2019, , .		0
41	Pressureless sintering of nanosilver paste as die attachment on substrates with ENIG finish for semiconductor applications. <i>Journal of Alloys and Compounds</i> , 2019, 777, 578-585.	2.8	38
42	Rapid sintering of nano-Ag paste at low current to bond large area (>100 $\mu$ m <sup>2</sup> ) power chips for electronics packaging. <i>Journal of Materials Processing Technology</i> , 2018, 255, 644-649.	3.1	41
43	Ferrite Paste Cured With Ultraviolet Light for Additive Manufacturing of Magnetic Components for Power Electronics. <i>IEEE Magnetics Letters</i> , 2018, 9, 1-5.	0.6	29
44	Effects of sintering temperature on properties of toroid cores using NiZnCu ferrites for power applications at >1 $\mu$ MHz. <i>Journal of Magnetism and Magnetic Materials</i> , 2018, 454, 6-12.	1.0	17
45	Design and Additive Manufacturing of Multipermeability Magnetic Cores. <i>IEEE Transactions on Industry Applications</i> , 2018, 54, 3541-3547.	3.3	30
46	Characterizations of a Proposed 3300-V Press-Pack IGBT Module Using Nanosilver Paste for High-Voltage Applications. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2018, 6, 2245-2253.	3.7	17
47	Low-Pressure-Assisted Large-Area (>800 mm <sup>2</sup> ) Sintered-Silver Bonding for High-Power Electronic Packaging. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2018, 8, 202-209.	1.4	18
48	A novel multiscale silver paste for die bonding on bare copper by low-temperature pressure-free sintering in air. <i>Materials and Design</i> , 2018, 140, 64-72.	3.3	70
49	A Reliable Double-Sided 1200-V/600-A Multichip Half-bridge Insulated Gate Bipolar Transistor (IGBT) Module with High Power Density. , 2018, , .		2
50	A Reliable Double-Sided 1200-V/600-A Multichip Half-bridge Insulated Gate Bipolar Transistor (IGBT) Module with High Power Density. , 2018, , .		0
51	Effects of MnZn ferrite doping on magnetic and electrical properties of NiZnCu ferrite toroid cores for power applications. , 2018, , .		0
52	A Multichip Phase-Leg IGBT Module Using Nanosilver Paste by Pressureless Sintering in Formic Acid Atmosphere. <i>IEEE Transactions on Electron Devices</i> , 2018, 65, 4499-4505.	1.6	17
53	An online-sintering approach for bonding high-power devices using nanosilver paste. , 2018, , .		0
54	Study on Bonding Strength of Sintered Nano-silver Joints on Bare Copper Substrates with Different Grain Sizes. , 2018, , .		0

#	ARTICLE	IF	CITATIONS
55	Design and development of power module co-packaged with SiC GTO and SiC PiN. , 2018, , .		1
56	Magnetic paste as feedstock for additive manufacturing of power magnetics. , 2018, , .		15
57	Top die surface reprocessing for planar package with double sided cooling. , 2018, , .		2
58	How to determine surface roughness of copper substrate for robust pressureless sintered silver in air. Materials Letters, 2018, 228, 327-330.	1.3	23
59	In situ X-ray observation and simulation of ratcheting-fatigue interactions in solder joints. Electronic Materials Letters, 2017, 13, 97-106.	1.0	9
60	Electric-current-assisted sintering of nanosilver paste for copper bonding. Journal of Materials Science: Materials in Electronics, 2017, 28, 9155-9166.	1.1	15
61	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
62	A phase-leg IGBT module using DBC substrate without Ag finish by pressureless sintering of nanosilver paste. , 2017, , .		2
63	Packaging IGBT modules by rapid sintering of nanosilver paste in a current way. , 2017, , .		1
64	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
65	Additive Manufacturing of Magnetic Components for Heterogeneous Integration. , 2017, , .		8
66	Additive Manufacturing of Toroid Inductor for Power Electronics Applications. IEEE Transactions on Industry Applications, 2017, 53, 5709-5714.	3.3	39
67	Magnetic properties of FeNi <sub>3</sub> /NiZn-ferrite nanocomposite prepared by hydrothermal method for application in high frequency. Ferroelectrics, 2017, 521, 116-125.	0.3	2
68	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
69	A high power density multichip phase-leg IGBT module with void-free die attachment using nanosilver paste. , 2017, , .		0
70	Low temperature sintering of nanosilver paste for super-large-area substrate bonding. , 2017, , .		1
71	A hybrid genetic algorithm for automatic layout design of power module. , 2017, , .		5
72	Characterizations of Rapid Sintered Nanosilver Joint for Attaching Power Chips. Materials, 2016, 9, 564.	1.3	21

#	ARTICLE	IF	CITATIONS
73	Temperature-Dependent Dwell-Fatigue Behavior of Nanosilver Sintered Lap Shear Joint. Journal of Electronic Packaging, Transactions of the ASME, 2016, 138, .	1.2	7
74	Additive manufacturing of toroid inductor for power electronics applications. , 2016, , .		10
75	Effect of as-pinted bondline thickness on assembling high power laser diodes by sintering of nanosilver paste. , 2016, , .		2
76	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
77	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
78	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
79	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
80	Application of Nano Silver sintering technique on the chip bonding for flip-chip and vertical light emitting diodes. , 2016, , .		1
81	Double-sided joining IGBT devices by pressureless sintering of nanosilver paste. , 2016, , .		0
82	Reliability of pressureless sintered nanosilver for attaching IGBT devices. , 2016, , .		2
83	A fast universal power module layout method. , 2015, , .		8
84	Multiaxial ratcheting-fatigue interaction on acrylonitrile-butadiene-styrene terpolymer. Polymer Engineering and Science, 2015, 55, 664-671.	1.5	15
85	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
86	Study on high temperature bonding reliability of sintered nano-silver joint on bare copper plate. Microelectronics Reliability, 2015, 55, 2524-2531.	0.9	58
87	Parametric Study on Pressureless Sintering of Nanosilver Paste to Bond Large-Area (â‰¥100Âmm <sup>2</sup> ) Power Chips at Low Temperatures for Electronic Packaging. Journal of Electronic Materials, 2015, 44, 3973-3984.	1.0	34
88	Electrochemical migration of sintered nanosilver under chloride-containing thin electrolyte layer for power electronic packaging. Corrosion, 2015, , .	0.5	0
89	Degradation of high power single emitter laser modules using nanosilver paste in continuous pulse conditions. Microelectronics Reliability, 2015, 55, 2532-2541.	0.9	10
90	Silver paste pressureless sintering on bare copper substrates for large area chip bonding in high power electronic packaging. , 2015, , .		1

#	ARTICLE	IF	CITATIONS
91	Electrical method to measure the transient thermal impedance of insulated gate bipolar transistor module. IET Power Electronics, 2015, 8, 1009-1016.	1.5	22
92	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
93	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
94	Dependence of electrochemical migration of sintered nanosilver on chloride. Materials Chemistry and Physics, 2015, 151, 18-21.	2.0	29
95	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
96	Bonding 1200 V, 150 A IGBT chips (13.5 mm $\times$ 13.5 mm) with DBC substrate by pressureless sintering nanosilver paste for power electronic packaging. , 2014, , .		2
97	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
98	Measurements of electrical resistance and temperature distribution during current assisted sintering of nanosilver die-attach material. , 2014, , .		0
99	Packaging of high-temperature planar power modules interconnected by low-temperature sintering of nanosilver paste. , 2014, , .		5
100	Pressureless sintering of nanosilver paste at low temperature to join large area ( $\approx 100\text{mm}^2$ ) power chips for electronic packaging. Materials Letters, 2014, 128, 42-45.	1.3	99
101	Applying viscoplastic constitutive models to predict ratcheting behavior of sintered nanosilver lap-shear joint. Mechanics of Materials, 2014, 72, 61-71.	1.7	58
102	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
103	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
104	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
105	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
106	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
107	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
108	Bending ratcheting behavior of pressurized straight Z2CND18.12N stainless steel pipe. Structural Engineering and Mechanics, 2014, 52, 1135-1156.	1.0	11

#	ARTICLE	IF	CITATIONS
109	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
110	Simplification of Low-Temperature Sintering Nanosilver for Power Electronics Packaging. Journal of Electronic Materials, 2013, 42, 1209-1218.	1.0	45
111	An improved way to measure thermal impedance of insulated gate bipolar transistor (IGBT) module for power electronic packaging. , 2013, , .		5
112	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
113	Ratcheting behavior of sandwiched assembly joined by sintered nanosilver for power electronics packaging. Microelectronics Reliability, 2013, 53, 645-651.	0.9	24
114	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
115	Effects of DC bias and spacing on migration of sintered nanosilver at high temperatures for power electronic packaging. , 2013, , .		1
116	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
117	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
118	Mechanical property evaluation of nano-silver paste sintered joint using lap-shear test. Soldering and Surface Mount Technology, 2012, 24, 120-126.	0.9	31
119	Evolution of curvature under thermal cycling in sandwich assembly bonded by sintered nano-silver Paste. , 2012, , .		0
120	Low-temperature sintering of nanoscale silver paste for double-sided attaching 9&#x00D7;9 mm<sup>2</sup> chip. , 2012, , .		0
121	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
122	Transient Thermal Impedance Measurements on Low-Temperature-Sintered Nanoscale Silver Joints. Journal of Electronic Materials, 2012, 41, 3152-3160.	1.0	30
123	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
124	High-Temperature Creep Behavior of Low-Temperature-Sintered Nano-Silver Paste Films. Journal of Electronic Materials, 2012, 41, 782-790.	1.0	50
125	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
126	Migration of sintered nanosilver die-attach material on alumina substrate at high temperatures. , 2011, , .		8



#	ARTICLE	IF	CITATIONS
127	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
128	Migration of Sintered Nanosilver Die-Attach Material on Alumina Substrate Between 250 $^{\circ}\text{C}$ and 400 $^{\circ}\text{C}$ in Dry Air. IEEE Transactions on Device and Materials Reliability, 2011, 11, 316-322.	1.5	51
129	Investigation of Post-Etch Copper Residue on Direct Bonded Copper (DBC) Substrates. Journal of Electronic Materials, 2011, 40, 2119-2125.	1.0	31
130	Migration of Sintered Nanosilver Die-attach Material on Alumina Substrate at High Temperatures. Additional Conferences (Device Packaging HiTEC HiTEN & CICMT), 2010, 2010, 000026-000031.	0.2	4
131	Hygrothermal Effects on the Tensile Properties of Anisotropic Conductive Films. Journal of Electronic Materials, 2009, 38, 2415-2426.	1.0	20