

Taek-Soo Kim

List of Publications by Year in descending order

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153
papers

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61984

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times ranked

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#	ARTICLE	IF	CITATIONS
1	Polymer Acceptors with Flexible Spacers Afford Efficient and Mechanically Robust All-Polymer Solar Cells. <i>Advanced Materials</i> , 2022, 34, e2107361.	21.0	89
2	Enlarged tensile strain at edge of flexible substrate due to anticlastic curvature. <i>Microelectronics Reliability</i> , 2022, 130, 114485.	1.7	2
3	High-Performance, Flexible NO ₂ Chemiresistors Achieved by Design of Imine-Incorporated n-Type Conjugated Polymers. <i>Advanced Science</i> , 2022, 9, e2200270.	11.2	28
4	<i>Egr1</i> is a 3D matrix-specific mediator of mechanosensitive stem cell lineage commitment. <i>Science Advances</i> , 2022, 8, eabm4646.	10.3	20
5	Molecular Engineering for Function-Tailored Interface Modifier in High-Performance Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	16
6	Geometrically engineered rigid island array for stretchable electronics capable of withstanding various deformation modes. <i>Science Advances</i> , 2022, 8, .	10.3	35
7	Thermomechanical Behavior of Poly(3-hexylthiophene) Thin Films on the Water Surface. <i>ACS Omega</i> , 2022, 7, 19706-19713.	3.5	4
8	Siloxane Hybrid Material-Encapsulated Highly Robust Flexible 1/4 LEDs for Biocompatible Lighting Applications. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 28258-28269.	8.0	9
9	Improving the Sensitivity of the Mechanoluminescence Composite through Functionalization for Structural Health Monitoring. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 30205-30215.	8.0	12
10	Digital selective transformation and patterning of highly conductive hydrogel bioelectronics by laser-induced phase separation. <i>Science Advances</i> , 2022, 8, .	10.3	63
11	Mechanical properties of organic semiconductors for flexible electronics. , 2021, , 199-223.		3
12	Efficient, Thermally Stable, and Mechanically Robust All-Polymer Solar Cells Consisting of the Same Benzodithiophene Unit-Based Polymer Acceptor and Donor with High Molecular Compatibility. <i>Advanced Energy Materials</i> , 2021, 11, 2003367.	19.5	122
13	Ester-functionalized, wide-bandgap derivatives of PM7 for simultaneous enhancement of photovoltaic performance and mechanical robustness of all-polymer solar cells. <i>Journal of Materials Chemistry A</i> , 2021, 9, 2775-2783.	10.3	23
14	Selective Defect Passivation and Topographical Control of 4-Dimethylaminopyridine at Grain Boundary for Efficient and Stable Planar Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2021, 11, 2003382.	19.5	82
15	Flexible-spacer incorporated polymer donors enable superior blend miscibility for high-performance and mechanically-robust polymer solar cells. <i>Energy and Environmental Science</i> , 2021, 14, 4067-4076.	30.8	98
16	A Flash-Induced Robust Cu Electrode on Glass Substrates and Its Application for Thin-Film 1/4 LEDs. <i>Advanced Materials</i> , 2021, 33, e2007186.	21.0	15
17	Unveiling the Annealing-Dependent Mechanical Properties of Freestanding Indium Tin Oxide Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 16650-16659.	8.0	18
18	Controlling Neutral Plane of Flexible Substrates by Asymmetric Impregnation of Glass Fabric for Protecting Brittle Films on Foldable Electronics. <i>Advanced Engineering Materials</i> , 2021, 23, 2001280.	3.5	17

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19	Enhanced Triboelectric Nanogenerator Based on Tungsten Disulfide via Thiolated Ligand Conjugation. ACS Applied Materials & Interfaces, 2021, 13, 21299-21309.	8.0	25
20	High-Molecular-Weight Electroactive Polymer Additives for Simultaneous Enhancement of Photovoltaic Efficiency and Mechanical Robustness in High-Performance Polymer Solar Cells. JACS Au, 2021, 1, 612-622.	7.9	40
21	Tubular Hygro-mechanical Polymeric Brake for Soft and Compact Wearable Robots. ACS Applied Polymer Materials, 2021, 3, 3206-3213.	4.4	4
22	Highly efficient, heat dissipating, stretchable organic light-emitting diodes based on a MoO ₃ /Au/MoO ₃ electrode with encapsulation. Nature Communications, 2021, 12, 2864.	12.8	42
23	A soft and transparent contact lens for the wireless quantitative monitoring of intraocular pressure. Nature Biomedical Engineering, 2021, 5, 772-782.	22.5	100
24	Quantification of Performance Variation and Crack Evolution of Bond-Wire Interconnects Under Harsh Temperature Environments by S-Parameter Analysis. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2021, 11, 990-998.	2.5	3
25	Intrinsically Stretchable Organic Solar Cells with Efficiencies of over 11%. ACS Energy Letters, 2021, 6, 2512-2518.	17.4	69
26	Long-term reliable physical health monitoring by sweat pore-inspired perforated electronic skins. Science Advances, 2021, 7, .	10.3	89
27	Liquid-assisted adhesion control of graphene-copper interface for damage-free mechanical transfer. Applied Surface Science, 2021, 551, 149229.	6.1	9
28	Programmable Liquid Crystal Defect Arrays via Electric Field Modulation for Mechanically Functional Liquid Crystal Networks. ACS Applied Materials & Interfaces, 2021, 13, 36253-36261.	8.0	15
29	Simultaneous Enhanced Efficiency and Stability of Perovskite Solar Cells Using Adhesive Fluorinated Polymer Interfacial Material. ACS Applied Materials & Interfaces, 2021, 13, 35595-35605.	8.0	20
30	Comparison of the mechanical properties of polymer blend and main-chain conjugated copolymer films with donor-acceptor heterojunctions. Chemical Engineering Journal, 2021, 415, 128952.	12.7	8
31	Intrinsic swelling behavior of free-standing nanoporous ionomer-bound carbon films. Polymer Testing, 2021, 100, 107241.	4.8	1
32	Elongation improvement of transparent and flexible surface protective coating using polydimethylsiloxane-anchored epoxy-functionalized siloxane hybrid composite for reliable out-foldable displays. Composites Part B: Engineering, 2021, 225, 109313.	12.0	16
33	Enhanced stretchability of metal/interlayer/metal hybrid electrode. Nanoscale, 2021, 13, 4543-4550.	5.6	6
34	Capillary-Force-Driven Switchable Delamination of Nanofilms and Its Application to Green Selective Transfer. Advanced Materials Technologies, 2021, 6, 2001082.	5.8	4
35	Electrical resistance change in thermally reconfigured nanoporous ionomer-bound carbon films. Journal of Materials Chemistry A, 2021, 9, 13019-13025.	10.3	2
36	Side Chain Engineered Naphthalene Diimide-Based Terpolymer for Efficient and Mechanically Robust All-Polymer Solar Cells. Chemistry of Materials, 2021, 33, 1070-1081.	6.7	46

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37	Self-Powered Flexible Full-Color Display via Dielectric-Tuned Hybrimer Triboelectric Nanogenerators. ACS Energy Letters, 2021, 6, 4097-4107.	17.4	15
38	Donor-acceptor Alternating Copolymer Compatibilizers for Thermally Stable, Mechanically Robust, and High-Performance Organic Solar Cells. ACS Nano, 2021, 15, 19970-19980.	14.6	38
39	High-Performance Ni/Pt Composite Catalytic Anode with Ultra-Low Pt Loading for Low-Temperature Solid Oxide Fuel Cells. International Journal of Precision Engineering and Manufacturing - Green Technology, 2020, 7, 141-150.	4.9	2
40	Effects of Thickness and Crystallographic Orientation on Tensile Properties of Thinned Silicon Wafers. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2020, 10, 296-303.	2.5	9
41	Origin of the High Donor-acceptor Composition Tolerance in Device Performance and Mechanical Robustness of All-Polymer Solar Cells. Chemistry of Materials, 2020, 32, 582-594.	6.7	68
42	An Interlocking Fibrillar Polymer Layer for Mechanical Stability of Perovskite Solar Cells. Advanced Materials Interfaces, 2020, 7, 2001425.	3.7	9
43	Record-efficiency flexible perovskite solar cell and module enabled by a porous-planar structure as an electron transport layer. Energy and Environmental Science, 2020, 13, 4854-4861.	30.8	137
44	Highly robust nanostructured carbon films by thermal reconfiguration of ionomer binding. Journal of Materials Chemistry A, 2020, 8, 24763-24773.	10.3	4
45	Multi-directionally wrinkle-able textile OLEDs for clothing-type displays. Npj Flexible Electronics, 2020, 4, .	10.7	41
46	Stretchable OLEDs: Realizing Stretchable OLEDs: A Hybrid Platform Based on Rigid Island Arrays on a Stress-relieving Bilayer Structure (Adv. Mater. Technol. 11/2020). Advanced Materials Technologies, 2020, 5, 2070068.	5.8	0
47	A Study on the Dynamic Bending Property of Chip-on-Flex Assembly Using Anchoring Polymer Layer Anisotropic Conductive Films. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2020, 10, 941-948.	2.5	8
48	Highly Mobile Levitating Soft Actuator Driven by Multistimuli-responses. Advanced Materials Interfaces, 2020, 7, 2001051.	3.7	10
49	Desolvation-triggered Versatile Transfer-printing of Pure BN Films with Thermal-optical Dual Functionality. Advanced Materials, 2020, 32, 2002099.	21.0	5
50	Realizing Stretchable OLEDs: A Hybrid Platform Based on Rigid Island Arrays on a Stress-relieving Bilayer Structure. Advanced Materials Technologies, 2020, 5, 2000494.	5.8	23
51	Creation of Curved Nanostructures Using Soft-Materials-Derived Lithography. Nanomaterials, 2020, 10, 2414.	4.1	2
52	Human-palm-inspired Artificial Skin Material Enhances Operational Functionality of Hand Manipulation. Advanced Functional Materials, 2020, 30, 2002360.	14.9	14
53	Artificial Skin: Human-palm-inspired Artificial Skin Material Enhances Operational Functionality of Hand Manipulation (Adv. Funct. Mater. 25/2020). Advanced Functional Materials, 2020, 30, 2070161.	14.9	1
54	Triad-type, multi-functional compatibilizers for enhancing efficiency, stability and mechanical robustness of polymer solar cells. Journal of Materials Chemistry A, 2020, 8, 13522-13531.	10.3	16

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55	A Study on the Flexible Chip-on-Fabric Assemblies Using Anisotropic Conductive Films and Metal-Laminated Fabric Substrates. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2020, 10, 360-367.	2.5	1
56	Mechanically Robust All-Polymer Solar Cells from Narrow Band Gap Acceptors with Hetero-Bridging Atoms. Joule, 2020, 4, 658-672.	24.0	279
57	A Study on the Fabric Substrates With Fine-Pitch Laminated Cu Metal Patterns Using B-Stage Adhesive Films. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2020, 10, 176-183.	2.5	0
58	Effects of Post-annealing and Co Interlayer Between SiNx and Cu on the Interfacial Adhesion Energy for Advanced Cu Interconnections. Electronic Materials Letters, 2020, 16, 311-320.	2.2	2
59	Design of ultrathin OLEDs having oxide-based transparent electrodes and encapsulation with sub-mm bending radius. Organic Electronics, 2020, 82, 105704.	2.6	29
60	Mechanical and Electrical Reliability Analysis of Flexible Si Complementary Metal-Oxide-Semiconductor Integrated Circuit. Journal of Nanoscience and Nanotechnology, 2019, 19, 6473-6480.	0.9	0
61	Regioregular- <i>block</i> -Regiorandom Poly(3-hexylthiophene) Copolymers for Mechanically Robust and High-Performance Thin-Film Transistors. Macromolecules, 2019, 52, 7721-7730.	4.8	40
62	Aqueous-Soluble Naphthalene Diimide-Based Polymer Acceptors for Efficient and Air-Stable All-Polymer Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 45038-45047.	8.0	42
63	Influence of Acceptor Type and Polymer Molecular Weight on the Mechanical Properties of Polymer Solar Cells. Chemistry of Materials, 2019, 31, 9057-9069.	6.7	102
64	Wearable, Ultrawide-Range, and Bending-Insensitive Pressure Sensor Based on Carbon Nanotube Network-Coated Porous Elastomer Sponges for Human Interface and Healthcare Devices. ACS Applied Materials & Interfaces, 2019, 11, 23639-23648.	8.0	155
65	Thermal expansion behavior of thin films expanding freely on water surface. Scientific Reports, 2019, 9, 7071.	3.3	20
66	Importance of Critical Molecular Weight of Semicrystalline n-Type Polymers for Mechanically Robust, Efficient Electroactive Thin Films. Chemistry of Materials, 2019, 31, 3163-3173.	6.7	115
67	Direct Visualization of Cross-Sectional Strain Distribution in Flexible Devices. ACS Applied Materials & Interfaces, 2019, 11, 13416-13422.	8.0	23
68	Role of Crack Deflection on Rate Dependent Mechanical Transfer of Multilayer Graphene and Its Application to Transparent Electrodes. ACS Applied Nano Materials, 2019, 2, 1980-1985.	5.0	13
69	Low-Temperature and Corrosion-Resistant Gas Diffusion Multibarrier with UV and Heat Rejection Capability—A Strategy to Ensure Reliability of Organic Electronics. ACS Applied Materials & Interfaces, 2019, 11, 16776-16784.	8.0	15
70	Effects of the Materials Properties of Epoxy Molding Films (EMFs) on Fan-Out Packages (FOPs) Characteristics. , 2019, , .		1
71	Effect of High Film Stress of Mo Source and Drain Electrodes on Electrical Characteristics of Al Doped InZnSnO TFTs. IEEE Electron Device Letters, 2019, 40, 1760-1763.	3.9	5
72	Wireless powered wearable micro light-emitting diodes. Nano Energy, 2019, 55, 454-462.	16.0	83

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73	Performance improvement of flexible piezoelectric energy harvester for irregular human motion with energy extraction enhancement circuit. <i>Nano Energy</i> , 2019, 58, 211-219.	16.0	88
74	Effects of graphene oxide on the electromigration lifetime of lead-free solder joints. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 2334-2341.	2.2	8
75	Comparative Study of the Mechanical Properties of All-Polymer and Fullerene-Polymer Solar Cells: The Importance of Polymer Acceptors for High Fracture Resistance. <i>Chemistry of Materials</i> , 2018, 30, 2102-2111.	6.7	79
76	Direct Graphene Transfer and Its Application to Transfer Printing Using Mechanically Controlled, Large Area Graphene/Copper Freestanding Layer. <i>Advanced Functional Materials</i> , 2018, 28, 1707102.	14.9	40
77	Mechanically robust and high-performance ternary solar cells combining the merits of all-polymer and fullerene blends. <i>Journal of Materials Chemistry A</i> , 2018, 6, 4494-4503.	10.3	54
78	A High Aspect Ratio Serpentine Structure for Use As a Strain-Insensitive, Stretchable Transparent Conductor. <i>Small</i> , 2018, 14, 1702818.	10.0	32
79	Flexible and Transparent Graphene Electrode Architecture with Selective Defect Decoration for Organic Light-Emitting Diodes. <i>Advanced Functional Materials</i> , 2018, 28, 1704435.	14.9	67
80	Design of Magnetic Force Field for Trajectory Control of Levitated Diamagnetic Graphite. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2018, 5, 341-347.	4.9	12
81	Layer-by-Layer Assembly of Free-Standing Nanofilms by Controlled Rolling. <i>Langmuir</i> , 2018, 34, 5831-5836.	3.5	12
82	Exploiting π - π Stacking for Stretchable Semiconducting Polymers. <i>Macromolecules</i> , 2018, 51, 2572-2579.	4.8	104
83	Stress Analysis of Rollable OLED Display Considering Boundary Conditions Based on Finite Element Method. , 2018, , .		0
84	Effect of the acceptor types on the fracture behavior of polymer solar cells. , 2018, , .		0
85	Iron Gall Ink Revisited: In Situ Oxidation of Fe(II)-Tannin Complex for Fluidic-Interface Engineering. <i>Advanced Materials</i> , 2018, 30, e1805091.	21.0	65
86	Stretchable thin-film transistors with molybdenum disulfide channels and graphene electrodes. <i>Nanoscale</i> , 2018, 10, 16069-16078.	5.6	23
87	Effects of ACFs Modulus and Adhesion Strength on the Bending Reliability of CIF (Chip-in-Flex) Packages at Humid Environment. , 2018, , .		3
88	Accelerated Degradation Due to Weakened Adhesion from Li-TFSI Additives in Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 7029-7035.	8.0	122
89	A quantitative strain analysis of a flexible single-crystalline silicon membrane. <i>Applied Physics Letters</i> , 2017, 110, 033105.	3.3	10
90	Comparison of Methods for Determining the Mechanical Properties of Semiconducting Polymer Films for Stretchable Electronics. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 8855-8862.	8.0	136

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91	Electromechanical diagnostic method for monitoring cracks in polymer electrolyte fuel cell electrodes. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 11644-11653.	7.1	8
92	Understanding mechanical behavior and reliability of organic electronic materials. <i>MRS Bulletin</i> , 2017, 42, 115-123.	3.5	39
93	Mechanical Properties of Polymer-Fullerene Bulk Heterojunction Films: Role of Nanomorphology of Composite Films. <i>Chemistry of Materials</i> , 2017, 29, 3954-3961.	6.7	50
94	Controlled multiple neutral planes by low elastic modulus adhesive for flexible organic photovoltaics. <i>Nanotechnology</i> , 2017, 28, 194002.	2.6	38
95	Mechanism of warpage orientation rotation due to viscoelastic polymer substrates during thermal processing. <i>Microelectronics Reliability</i> , 2017, 73, 136-145.	1.7	10
96	Effect of anisotropic thermo-elastic properties of woven-fabric laminates on diagonal warpage of thin package substrates. <i>Composite Structures</i> , 2017, 176, 973-981.	5.8	8
97	Plasmonic-Tuned Flash Cu Nanowelding with Ultrafast Photochemical-Reducing and Interlocking on Flexible Plastics. <i>Advanced Functional Materials</i> , 2017, 27, 1701138.	14.9	98
98	P&I 33: Optimization of Multilayer Inorganic/Organic Thin Film Structure for Foldable Barrier Films. <i>Digest of Technical Papers SID International Symposium</i> , 2017, 48, 1757-1760.	0.3	1
99	FEM simulation of warpage orientation change of FRP polymer substrate during thermal processing. , 2017, , .		2
100	Effect of anisotropic mechanical properties of woven composite substrates on warpage orientation of printed circuit boards. , 2017, , .		0
101	Solution-Assembled Blends of Regioregularity-Controlled Polythiophenes for Coexistence of Mechanical Resilience and Electronic Performance. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 14120-14128.	8.0	25
102	Facilitated embedding of silver nanowires into conformally-coated iCVD polymer films deposited on cloth for robust wearable electronics. <i>Nanoscale</i> , 2017, 9, 3399-3407.	5.6	16
103	Cooptimization of Adhesion and Power Conversion Efficiency of Organic Solar Cells by Controlling Surface Energy of Buffer Layers. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 37395-37401.	8.0	20
104	Effects of Anisotropic Conductive Films (ACFs) Gap Heights on the Bending Reliability of Chip-In-Flex (CIF) Packages for Wearable Electronics Applications. , 2017, , .		2
105	Mechanical Stability Analysis via Neutral Mechanical Plane for High-Performance Flexible Si Nanomembrane FDSOI Device. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700618.	3.7	9
106	Temperature-Controlled Direct Imprinting of Ag Ionic Ink: Flexible Metal Grid Transparent Conductors with Enhanced Electromechanical Durability. <i>Scientific Reports</i> , 2017, 7, 11220.	3.3	16
107	The Effect of Anisotropic Conductive Films Adhesion on the Bending Reliability of Chip-in-Flex Packages for Wearable Electronics Applications. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2017, 7, 1583-1591.	2.5	21
108	Nanotransplantation Printing of Crystallographic-Orientation-Controlled Single-Crystalline Nanowire Arrays on Diverse Surfaces. <i>ACS Nano</i> , 2017, 11, 11642-11652.	14.6	16

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109	Moisture Effects on NCF Adhesion and Solder Joint Reliability of Chip-on-Board Assembly Using Cu Pillar/Sn-Ag Microbump. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2017, 7, 371-378.	2.5	1
110	Flash-Induced Self-Limited Plasmonic Welding of Silver Nanowire Network for Transparent Flexible Energy Harvester. Advanced Materials, 2017, 29, 1603473.	21.0	207
111	Extremely Robust and Patternable Electrodes for Copy-Paper-Based Electronics. ACS Applied Materials & Interfaces, 2016, 8, 19031-19037.	8.0	44
112	Effect of Nanofiber Orientation on Nanofiber Solder Anisotropic Conductive Films Joint Properties and Bending Reliability of Flex-on-Flex Assembly. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2016, 6, 1317-1329.	2.5	23
113	Mechanical Behavior of Free-Standing Fuel Cell Electrodes on Water Surface. ACS Applied Materials & Interfaces, 2016, 8, 15391-15398.	8.0	21
114	Contact-free thermal expansion measurement of very soft elastomers using digital image correlation. Polymer Testing, 2016, 51, 181-189.	4.8	35
115	Prediction of time-dependent swelling of flexible polymer substrates using hygro-mechanical finite element simulations. Soft Matter, 2016, 12, 4135-4141.	2.7	13
116	Effects of ACFs Adhesion on the Bending Reliability of Chip-in-Flex Packages for Wearable Electronics Applications. , 2016, , .		3
117	Synergetic electrode architecture for efficient graphene-based flexible organic light-emitting diodes. Nature Communications, 2016, 7, 11791.	12.8	163
118	Flexural and tensile moduli of flexible FR4 substrates. Polymer Testing, 2016, 53, 70-76.	4.8	23
119	Highly Sensitive, Flexible, and Wearable Pressure Sensor Based on a Giant Piezocapacitive Effect of Three-Dimensional Microporous Elastomeric Dielectric Layer. ACS Applied Materials & Interfaces, 2016, 8, 16922-16931.	8.0	404
120	Simultaneously Enhancing the Cohesion and Electrical Conductivity of PEDOT:PSS Conductive Polymer Films using DMSO Additives. ACS Applied Materials & Interfaces, 2016, 8, 302-310.	8.0	142
121	Bending Properties of Anisotropic Conductive Films Assembled Chip-in-Flex Packages for Wearable Electronics Applications. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2016, 6, 208-215.	2.5	31
122	Controlling Interfacial Reactions and Intermetallic Compound Growth at the Interface of a Lead-free Solder Joint with Layer-by-Layer Transferred Graphene. ACS Applied Materials & Interfaces, 2016, 8, 5679-5686.	8.0	45
123	Control of Reversible Self-Bending Behavior in Responsive Janus Microstrips. ACS Applied Materials & Interfaces, 2016, 8, 8782-8788.	8.0	28
124	Effects of the Mechanical Properties of Polymer Resin and the Conductive Ball Types of Anisotropic Conductive Films on the Bending Properties of Chip-in-Flex Package. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2016, 6, 200-207.	2.5	15
125	Healing Graphene Defects Using Selective Electrochemical Deposition: Toward Flexible and Stretchable Devices. ACS Nano, 2016, 10, 1539-1545.	14.6	47
126	Enhancing Adhesion of Screen-Printed Silver Nanopaste Films. Advanced Materials Interfaces, 2015, 2, 1500283.	3.7	19

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127	Warping Analysis of Electroplated Cu Films on Fiber-Reinforced Polymer Packaging Substrates. <i>Polymers</i> , 2015, 7, 985-1004.	4.5	25
128	Hydrogel-laden paper scaffold system for origami-based tissue engineering. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 15426-15431.	7.1	87
129	Enhancing Mechanical Properties of Highly Efficient Polymer Solar Cells Using Size-Tuned Polymer Nanoparticles. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 2668-2676.	8.0	16
130	Millipede-inspired structural design principle for high performance polysaccharide binders in silicon anodes. <i>Energy and Environmental Science</i> , 2015, 8, 1224-1230.	30.8	222
131	Adhesion improvement of graphene/copper interface using UV/ozone treatments. <i>Thin Solid Films</i> , 2015, 584, 170-175.	1.8	28
132	Tuning Mechanical and Optoelectrical Properties of Poly(3-hexylthiophene) through Systematic Regioregularity Control. <i>Macromolecules</i> , 2015, 48, 4339-4346.	4.8	194
133	Properties and Reliability of Solder Microbump Joints Between Si Chips and a Flexible Substrate. <i>Journal of Electronic Materials</i> , 2015, 44, 2458-2466.	2.2	13
134	Direct Observation of Nanoscale Pt Electrode Agglomeration at the Triple Phase Boundary. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 6036-6040.	8.0	26
135	Flexible, highly efficient all-polymer solar cells. <i>Nature Communications</i> , 2015, 6, 8547.	12.8	740
136	Synergistic enhancement and mechanism study of mechanical and moisture stability of perovskite solar cells introducing polyethylene-imine into the CH ₃ NH ₃ PbI ₃ /HTM interface. <i>Journal of Materials Chemistry A</i> , 2015, 3, 22176-22182.	10.3	80
137	Ultra-thin chip-in-flex (CIF) technology using anisotropic conductive films (ACFs) for wearable electronics applications. , 2015, , .		5
138	Penetration and lateral diffusion characteristics of polycrystalline graphene barriers. <i>Nanoscale</i> , 2014, 6, 151-156.	5.6	41
139	Large area multi-stacked lithium-ion batteries for flexible and rollable applications. <i>Journal of Materials Chemistry A</i> , 2014, 2, 10862-10868.	10.3	48
140	Superstrong encapsulated monolayer graphene by the modified anodic bonding. <i>Nanoscale</i> , 2014, 6, 547-554.	5.6	13
141	Architectural Engineering of Rod-Coil Compatibilizers for Producing Mechanically and Thermally Stable Polymer Solar Cells. <i>ACS Nano</i> , 2014, 8, 10461-10470.	14.6	82
142	Effects of hydrophobic agent content in macro-porous substrates on the fracture behavior of the gas diffusion layer for proton exchange membrane fuel cells. <i>Journal of Power Sources</i> , 2014, 270, 342-348.	7.8	13
143	High-Yield Etching-Free Transfer of Graphene: A Fracture Mechanics Approach. <i>Journal of the Microelectronics and Packaging Society</i> , 2014, 21, 59-64.	0.1	4
144	Tensile testing of ultra-thin films on water surface. <i>Nature Communications</i> , 2013, 4, 2520.	12.8	169

#	ARTICLE	IF	CITATIONS
145	Wearable Textile Battery Rechargeable by Solar Energy. Nano Letters, 2013, 13, 5753-5761.	9.1	400
146	Lithium-Ion Batteries: Mussel-Inspired Adhesive Binders for High-Performance Silicon Nanoparticle Anodes in Lithium-Ion Batteries (Adv. Mater. 11/2013). Advanced Materials, 2013, 25, 1570-1570.	21.0	8
147	Doping suppression and mobility enhancement of graphene transistors fabricated using an adhesion promoting dry transfer process. Applied Physics Letters, 2013, 103, .	3.3	13
148	Room-Temperature Nanosoldering of a Very Long Metal Nanowire Network by Conducting-Polymer-Assisted Joining for a Flexible Touch-Panel Application. Advanced Functional Materials, 2013, 23, 4171-4176.	14.9	449
149	Mechanical reliability of Cu/low-k interconnects and underfill. , 2012, , .		0
150	Interfacial toughening of solution processed Ag nanoparticle thin films by organic residuals. Nanotechnology, 2012, 23, 485704.	2.6	34
151	Direct Measurement of Adhesion Energy of Monolayer Graphene As-Grown on Copper and Its Application to Renewable Transfer Process. Nano Letters, 2012, 12, 1448-1452.	9.1	352
152	Development of inclined conductive bump (ICB) for flip-chip interconnection. , 2011, , .		1
153	Ultrathin, Flexible, and Transparent Oxide Thin-Film Transistors by Delamination and Transfer Methods for Deformable Displays. Advanced Materials Technologies, 0, , 2100431.	5.8	3