Kyoung-Sik Moon

List of Publications by Year in Descending Order

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	Surface Modification of Backsheets Using Coupling Agents for Roll-To-Roll Processed Thin-Film Solar Photovoltaic (PV) Module Packaging Application. *ACS Applied Materials & Interfaces*, **2021**, 13, 1682-1692	9.5	1
149	Melt Processable Novolac Cyanate Ester/Biphenyl Epoxy Copolymer Series with Ultrahigh Glass-Transition Temperature. *ACS Applied Materials & Interfaces*, **2021**, 13, 15551-15562	9.5	6
148	Excellent high-temperature piezoelectric energy harvesting properties in flexible polyimide/3D PbTiO3 flower composites. *Nano Energy*, **2021**, 82, 105778	17.1	8
147	Comparison of two high temperature treatment methods on preparing electrically conductive polysulfide/Ag composites for aerospace sealant applications. *Journal of Applied Polymer Science*, **2021**, 138, 50121	2.9	2
146	Rheological properties and screen printability of UV curable conductive ink for flexible and washable E-textiles. *Journal of Materials Science and Technology*, **2021**, 67, 145-155	9.1	11
145	Laser-induced nitrogen-self-doped graphite nanofibers from cyanate ester for on-chip micro-supercapacitors. *Chemical Engineering Journal*, **2021**, 404, 126375	14.7	13
144	Stable high thermal conductivities in BaTiO3 ceramic composites utilizing core-shell Ag@BaTiO3 particles. *Composites Part B: Engineering*, **2021**, 204, 108496	10	1
143	Nano-conductive Adhesives for Nano-electronics Interconnection **2021**, 15-30		
142	Some Nanomaterials for Microelectronics and Photonics Packaging **2021**, 3-13		
141	A novel flower-like architecture comprised of 3D interconnected Co□Al-Ox/Sy decorated lignosulfonate-derived carbon nanosheets for flexible supercapacitors and electrocatalytic water splitting. *Carbon*, **2021**, 184, 386-399	10.4	7
140	Fabrication of stretchable and conductive polymer nanocomposites based on interconnected graphene aerogel. *Composites Science and Technology*, **2020**, 200, 108430	8.6	5
139	A sustainable reduction route of graphene oxide by industrial waste lignin for versatile applications in energy and environment. *Journal of Cleaner Production*, **2020**, 268, 122019	10.3	11
138	Flexible and electrically conductive composites based on 3D hierarchical silver dendrites. *Soft Matter*, **2020**, 16, 6765-6772	3.6	9
137	Hydrothermal synthesis of BaTiO3 nanowires for high energy density nanocomposite capacitors. *Journal of Materials Science*, **2020**, 55, 6903-6914	4.3	9
136	Laser-induced and KOH-activated 3D graphene: A flexible activated electrode fabricated via direct laser writing for in-plane micro-supercapacitors. *Chemical Engineering Journal*, **2020**, 393, 124672	14.7	39
135	Systematic evaluation of cyanate ester/ epoxidized cresol novolac copolymer resin system for high temperature power electronic packaging applications. *Polymer*, **2020**, 195, 122454	3.9	6
134	RGO-templated lignin-derived porous carbon materials for renewable high-performance supercapacitors. *Electrochimica Acta*, **2020**, 353, 136482	6.7	8

133	Greatly enhanced power conversion efficiency of hole-transport-layer-free perovskite solar cell via coherent interfaces of perovskite and carbon layers. *Nano Energy*, **2020**, 77, 105110	17.1	9
132	Enhanced dielectric constant and energy density in a BaTiO3/polymer-matrix composite sponge. *Communications Materials*, **2020**, 1,	6	8
131	Atomic Modulation of 3D Conductive Frameworks Boost Performance of MnO for Coaxial Fiber-Shaped Supercapacitors. *Nano-Micro Letters*, **2020**, 13, 4	19.5	10
130	Novel Decapsulation Method for Silver-Based Wire-Bond Semiconductor Packages With High Reliability Using Mixed Salt–Acid Chemistry. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, **2019**, 9, 1459-1465	1.7	
129	Microstructures of Pb-Free Solder Joints by Reflow and Thermo-Compression Bonding (TCB) Processes **2019**,		2
128	Epoxy/ Triazine Copolymer Resin System for High Temperature Encapsulant Applications **2019**,		2
127	Moisture Barrier, Mechanical, and Thermal Properties of PDMS-PIB Blends for Solar Photovoltaic (PV) Module Encapsulant **2019**,		1
126	Epoxy Composites with Surface Modified Silicon Carbide Filler for High Temperature Molding Compounds **2019**,		2
125	Formulation and Processing of Conductive Polysulfide Sealants for Automotive and Aerospace Applications **2019**,		1
124	A strategy for design of non-percolative composites with stable giant dielectric constants and high energy densities. *Nano Energy*, **2019**, 58, 419-426	17.1	29
123	Controlled synthesis and evaluation of cyanate ester/epoxy copolymer system for high temperature molding compounds. *Journal of Polymer Science Part A*, **2018**, 56, 1337-1345	2.5	13
122	Effect of polymer binders on graphene-based free-standing electrodes for supercapacitors. *Electrochimica Acta*, **2018**, 267, 213-221	6.7	25
121	Scalable Preparation of Fully Coated 3 Particles via Poly(vinylpyrrolidone) Assistance for High-k Applications. *ACS Applied Nano Materials*, **2018**, 1, 1396-1403	5.6	9
120	Cyanate Ester/Epoxy Co-Curing System with Thermal Stabilizers for High Temperature Stability **2018**,		2
119	Design and Surface Modification of PET Substrates Using UV/Ozone Treatment for Roll-to-Roll Processed Solar Photovoltaic (PV) Module Packaging **2018**,		4
118	Stretchable, Printable and Electrically Conductive Composites for Wearable RF Antennas **2018**,		5
117	Processing and characterization of silver-filled conductive polysulfide sealants for aerospace applications. *Soft Matter*, **2018**, 14, 9036-9043	3.6	10
116	Polyimide incorporated cyanate ester/epoxy copolymers for high-temperature molding compounds. *Journal of Polymer Science Part A*, **2018**, 56, 2412-2421	2.5	8

115	Ultrafast Molecular Stitching of Graphene Films at the Ethanol/Water Interface for High Volumetric Capacitance. *Nano Letters*, **2017**, 17, 1365-1370	11.5	38
114	Self-Patterning of Silica/Epoxy Nanocomposite Underfill by Tailored Hydrophilic-Superhydrophobic Surfaces for 3D Integrated Circuit (IC) Stacking. *ACS Applied Materials & Interfaces*, **2017**, 9, 8437-8442	8.5	9
113	Particle size effect in porous film electrodes of ligand-modified graphene for enhanced supercapacitor performance. *Carbon*, **2017**, 119, 296-304	10.4	20
112	Microscopic vertical orientation of nano-interspaced graphene architectures in deposit films as electrodes for enhanced supercapacitor performance. *Nano Energy*, **2017**, 32, 88-95	17.1	20
111	Stretchable and Electrically Conductive Composites Fabricated from Polyurethane and Silver Nano/Microstructures **2017**,		7
110	Design of Miura Folding-Based Micro-Supercapacitors as Foldable and Miniaturized Energy Storage Devices **2017**,		3
109	Systematic study on structural and electronic properties of diamine/triamine functionalized graphene networks for supercapacitor application. *Nano Energy*, **2017**, 31, 183-193	17.1	99
108	Epoxy/Cyanate Ester Copolymer Material for Molding Compounds in High-Temperature Operations **2017**,		7
107	Vertically Aligned and Interconnected Graphene Networks for High Thermal Conductivity of Epoxy Composites with Ultralow Loading. *Chemistry of Materials*, **2016**, 28, 6096-6104	9.6	246
106	Highly Conductive Polyurethane/Polyaniline-Based Composites for Wearable Electronic Applications **2016**,		6
105	Molecular Level Study of Graphene Networks Functionalized with Phenylenediamine Monomers for Supercapacitor Electrodes. *Chemistry of Materials*, **2016**, 28, 9110-9121	9.6	80
104	**2016**,		3
103	Recent Developments in Design and Fabrication of Graphene-Based Interdigital Micro-Supercapacitors for Miniaturized Energy Storage Devices. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, **2016**, 6, 1752-1765	1.7	16
102	Molecular engineering of aromatic amine spacers for high-performance graphene-based supercapacitors. *Nano Energy*, **2016**, 21, 276-294	17.1	54
101	Sulfonated polyaniline decorated graphene nanocomposites as supercapacitor electrodes. *Materials Letters*, **2016**, 166, 12-15	3.3	33
100	Water-dispersible graphene/polyaniline composites for flexible micro-supercapacitors with high energy densities. *Nano Energy*, **2015**, 16, 470-478	17.1	134
99	Capacitance enhancement by electrochemically active benzene derivatives for graphene-based supercapacitors. *RSC Advances*, **2015**, 5, 84113-84118	3.7	7
98	Three-dimensional graphene-based composite for flexible electronic applications **2015**,		7

97	Triethanolamine functionalized graphene-based composites for high performance supercapacitors. *Journal of Materials Chemistry A*, **2015**, 3, 21789-21796	13	92
96	Mechanistic investigation of the graphene functionalization using p-phenylenediamine and its application for supercapacitors. *Nano Energy*, **2015**, 17, 160-170	17.1	117
95	Rational Design of a Printable, Highly Conductive Silicone-based Electrically Conductive Adhesive for Stretchable Radio-Frequency Antennas. *Advanced Functional Materials*, **2015**, 25, 464-470	15.6	75
94	3D porous graphene with ultrahigh surface area for microscale capacitive deionization. *Nano Energy* , **2015**, 11, 711-718	17.1	130
93	Solution-processed flexible solid-state micro-supercapacitors for on-chip energy storage devices **2015**,		5
92	Alternating current line-filter based on electrochemical capacitor utilizing template-patterned graphene. *Scientific Reports*, **2015**, 5, 10983	4.9	46
91	Conformal Pad-Printing Electrically Conductive Composites onto Thermoplastic Hemispheres: Toward Sustainable Fabrication of 3-Cents Volumetric Electrically Small Antennas. *PLoS ONE*, **2015**, 10, e0136939	3.7	8
90	Double-Sided Transferred Carbon Nanotube Arrays for Improved Thermal Interface Materials. *Journal of Electronic Packaging, Transactions of the ASME*, **2015**, 137,	2	9
89	Thermo-mechanical Characterization of Metal/Polymer Composite Filaments and Printing Parameter Study for Fused Deposition Modeling in the 3D Printing Process. *Journal of Electronic Materials*, **2015**, 44, 771-777	1.9	240
88	Exfoliated hexagonal boron nitride-based polymer nanocomposite with enhanced thermal conductivity for electronic encapsulation. *Composites Science and Technology*, **2014**, 90, 123-128	8.6	220
87	High Refractive Index and Transparent Nanocomposites as Encapsulant for High Brightness LED Packaging. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, **2014**, 4, 1125-1130	1.7	15
86	Ultra-high refractive index LED encapsulant **2014**,		3
85	Flexible micro-supercapacitor based on in-situ assembled graphene on metal template at room temperature. *Nano Energy*, **2014**, 10, 222-228	17.1	98
84	Carbon nanotubes inhibit the free-radical cross-linking of siloxane polymers. *Journal of Applied Polymer Science*, **2014**, 131, n/a-n/a	2.9	2
83	The conduction development mechanism of silicone-based electrically conductive adhesives. *Journal of Materials Chemistry C*, **2013**, 1, 4368	7.1	24
82	A Kinetics Study on Electrical Resistivity Transition of In Situ Polymer Aging Sensors Based on Carbon-Black-Filled Epoxy Conductive Polymeric Composites (CPCs). *Journal of Electronic Materials*, **2013**, 42, 1114-1121	1.9	3
81	Highly Conductive, Flexible, Polyurethane-Based Adhesives for Flexible and Printed Electronics. *Advanced Functional Materials*, **2013**, 23, 1459-1465	15.6	112
80	High refractive index and transparency nanocomposites as encapsulant for high brightness LED packaging **2013**,		3

79	Preparation of Water-Based Carbon Nanotube Inks and Application in the Inkjet Printing of Carbon Nanotube Gas Sensors. *Journal of Electronic Packaging, Transactions of the ASME*, **2013**, 135,	2	15
78	The Standardization of Printable Materials and Direct Writing Systems. *Journal of Electronic Packaging, Transactions of the ASME*, **2013**, 135,	2	18
77	Novel surface modification of nanosilica for low stress underfill **2013**,		3
76	Water Vapor Treatment for Decreasing the Adhesion between Vertically Aligned Carbon Nanotubes and the Growth Substrate. *Chemical Vapor Deposition*, **2013**, 19, 224-227		2
75	Enhanced thermal transport of hexagonal boron nitride filled polymer composite by magnetic field-assisted alignment **2013**,		6
74	Nano filler dispersion in polymer composites for electronic packaging **2012**,		4
73	Thermal Conductivity Enhancement of Epoxy Composites by Interfacial Covalent Bonding for Underfill and Thermal Interfacial Materials in Cu/Low-K Application. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, **2012**, 2, 1571-1579	1.7	10
72	Single/few-layer boron nitride-based nanocomposites for high thermal conductivity underfills **2012** ,		7
71	Large-scale production of two-dimensional nanosheets. *Journal of Materials Chemistry*, **2012**, 22, 13494		306
70	Polyhedral oligomeric silsesquioxanes (POSS)-filled underfill with excellent high temperature performance **2012**,		2
69	ZnO quantum dots-filled encapsulant for LED packaging **2012**,		4
68	Highly Reliable Copper-Based Conductive Adhesives Using an Amine Curing Agent for in Situ Oxidation/Corrosion Prevention. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, **2011**, 1, 25-32	1.7	11
67	Controlled Growth of Multilayer, Few-Layer, and Single-Layer Graphene on Metal Substrates. *Journal of Physical Chemistry C*, **2011**, 115, 5232-5238	3.8	107
66	Nanocomposite for low stress underfill **2011**,		2
65	Fast preparation of printable highly conductive polymer nanocomposites by thermal decomposition of silver carboxylate and sintering of silver nanoparticles. *ACS Applied Materials & Interfaces*, **2010**, 2, 2637-45	9.5	119
64	Ultrafast, dry microwave synthesis of graphene sheets. *Journal of Materials Chemistry*, **2010**, 20, 4781		112
63	Synthesis of High-Quality Vertically Aligned Carbon Nanotubes on Bulk Copper Substrate for Thermal Management. *IEEE Transactions on Advanced Packaging*, **2010**, 33, 370-376		42
62	Interfacial Design of Anisotropic Conductive Adhesive Based Interconnects Using Molecular Wires and Understanding of Their Electrical Conduction. *IEEE Transactions on Advanced Packaging*, **2010**, 33, 892-898		2

61	Preparation of highly conductive polymer nanocomposites by low temperature sintering of silver nanoparticles. *Journal of Materials Chemistry*, **2010**, 20, 2018		123
60	Nano materials for microelectronic and photonic packaging. *Frontiers of Optoelectronics in China*, **2010**, 3, 139-142		2
59	Electrical properties of ACA joints assisted by conjugated molecular wires **2009**,		2
58	New electrically conductive adhesives (ECAs) for flexible interconnect applications **2009**,		1
57	Epoxy/h-BN composites for thermally conductive underfill material **2009**,		14
56	Thermal conductivity of epoxy/surface functionalized carbon nano materials **2009**,		1
55	Self-assembled monolayer-assisted chemical transfer of in situ functionalized carbon nanotubes. *Journal of the American Chemical Society*, **2008**, 130, 9636-7	16.4	42
54	Silver/polymer nanocomposite as a high-kpolymer matrix for dielectric composites with improved dielectric performance. *Journal of Materials Chemistry*, **2008**, 18, 4821		93
53	High thermal conductive underfill materials for flip-chip application **2008**,		10
52	Surface treatment of MWCNT array and its polymer composites for TIM application **2008**,		1
51	Review of Recent Advances in Electrically Conductive Adhesive Materials and Technologies in Electronic Packaging. *Journal of Adhesion Science and Technology*, **2008**, 22, 1593-1630	2	103
50	Development of transparent and flexible electrically conductive adhesives for microelectronics applications **2008**,		2
49	Tin/Indium nanobundle formation from aggregation or growth of nanoparticles. *Journal of Nanoparticle Research*, **2008**, 10, 41-46	2.3	10
48	Tin/silver/copper alloy nanoparticle pastes for low temperature lead-free interconnect applications **2008**,		3
47	Optimization of Epoxy-Barium Titanate Nanocomposites for High Performance Embedded Capacitor Components. *IEEE Transactions on Components and Packaging Technologies*, **2007**, 30, 248-253		14
46	Thermal Properties of Tin/Silver Alloy Nanoparticles for Low Temperature Lead-free Interconnect Technology **2007**,		4
45	High-k Polymer Nanocomposites as Gate Dielectrics for Organic Electronics Applications **2007**,		5
44	The preparation of stable metal nanoparticles on carbon nanotubes whose surfaces were modified during production. *Carbon*, **2007**, 45, 655-661	10.4	69

43	Magnetic Nanocomposite for Potential Ultrahigh Frequency Microelectronic Application. *Journal of Electronic Materials*, **2007**, 36, 593-597	1.9	12
42	Ferrite Polymer Composite for Improving the Electromagnetic Compatibility of Semiconductor Packaging. *Journal of Electronic Materials*, **2007**, 36, 1711-1718	1.9	8
41	Low Temperature Carbon Nanotube Film Transfer via Conductive Adhesives **2007**,		7
40	Low temperature carbon nanotube film transfer via conductive polymer composites. *Nanotechnology*, **2007**, 18, 125203	3.4	39
39	Assembling Carbon Nanotube Bundles Using Transfer Process for Fine-Pitch Electrical Interconnect Applications **2007**,		8
38	Synthesis and Thermal and Wetting Properties of Tin/Silver Alloy Nanoparticles for Low Melting Point Lead-Free Solders. *Chemistry of Materials*, **2007**, 19, 4482-4485	9.6	104
37	Effect of silica on the non-linear electrical property of polymer composites **2007**,		1
36	Enhancement of electrical properties of anisotropically conductive adhesive joints via low temperature sintering. *Journal of Applied Polymer Science*, **2006**, 99, 1665-1673	2.9	47
35	Electrical property improvement of electrically conductive adhesives through in-situ replacement by short-chain difunctional acids. *IEEE Transactions on Components and Packaging Technologies*, **2006**, 29, 173-178		31
34	A novel aluminum-filled composite dielectric for embedded passive applications. *IEEE Transactions on Advanced Packaging*, **2006**, 29, 295-306		55
33	Synthesis and dielectric properties of novel high-K polymer composites containing in-situ formed silver nanoparticles for embedded capacitor applications. *Journal of Materials Chemistry*, **2006**, 16, 1543		225
32	Surface Functionalized Silver Nanoparticles for Ultrahigh Conductive Polymer Composites. *Chemistry of Materials*, **2006**, 18, 2969-2973	9.6	230
31	Enhancement of Electrical Properties of Electrically Conductive Adhesives (ECAs) by Using Novel Aldehydes. *IEEE Transactions on Components and Packaging Technologies*, **2006**, 29, 758-763		24
30	Novel nanotechnology for environmentally friendly interconnect materials in microelectronic packaging applications **2006**,		1
29	Novel curing agent for lead-free electronics: Amino acid. *Journal of Polymer Science Part A*, **2006**, 44, 1020-1027	2.5	38
28	Variable Frequency Microwave Synthesis of Silver Nanoparticles. *Journal of Nanoparticle Research*, **2006**, 8, 117-124	2.3	94
27	Reliability improvement of conductive adhesives on tin (Sn) surfaces. *Journal of Adhesion Science and Technology*, **2005**, 19, 1427-1444	2	12
26	Materials science. Electronics without lead. *Science*, **2005**, 308, 1419-20	33.3	381

25	Influence of flux on wetting behavior of lead-free solder balls during the infrared-reflow process. *Journal of Electronic Materials*, **2005**, 34, 994-1001	1.9	18
24	Lead-free interconnect technique by using variable frequency microwave. *Journal of Electronic Materials*, **2005**, 34, 1081-1088	1.9	14
23	Monolayer-protected silver nano-particle-based anisotropic conductive adhesives: Enhancement of electrical and thermal properties. *Journal of Electronic Materials*, **2005**, 34, 1573-1578	1.9	50
22	Molecular dynamics study of nanosilver particles for low-temperature lead-free interconnect applications. *Journal of Electronic Materials*, **2005**, 34, 40-45	1.9	28
21	Conductivity enhancement of nano silver-filled conductive adhesives by particle surface functionalization. *Journal of Electronic Materials*, **2005**, 34, 1432-1439	1.9	98
20	Adherence of self-assembled monolayers on gold and their effects for high-performance anisotropic conductive adhesives. *Journal of Electronic Materials*, **2005**, 34, 266-271	1.9	54
19	Thermal behavior of silver nanoparticles for low-temperature interconnect applications. *Journal of Electronic Materials*, **2005**, 34, 168-175	1.9	300
18	Molecular dynamics study on the coalescence of Cu nanoparticles and their deposition on the Cu substrate. *Journal of Electronic Materials*, **2004**, 33, 1326-1330	1.9	25
17	Stabilizing contact resistance of isotropically conductive adhesives on various metal surfaces by incorporating sacrificial anode materials. *Journal of Electronic Materials*, **2004**, 33, 1381-1388	1.9	17
16	A novel approach to stabilize contact resistance of electrically conductive adhesives on lead-free alloy surfaces. *Journal of Electronic Materials*, **2004**, 33, 106-113	1.9	23
15	Glass transition and relaxation behavior of epoxy nanocomposites. *Journal of Polymer Science, Part B: Polymer Physics*, **2004**, 42, 3849-3858	2.6	280
14	Improved stability of contact resistance of low melting point alloy incorporated isotropically conductive adhesives. *IEEE Transactions on Components and Packaging Technologies*, **2003**, 26, 375-381		18
13	Ultra high conductivity of isotropic conductive adhesives		3
12	Improvement of electrical performance of anisotropically conductive adhesives		4
11	The role of self-assembled monolayer (SAM) on Ag nanoparticles for conductive nanocomposite		4
10	Synthesis of Ag-Cu alloy nanoparticles for lead-free interconnect materials		11
9	Dielectric loss control of high-k polymer composites by Coulomb blockade effects of metal nanoparticles for embedded capacitor applications		1
8	Development of novel silver nanoparticles/polymer composites as high K polymer matrix by in-situ photochemical method		1

7	Wafer bonding using microwave heating of parylene for MEMS packaging	5
6	Formation of self assembled monolayer (SAM) on metal surfaces for high performance anisotropically conductive adhesives	2
5	Nano metal particles for low temperature interconnect technology	3
4	Conductivity improvement of isotropic conductive adhesives with short-chain dicarboxylic acids	5
3	Molecular dynamics simulation of lead free solder for low temperature reflow applications	1
2	Study on self-alignment capability of electrically conductive adhesives (ECAs) for flip-chip application	1
1	Study on the effect of toughening of no-flow underfill on fillet cracking	1