

Kyoung-Sik Moon

List of Publications by Citations

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150
papers

5,825
citations

38
h-index

74
g-index

199
ext. papers

6,636
ext. citations

7.4
avg, IF

5.75
L-index

#	Paper	IF	Citations
150	Materials science. Electronics without lead. <i>Science</i> , 2005 , 308, 1419-20	33.3	381
149	Large-scale production of two-dimensional nanosheets. <i>Journal of Materials Chemistry</i> , 2012 , 22, 13494		306
148	Thermal behavior of silver nanoparticles for low-temperature interconnect applications. <i>Journal of Electronic Materials</i> , 2005 , 34, 168-175	1.9	300
147	Glass transition and relaxation behavior of epoxy nanocomposites. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2004 , 42, 3849-3858	2.6	280
146	Vertically Aligned and Interconnected Graphene Networks for High Thermal Conductivity of Epoxy Composites with Ultralow Loading. <i>Chemistry of Materials</i> , 2016 , 28, 6096-6104	9.6	246
145	Thermo-mechanical Characterization of Metal/Polymer Composite Filaments and Printing Parameter Study for Fused Deposition Modeling in the 3D Printing Process. <i>Journal of Electronic Materials</i> , 2015 , 44, 771-777	1.9	240
144	Surface Functionalized Silver Nanoparticles for Ultrahigh Conductive Polymer Composites. <i>Chemistry of Materials</i> , 2006 , 18, 2969-2973	9.6	230
143	Synthesis and dielectric properties of novel high-K polymer composites containing in-situ formed silver nanoparticles for embedded capacitor applications. <i>Journal of Materials Chemistry</i> , 2006 , 16, 1543		225
142	Exfoliated hexagonal boron nitride-based polymer nanocomposite with enhanced thermal conductivity for electronic encapsulation. <i>Composites Science and Technology</i> , 2014 , 90, 123-128	8.6	220
141	Water-dispersible graphene/polyaniline composites for flexible micro-supercapacitors with high energy densities. <i>Nano Energy</i> , 2015 , 16, 470-478	17.1	134
140	3D porous graphene with ultrahigh surface area for microscale capacitive deionization. <i>Nano Energy</i> , 2015 , 11, 711-718	17.1	130
139	Preparation of highly conductive polymer nanocomposites by low temperature sintering of silver nanoparticles. <i>Journal of Materials Chemistry</i> , 2010 , 20, 2018		123
138	Fast preparation of printable highly conductive polymer nanocomposites by thermal decomposition of silver carboxylate and sintering of silver nanoparticles. <i>ACS Applied Materials & Interfaces</i> , 2010 , 2, 2637-45	9.5	119
137	Mechanistic investigation of the graphene functionalization using p-phenylenediamine and its application for supercapacitors. <i>Nano Energy</i> , 2015 , 17, 160-170	17.1	117
136	Highly Conductive, Flexible, Polyurethane-Based Adhesives for Flexible and Printed Electronics. <i>Advanced Functional Materials</i> , 2013 , 23, 1459-1465	15.6	112
135	Ultrafast, dry microwave synthesis of graphene sheets. <i>Journal of Materials Chemistry</i> , 2010 , 20, 4781		112
134	Controlled Growth of Multilayer, Few-Layer, and Single-Layer Graphene on Metal Substrates. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 5232-5238	3.8	107

133	Synthesis and Thermal and Wetting Properties of Tin/Silver Alloy Nanoparticles for Low Melting Point Lead-Free Solders. <i>Chemistry of Materials</i> , 2007 , 19, 4482-4485	9.6	104
132	Review of Recent Advances in Electrically Conductive Adhesive Materials and Technologies in Electronic Packaging. <i>Journal of Adhesion Science and Technology</i> , 2008 , 22, 1593-1630	2	103
131	Systematic study on structural and electronic properties of diamine/triamine functionalized graphene networks for supercapacitor application. <i>Nano Energy</i> , 2017 , 31, 183-193	17.1	99
130	Flexible micro-supercapacitor based on in-situ assembled graphene on metal template at room temperature. <i>Nano Energy</i> , 2014 , 10, 222-228	17.1	98
129	Conductivity enhancement of nano silver-filled conductive adhesives by particle surface functionalization. <i>Journal of Electronic Materials</i> , 2005 , 34, 1432-1439	1.9	98
128	Variable Frequency Microwave Synthesis of Silver Nanoparticles. <i>Journal of Nanoparticle Research</i> , 2006 , 8, 117-124	2.3	94
127	Silver/polymer nanocomposite as a high-k-polymer matrix for dielectric composites with improved dielectric performance. <i>Journal of Materials Chemistry</i> , 2008 , 18, 4821		93
126	Triethanolamine functionalized graphene-based composites for high performance supercapacitors. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 21789-21796	13	92
125	Molecular Level Study of Graphene Networks Functionalized with Phenylenediamine Monomers for Supercapacitor Electrodes. <i>Chemistry of Materials</i> , 2016 , 28, 9110-9121	9.6	80
124	Rational Design of a Printable, Highly Conductive Silicone-based Electrically Conductive Adhesive for Stretchable Radio-Frequency Antennas. <i>Advanced Functional Materials</i> , 2015 , 25, 464-470	15.6	75
123	The preparation of stable metal nanoparticles on carbon nanotubes whose surfaces were modified during production. <i>Carbon</i> , 2007 , 45, 655-661	10.4	69
122	A novel aluminum-filled composite dielectric for embedded passive applications. <i>IEEE Transactions on Advanced Packaging</i> , 2006 , 29, 295-306		55
121	Molecular engineering of aromatic amine spacers for high-performance graphene-based supercapacitors. <i>Nano Energy</i> , 2016 , 21, 276-294	17.1	54
120	Adherence of self-assembled monolayers on gold and their effects for high-performance anisotropic conductive adhesives. <i>Journal of Electronic Materials</i> , 2005 , 34, 266-271	1.9	54
119	Monolayer-protected silver nano-particle-based anisotropic conductive adhesives: Enhancement of electrical and thermal properties. <i>Journal of Electronic Materials</i> , 2005 , 34, 1573-1578	1.9	50
118	Enhancement of electrical properties of anisotropically conductive adhesive joints via low temperature sintering. <i>Journal of Applied Polymer Science</i> , 2006 , 99, 1665-1673	2.9	47
117	Alternating current line-filter based on electrochemical capacitor utilizing template-patterned graphene. <i>Scientific Reports</i> , 2015 , 5, 10983	4.9	46
116	Synthesis of High-Quality Vertically Aligned Carbon Nanotubes on Bulk Copper Substrate for Thermal Management. <i>IEEE Transactions on Advanced Packaging</i> , 2010 , 33, 370-376		42

115	Self-assembled monolayer-assisted chemical transfer of in situ functionalized carbon nanotubes. <i>Journal of the American Chemical Society</i> , 2008 , 130, 9636-7	16.4	42
114	Laser-induced and KOH-activated 3D graphene: A flexible activated electrode fabricated via direct laser writing for in-plane micro-supercapacitors. <i>Chemical Engineering Journal</i> , 2020 , 393, 124672	14.7	39
113	Low temperature carbon nanotube film transfer via conductive polymer composites. <i>Nanotechnology</i> , 2007 , 18, 125203	3.4	39
112	Ultrafast Molecular Stitching of Graphene Films at the Ethanol/Water Interface for High Volumetric Capacitance. <i>Nano Letters</i> , 2017 , 17, 1365-1370	11.5	38
111	Novel curing agent for lead-free electronics: Amino acid. <i>Journal of Polymer Science Part A</i> , 2006 , 44, 1020-1027	2.5	38
110	Sulfonated polyaniline decorated graphene nanocomposites as supercapacitor electrodes. <i>Materials Letters</i> , 2016 , 166, 12-15	3.3	33
109	Electrical property improvement of electrically conductive adhesives through in-situ replacement by short-chain difunctional acids. <i>IEEE Transactions on Components and Packaging Technologies</i> , 2006 , 29, 173-178		31
108	A strategy for design of non-percolative composites with stable giant dielectric constants and high energy densities. <i>Nano Energy</i> , 2019 , 58, 419-426	17.1	29
107	Molecular dynamics study of nanosilver particles for low-temperature lead-free interconnect applications. <i>Journal of Electronic Materials</i> , 2005 , 34, 40-45	1.9	28
106	Effect of polymer binders on graphene-based free-standing electrodes for supercapacitors. <i>Electrochimica Acta</i> , 2018 , 267, 213-221	6.7	25
105	Molecular dynamics study on the coalescence of Cu nanoparticles and their deposition on the Cu substrate. <i>Journal of Electronic Materials</i> , 2004 , 33, 1326-1330	1.9	25
104	The conduction development mechanism of silicone-based electrically conductive adhesives. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 4368	7.1	24
103	Enhancement of Electrical Properties of Electrically Conductive Adhesives (ECAs) by Using Novel Aldehydes. <i>IEEE Transactions on Components and Packaging Technologies</i> , 2006 , 29, 758-763		24
102	A novel approach to stabilize contact resistance of electrically conductive adhesives on lead-free alloy surfaces. <i>Journal of Electronic Materials</i> , 2004 , 33, 106-113	1.9	23
101	Particle size effect in porous film electrodes of ligand-modified graphene for enhanced supercapacitor performance. <i>Carbon</i> , 2017 , 119, 296-304	10.4	20
100	Microscopic vertical orientation of nano-interspaced graphene architectures in deposit films as electrodes for enhanced supercapacitor performance. <i>Nano Energy</i> , 2017 , 32, 88-95	17.1	20
99	The Standardization of Printable Materials and Direct Writing Systems. <i>Journal of Electronic Packaging, Transactions of the ASME</i> , 2013 , 135,	2	18
98	Improved stability of contact resistance of low melting point alloy incorporated isotropically conductive adhesives. <i>IEEE Transactions on Components and Packaging Technologies</i> , 2003 , 26, 375-381		18

97	Influence of flux on wetting behavior of lead-free solder balls during the infrared-reflow process. <i>Journal of Electronic Materials</i> , 2005 , 34, 994-1001	1.9	18
96	Stabilizing contact resistance of isotropically conductive adhesives on various metal surfaces by incorporating sacrificial anode materials. <i>Journal of Electronic Materials</i> , 2004 , 33, 1381-1388	1.9	17
95	Recent Developments in Design and Fabrication of Graphene-Based Interdigital Micro-Supercapacitors for Miniaturized Energy Storage Devices. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2016 , 6, 1752-1765	1.7	16
94	High Refractive Index and Transparent Nanocomposites as Encapsulant for High Brightness LED Packaging. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2014 , 4, 1125-1130	1.7	15
93	Preparation of Water-Based Carbon Nanotube Inks and Application in the Inkjet Printing of Carbon Nanotube Gas Sensors. <i>Journal of Electronic Packaging, Transactions of the ASME</i> , 2013 , 135,	2	15
92	Epoxy/h-BN composites for thermally conductive underfill material 2009 ,		14
91	Optimization of Epoxy-Barium Titanate Nanocomposites for High Performance Embedded Capacitor Components. <i>IEEE Transactions on Components and Packaging Technologies</i> , 2007 , 30, 248-253		14
90	Lead-free interconnect technique by using variable frequency microwave. <i>Journal of Electronic Materials</i> , 2005 , 34, 1081-1088	1.9	14
89	Controlled synthesis and evaluation of cyanate ester/epoxy copolymer system for high temperature molding compounds. <i>Journal of Polymer Science Part A</i> , 2018 , 56, 1337-1345	2.5	13
88	Laser-induced nitrogen-self-doped graphite nanofibers from cyanate ester for on-chip micro-supercapacitors. <i>Chemical Engineering Journal</i> , 2021 , 404, 126375	14.7	13
87	Magnetic Nanocomposite for Potential Ultrahigh Frequency Microelectronic Application. <i>Journal of Electronic Materials</i> , 2007 , 36, 593-597	1.9	12
86	Reliability improvement of conductive adhesives on tin (Sn) surfaces. <i>Journal of Adhesion Science and Technology</i> , 2005 , 19, 1427-1444	2	12
85	A sustainable reduction route of graphene oxide by industrial waste lignin for versatile applications in energy and environment. <i>Journal of Cleaner Production</i> , 2020 , 268, 122019	10.3	11
84	Highly Reliable Copper-Based Conductive Adhesives Using an Amine Curing Agent for in Situ Oxidation/Corrosion Prevention. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2011 , 1, 25-32	1.7	11
83	Synthesis of Ag-Cu alloy nanoparticles for lead-free interconnect materials		11
82	Rheological properties and screen printability of UV curable conductive ink for flexible and washable E-textiles. <i>Journal of Materials Science and Technology</i> , 2021 , 67, 145-155	9.1	11
81	Thermal Conductivity Enhancement of Epoxy Composites by Interfacial Covalent Bonding for Underfill and Thermal Interfacial Materials in Cu/Low-K Application. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2012 , 2, 1571-1579	1.7	10
80	High thermal conductive underfill materials for flip-chip application 2008 ,		10

79	Tin/Indium nanobundle formation from aggregation or growth of nanoparticles. <i>Journal of Nanoparticle Research</i> , 2008 , 10, 41-46	2.3	10
78	Atomic Modulation of 3D Conductive Frameworks Boost Performance of MnO for Coaxial Fiber-Shaped Supercapacitors. <i>Nano-Micro Letters</i> , 2020 , 13, 4	19.5	10
77	Processing and characterization of silver-filled conductive polysulfide sealants for aerospace applications. <i>Soft Matter</i> , 2018 , 14, 9036-9043	3.6	10
76	Self-Patterning of Silica/Epoxy Nanocomposite Underfill by Tailored Hydrophilic-Superhydrophobic Surfaces for 3D Integrated Circuit (IC) Stacking. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 8437-8442	9.5	9
75	Flexible and electrically conductive composites based on 3D hierarchical silver dendrites. <i>Soft Matter</i> , 2020 , 16, 6765-6772	3.6	9
74	Hydrothermal synthesis of BaTiO ₃ nanowires for high energy density nanocomposite capacitors. <i>Journal of Materials Science</i> , 2020 , 55, 6903-6914	4.3	9
73	Scalable Preparation of Fully Coated [email[protected]] ₃ [email[protected]] Particles via Poly(vinylpyrrolidone) Assistance for High-k Applications. <i>ACS Applied Nano Materials</i> , 2018 , 1, 1396-1405	5.6	9
72	Double-Sided Transferred Carbon Nanotube Arrays for Improved Thermal Interface Materials. <i>Journal of Electronic Packaging, Transactions of the ASME</i> , 2015 , 137,	2	9
71	Greatly enhanced power conversion efficiency of hole-transport-layer-free perovskite solar cell via coherent interfaces of perovskite and carbon layers. <i>Nano Energy</i> , 2020 , 77, 105110	17.1	9
70	Conformal Pad-Printing Electrically Conductive Composites onto Thermoplastic Hemispheres: Toward Sustainable Fabrication of 3-Cents Volumetric Electrically Small Antennas. <i>PLoS ONE</i> , 2015 , 10, e0136939	3.7	8
69	Ferrite Polymer Composite for Improving the Electromagnetic Compatibility of Semiconductor Packaging. <i>Journal of Electronic Materials</i> , 2007 , 36, 1711-1718	1.9	8
68	Assembling Carbon Nanotube Bundles Using Transfer Process for Fine-Pitch Electrical Interconnect Applications 2007 ,		8
67	RGO-templated lignin-derived porous carbon materials for renewable high-performance supercapacitors. <i>Electrochimica Acta</i> , 2020 , 353, 136482	6.7	8
66	Enhanced dielectric constant and energy density in a BaTiO ₃ /polymer-matrix composite sponge. <i>Communications Materials</i> , 2020 , 1,	6	8
65	Excellent high-temperature piezoelectric energy harvesting properties in flexible polyimide/3D PbTiO ₃ flower composites. <i>Nano Energy</i> , 2021 , 82, 105778	17.1	8
64	Polyimide incorporated cyanate ester/epoxy copolymers for high-temperature molding compounds. <i>Journal of Polymer Science Part A</i> , 2018 , 56, 2412-2421	2.5	8
63	Capacitance enhancement by electrochemically active benzene derivatives for graphene-based supercapacitors. <i>RSC Advances</i> , 2015 , 5, 84113-84118	3.7	7
62	Three-dimensional graphene-based composite for flexible electronic applications 2015 ,		7

61	Stretchable and Electrically Conductive Composites Fabricated from Polyurethane and Silver Nano/Microstructures 2017,		7
60	Epoxy/Cyanate Ester Copolymer Material for Molding Compounds in High-Temperature Operations 2017,		7
59	Single/few-layer boron nitride-based nanocomposites for high thermal conductivity underfills 2012		7
58	Low Temperature Carbon Nanotube Film Transfer via Conductive Adhesives 2007,		7
57	A novel flower-like architecture comprised of 3D interconnected Co ₃ Al-Ox/Sy decorated lignosulfonate-derived carbon nanosheets for flexible supercapacitors and electrocatalytic water splitting. <i>Carbon</i> , 2021 , 184, 386-399	10.4	7
56	Systematic evaluation of cyanate ester/ epoxidized cresol novolac copolymer resin system for high temperature power electronic packaging applications. <i>Polymer</i> , 2020 , 195, 122454	3.9	6
55	Highly Conductive Polyurethane/Polyaniline-Based Composites for Wearable Electronic Applications 2016,		6
54	Enhanced thermal transport of hexagonal boron nitride filled polymer composite by magnetic field-assisted alignment 2013,		6
53	Melt Processable Novolac Cyanate Ester/Biphenyl Epoxy Copolymer Series with Ultrahigh Glass-Transition Temperature. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 15551-15562	9.5	6
52	Fabrication of stretchable and conductive polymer nanocomposites based on interconnected graphene aerogel. <i>Composites Science and Technology</i> , 2020 , 200, 108430	8.6	5
51	Stretchable, Printable and Electrically Conductive Composites for Wearable RF Antennas 2018,		5
50	Solution-processed flexible solid-state micro-supercapacitors for on-chip energy storage devices 2015,		5
49	High-k Polymer Nanocomposites as Gate Dielectrics for Organic Electronics Applications 2007,		5
48	Wafer bonding using microwave heating of parylene for MEMS packaging		5
47	Conductivity improvement of isotropic conductive adhesives with short-chain dicarboxylic acids		5
46	Design and Surface Modification of PET Substrates Using UV/Ozone Treatment for Roll-to-Roll Processed Solar Photovoltaic (PV) Module Packaging 2018,		4
45	Nano filler dispersion in polymer composites for electronic packaging 2012,		4
44	ZnO quantum dots-filled encapsulant for LED packaging 2012,		4

43	Thermal Properties of Tin/Silver Alloy Nanoparticles for Low Temperature Lead-free Interconnect Technology 2007 ,		4
42	Improvement of electrical performance of anisotropically conductive adhesives		4
41	The role of self-assembled monolayer (SAM) on Ag nanoparticles for conductive nanocomposite		4
40	2016 ,		3
39	Ultra-high refractive index LED encapsulant 2014 ,		3
38	Design of Miura Folding-Based Micro-Supercapacitors as Foldable and Miniaturized Energy Storage Devices 2017 ,		3
37	A Kinetics Study on Electrical Resistivity Transition of In Situ Polymer Aging Sensors Based on Carbon-Black-Filled Epoxy Conductive Polymeric Composites (CPCs). <i>Journal of Electronic Materials</i> , 2013 , 42, 1114-1121	1.9	3
36	High refractive index and transparency nanocomposites as encapsulant for high brightness LED packaging 2013 ,		3
35	Novel surface modification of nanosilica for low stress underfill 2013 ,		3
34	Tin/silver/copper alloy nanoparticle pastes for low temperature lead-free interconnect applications 2008 ,		3
33	Ultra high conductivity of isotropic conductive adhesives		3
32	Nano metal particles for low temperature interconnect technology		3
31	Microstructures of Pb-Free Solder Joints by Reflow and Thermo-Compression Bonding (TCB) Processes 2019 ,		2
30	Cyanate Ester/Epoxy Co-Curing System with Thermal Stabilizers for High Temperature Stability 2018 ,		2
29	Epoxy/ Triazine Copolymer Resin System for High Temperature Encapsulant Applications 2019 ,		2
28	Carbon nanotubes inhibit the free-radical cross-linking of siloxane polymers. <i>Journal of Applied Polymer Science</i> , 2014 , 131, n/a-n/a	2.9	2
27	Water Vapor Treatment for Decreasing the Adhesion between Vertically Aligned Carbon Nanotubes and the Growth Substrate. <i>Chemical Vapor Deposition</i> , 2013 , 19, 224-227		2
26	Interfacial Design of Anisotropic Conductive Adhesive Based Interconnects Using Molecular Wires and Understanding of Their Electrical Conduction. <i>IEEE Transactions on Advanced Packaging</i> , 2010 , 33, 892-898		2

25	Electrical properties of ACA joints assisted by conjugated molecular wires 2009 ,		2
24	Nanocomposite for low stress underfill 2011 ,		2
23	Polyhedral oligomeric silsesquioxanes (POSS)-filled underfill with excellent high temperature performance 2012 ,		2
22	Nano materials for microelectronic and photonic packaging. <i>Frontiers of Optoelectronics in China</i> , 2010 , 3, 139-142		2
21	Development of transparent and flexible electrically conductive adhesives for microelectronics applications 2008 ,		2
20	Formation of self assembled monolayer (SAM) on metal surfaces for high performance anisotropically conductive adhesives		2
19	Epoxy Composites with Surface Modified Silicon Carbide Filler for High Temperature Molding Compounds 2019 ,		2
18	Comparison of two high temperature treatment methods on preparing electrically conductive polysulfide/Ag composites for aerospace sealant applications. <i>Journal of Applied Polymer Science</i> , 2021 , 138, 50121	2.9	2
17	Moisture Barrier, Mechanical, and Thermal Properties of PDMS-PIB Blends for Solar Photovoltaic (PV) Module Encapsulant 2019 ,		1
16	New electrically conductive adhesives (ECAs) for flexible interconnect applications 2009 ,		1
15	Thermal conductivity of epoxy/surface functionalized carbon nano materials 2009 ,		1
14	Surface treatment of MWCNT array and its polymer composites for TIM application 2008 ,		1
13	Effect of silica on the non-linear electrical property of polymer composites 2007 ,		1
12	Dielectric loss control of high-k polymer composites by Coulomb blockade effects of metal nanoparticles for embedded capacitor applications		1
11	Development of novel silver nanoparticles/polymer composites as high K polymer matrix by in-situ photochemical method		1
10	Novel nanotechnology for environmentally friendly interconnect materials in microelectronic packaging applications 2006 ,		1
9	Molecular dynamics simulation of lead free solder for low temperature reflow applications		1
8	Study on self-alignment capability of electrically conductive adhesives (ECAs) for flip-chip application		1

7	Study on the effect of toughening of no-flow underfill on fillet cracking		1
6	Surface Modification of Backsheets Using Coupling Agents for Roll-To-Roll Processed Thin-Film Solar Photovoltaic (PV) Module Packaging Application. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 1682-1692	9.5	1
5	Formulation and Processing of Conductive Polysulfide Sealants for Automotive and Aerospace Applications 2019 ,		1
4	Stable high thermal conductivities in BaTiO ₃ ceramic composites utilizing core-shell Ag@BaTiO ₃ particles. <i>Composites Part B: Engineering</i> , 2021 , 204, 108496	10	1
3	Novel Decapsulation Method for Silver-Based Wire-Bond Semiconductor Packages With High Reliability Using Mixed Salt/Acid Chemistry. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2019 , 9, 1459-1465	1.7	
2	Nano-conductive Adhesives for Nano-electronics Interconnection 2021 , 15-30		
1	Some Nanomaterials for Microelectronics and Photonics Packaging 2021 , 3-13		