

# Taek-Soo Kim

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

138  
papers

5,528  
citations

36  
h-index

72  
g-index

157  
ext. papers

6,763  
ext. citations

10.1  
avg, IF

5.94  
L-index

#	Paper	IF	Citations
138	Enlarged tensile strain at edge of flexible substrate due to anticlastic curvature. <i>Microelectronics Reliability</i> , <b>2022</b> , 130, 114485	1.2	0
137	High-Performance, Flexible NO Chemiresistors Achieved by Design of Imine-Incorporated n-Type Conjugated Polymers.. <i>Advanced Science</i> , <b>2022</b> , e2200270	13.6	4
136	is a 3D matrix-specific mediator of mechanosensitive stem cell lineage commitment.. <i>Science Advances</i> , <b>2022</b> , 8, eabm4646	14.3	3
135	Donor-Acceptor Alternating Copolymer Compatibilizers for Thermally Stable, Mechanically Robust, and High-Performance Organic Solar Cells. <i>ACS Nano</i> , <b>2021</b> ,	16.7	7
134	Polymer Acceptors with Flexible Spacers Afford Efficient and Mechanically Robust All-Polymer Solar Cells. <i>Advanced Materials</i> , <b>2021</b> , e2107361	24	22
133	Controlling Neutral Plane of Flexible Substrates by Asymmetric Impregnation of Glass Fabric for Protecting Brittle Films on Foldable Electronics. <i>Advanced Engineering Materials</i> , <b>2021</b> , 23, 2001280	3.5	6
132	Enhanced Triboelectric Nanogenerator Based on Tungsten Disulfide via Thiolated Ligand Conjugation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 21299-21309	9.5	6
131	High-Molecular-Weight Electroactive Polymer Additives for Simultaneous Enhancement of Photovoltaic Efficiency and Mechanical Robustness in High-Performance Polymer Solar Cells. <i>Jacs Au</i> , <b>2021</b> , 1, 612-622		15
130	Tubular Hygromechanical Polymeric Brake for Soft and Compact Wearable Robots. <i>ACS Applied Polymer Materials</i> , <b>2021</b> , 3, 3206-3213	4.3	0
129	Highly efficient, heat dissipating, stretchable organic light-emitting diodes based on a MoO/Au/MoO electrode with encapsulation. <i>Nature Communications</i> , <b>2021</b> , 12, 2864	17.4	12
128	A soft and transparent contact lens for the wireless quantitative monitoring of intraocular pressure. <i>Nature Biomedical Engineering</i> , <b>2021</b> , 5, 772-782	19	38
127	Quantification of Performance Variation and Crack Evolution of Bond-Wire Interconnects Under Harsh Temperature Environments by S-Parameter Analysis. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2021</b> , 11, 990-998	1.7	0
126	Intrinsically Stretchable Organic Solar Cells with Efficiencies of over 11%. <i>ACS Energy Letters</i> , <b>2021</b> , 6, 2512-2518	20.1	25
125	Long-term reliable physical health monitoring by sweat pore-inspired perforated electronic skins. <i>Science Advances</i> , <b>2021</b> , 7,	14.3	24
124	Liquid-assisted adhesion control of graphene-copper interface for damage-free mechanical transfer. <i>Applied Surface Science</i> , <b>2021</b> , 551, 149229	6.7	3
123	Programmable Liquid Crystal Defect Arrays via Electric Field Modulation for Mechanically Functional Liquid Crystal Networks. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 36253-36261	9.5	6
122	Mechanical properties of organic semiconductors for flexible electronics <b>2021</b> , 199-223		1

121	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> , <b>2021</b> , 11, 2003367	21.8	61
120	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> , <b>2021</b> , 9, 2775-2783	13	9
119	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> , <b>2021</b> , 11, 2003382	21.8	34
118	Flexible-spacer incorporated polymer donors enable superior blend miscibility for high-performance and mechanically-robust polymer solar cells. <i>Energy and Environmental Science</i> , <b>2021</b> , 14, 4067-4076	35.4	34
117	A Flash-Induced Robust Cu Electrode on Glass Substrates and Its Application for Thin-Film LEDs. <i>Advanced Materials</i> , <b>2021</b> , 33, e2007186	24	6
116	Unveiling the Annealing-Dependent Mechanical Properties of Freestanding Indium Tin Oxide Thin Films. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 16650-16659	9.5	0
115	Simultaneous Enhanced Efficiency and Stability of Perovskite Solar Cells Using Adhesive Fluorinated Polymer Interfacial Material. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 35595-35605	9.5	8
114	Comparison of the mechanical properties of polymer blend and main-chain conjugated copolymer films with donor-acceptor heterojunctions. <i>Chemical Engineering Journal</i> , <b>2021</b> , 415, 128952	14.7	2
113	Intrinsic swelling behavior of free-standing nanoporous ionomer-bound carbon films. <i>Polymer Testing</i> , <b>2021</b> , 100, 107241	4.5	0
112	Elongation improvement of transparent and flexible surface protective coating using polydimethylsiloxane-anchored epoxy-functionalized siloxane hybrid composite for reliable out-foldable displays. <i>Composites Part B: Engineering</i> , <b>2021</b> , 225, 109313	10	2
111	Enhanced stretchability of metal/interlayer/metal hybrid electrode. <i>Nanoscale</i> , <b>2021</b> , 13, 4543-4550	7.7	2
110	Capillary-Force-Driven Switchable Delamination of Nanofilms and Its Application to Green Selective Transfer. <i>Advanced Materials Technologies</i> , <b>2021</b> , 6, 2001082	6.8	1
109	Electrical resistance change in thermally reconfigured nanoporous ionomer-bound carbon films. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 13019-13025	13	0
108	Side Chain Engineered Naphthalene Diimide-Based Terpolymer for Efficient and Mechanically Robust All-Polymer Solar Cells. <i>Chemistry of Materials</i> , <b>2021</b> , 33, 1070-1081	9.6	23
107	Human-Palm-Inspired Artificial Skin Material Enhances Operational Functionality of Hand Manipulation. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2002360	15.6	8
106	Artificial Skin: Human-Palm-Inspired Artificial Skin Material Enhances Operational Functionality of Hand Manipulation (Adv. Funct. Mater. 25/2020). <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2070161	15.6	1
105	Triad-type, multi-functional compatibilizers for enhancing efficiency, stability and mechanical robustness of polymer solar cells. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 13522-13531	13	12
104	A Study on the Flexible Chip-on-Fabric Assemblies Using Anisotropic Conductive Films and Metal-Laminated Fabric Substrates. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2020</b> , 10, 360-367	1.7	

103	Mechanically Robust All-Polymer Solar Cells from Narrow Band Gap Acceptors with Hetero-Bridging Atoms. <i>Joule</i> , <b>2020</b> , 4, 658-672	27.8	189
102	A Study on the Fabric Substrates With Fine-Pitch Laminated Cu Metal Patterns Using B-Stage Adhesive Films. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2020</b> , 10, 176-183	1.7	
101	Origin of the High Donor/Acceptor Composition Tolerance in Device Performance and Mechanical Robustness of All-Polymer Solar Cells. <i>Chemistry of Materials</i> , <b>2020</b> , 32, 582-594	9.6	38
100	An Interlocking Fibrillar Polymer Layer for Mechanical Stability of Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , <b>2020</b> , 7, 2001425	4.6	6
99	Record-efficiency flexible perovskite solar cell and module enabled by a porous-planar structure as an electron transport layer. <i>Energy and Environmental Science</i> , <b>2020</b> , 13, 4854-4861	35.4	80
98	Highly robust nanostructured carbon films by thermal reconfiguration of ionomer binding. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 24763-24773	13	2
97	Multi-directionally wrinkle-able textile OLEDs for clothing-type displays. <i>Npj Flexible Electronics</i> , <b>2020</b> , 4,	10.7	15
96	Stretchable OLEDs: Realizing Stretchable OLEDs: A Hybrid Platform Based on Rigid Island Arrays on a Stress-Relieving Bilayer Structure (Adv. Mater. Technol. 11/2020). <i>Advanced Materials Technologies</i> , <b>2020</b> , 5, 2070068	6.8	
95	A Study on the Dynamic Bending Property of Chip-on-Flex Assembly Using Anchoring Polymer Layer Anisotropic Conductive Films. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2020</b> , 10, 941-948	1.7	1
94	Highly Mobile Levitating Soft Actuator Driven by Multistimuli-Responses. <i>Advanced Materials Interfaces</i> , <b>2020</b> , 7, 2001051	4.6	7
93	Desolvation-Triggered Versatile Transfer-Printing of Pure BN Films with Thermal-Optical Dual Functionality. <i>Advanced Materials</i> , <b>2020</b> , 32, e2002099	24	4
92	Realizing Stretchable OLEDs: A Hybrid Platform Based on Rigid Island Arrays on a Stress-Relieving Bilayer Structure. <i>Advanced Materials Technologies</i> , <b>2020</b> , 5, 2000494	6.8	11
91	High-Performance Ni/Pt Composite Catalytic Anode with Ultra-Low Pt Loading for Low-Temperature Solid Oxide Fuel Cells. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , <b>2020</b> , 7, 141-150	3.8	1
90	Effects of Thickness and Crystallographic Orientation on Tensile Properties of Thinned Silicon Wafers. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2020</b> , 10, 296-303	1.7	7
89	Effects of Post-annealing and Co Interlayer Between SiNx and Cu on the Interfacial Adhesion Energy for Advanced Cu Interconnections. <i>Electronic Materials Letters</i> , <b>2020</b> , 16, 311-320	2.9	1
88	Design of ultrathin OLEDs having oxide-based transparent electrodes and encapsulation with sub-mm bending radius. <i>Organic Electronics</i> , <b>2020</b> , 82, 105704	3.5	17
87	Influence of Acceptor Type and Polymer Molecular Weight on the Mechanical Properties of Polymer Solar Cells. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 9057-9069	9.6	63
86	Wearable, Ultrawide-Range, and Bending-Insensitive Pressure Sensor Based on Carbon Nanotube Network-Coated Porous Elastomer Sponges for Human Interface and Healthcare Devices. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 23639-23648	9.5	78

85	Thermal expansion behavior of thin films expanding freely on water surface. <i>Scientific Reports</i> , <b>2019</b> , 9, 7071	4.9	8
84	Importance of Critical Molecular Weight of Semicrystalline n-Type Polymers for Mechanically Robust, Efficient Electroactive Thin Films. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 3163-3173	9.6	60
83	Direct Visualization of Cross-Sectional Strain Distribution in Flexible Devices. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 13416-13422	9.5	10
82	Role of Crack Deflection on Rate Dependent Mechanical Transfer of Multilayer Graphene and Its Application to Transparent Electrodes. <i>ACS Applied Nano Materials</i> , <b>2019</b> , 2, 1980-1985	5.6	5
81	Low-Temperature and Corrosion-Resistant Gas Diffusion Multibarrier with UV and Heat Rejection Capability-A Strategy to Ensure Reliability of Organic Electronics. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 16776-16784	9.5	9
80	Mechanical and Electrical Reliability Analysis of Flexible Si Complementary Metal-Oxide-Semiconductor Integrated Circuit. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2019</b> , 19, 6473-6480	1.3	
79	Regioregular-block-Regiorandom Poly(3-hexylthiophene) Copolymers for Mechanically Robust and High-Performance Thin-Film Transistors. <i>Macromolecules</i> , <b>2019</b> , 52, 7721-7730	5.5	25
78	Aqueous-Soluble Naphthalene Diimide-Based Polymer Acceptors for Efficient and Air-Stable All-Polymer Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 45038-45047	9.5	30
77	Effect of High Film Stress of Mo Source and Drain Electrodes on Electrical Characteristics of Al Doped InZnSnO TFTs. <i>IEEE Electron Device Letters</i> , <b>2019</b> , 40, 1760-1763	4.4	4
76	Wireless powered wearable micro light-emitting diodes. <i>Nano Energy</i> , <b>2019</b> , 55, 454-462	17.1	54
75	Performance improvement of flexible piezoelectric energy harvester for irregular human motion with energy extraction enhancement circuit. <i>Nano Energy</i> , <b>2019</b> , 58, 211-219	17.1	58
74	Effects of graphene oxide on the electromigration lifetime of lead-free solder joints. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2019</b> , 30, 2334-2341	2.1	4
73	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> , <b>2018</b> , 30, 2102-2111	9.6	65
72	Direct Graphene Transfer and Its Application to Transfer Printing Using Mechanically Controlled, Large Area Graphene/Copper Freestanding Layer. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1707102	15.6	26
71	Mechanically robust and high-performance ternary solar cells combining the merits of all-polymer and fullerene blends. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 4494-4503	13	43
70	A High Aspect Ratio Serpentine Structure for Use As a Strain-Insensitive, Stretchable Transparent Conductor. <i>Small</i> , <b>2018</b> , 14, 1702818	11	16
69	Flexible and Transparent Graphene Electrode Architecture with Selective Defect Decoration for Organic Light-Emitting Diodes. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1704435	15.6	45
68	Design of Magnetic Force Field for Trajectory Control of Levitated Diamagnetic Graphite. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , <b>2018</b> , 5, 341-347	3.8	10

67	Layer-by-Layer Assembly of Free-Standing Nanofilms by Controlled Rolling. <i>Langmuir</i> , <b>2018</b> , 34, 5831-5836	7
66	Exploiting Stacking for Stretchable Semiconducting Polymers. <i>Macromolecules</i> , <b>2018</b> , 51, 2572-2579	5.5 69
65	Stretchable thin-film transistors with molybdenum disulfide channels and graphene electrodes. <i>Nanoscale</i> , <b>2018</b> , 10, 16069-16078	7.7 15
64	Iron Gall Ink Revisited: In Situ Oxidation of Fe(II)-Tannin Complex for Fluidic-Interface Engineering. <i>Advanced Materials</i> , <b>2018</b> , 30, e1805091	24 45
63	Accelerated Degradation Due to Weakened Adhesion from Li-TFSI Additives in Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 7029-7035	9.5 91
62	A quantitative strain analysis of a flexible single-crystalline silicon membrane. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 033105	3.4 8
61	Comparison of Methods for Determining the Mechanical Properties of Semiconducting Polymer Films for Stretchable Electronics. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 8855-8862	9.5 90
60	Electromechanical diagnostic method for monitoring cracks in polymer electrolyte fuel cell electrodes. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 11644-11653	6.7 4
59	Understanding mechanical behavior and reliability of organic electronic materials. <i>MRS Bulletin</i> , <b>2017</b> , 42, 115-123	3.2 31
58	Mechanical Properties of Polymer/Bullerene Bulk Heterojunction Films: Role of Nanomorphology of Composite Films. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 3954-3961	9.6 39
57	Controlled multiple neutral planes by low elastic modulus adhesive for flexible organic photovoltaics. <i>Nanotechnology</i> , <b>2017</b> , 28, 194002	3.4 27
56	Mechanism of warpage orientation rotation due to viscoelastic polymer substrates during thermal processing. <i>Microelectronics Reliability</i> , <b>2017</b> , 73, 136-145	1.2 2
55	Effect of anisotropic thermo-elastic properties of woven-fabric laminates on diagonal warpage of thin package substrates. <i>Composite Structures</i> , <b>2017</b> , 176, 973-981	5.3 2
54	Plasmonic-Tuned Flash Cu Nanowelding with Ultrafast Photochemical-Reducing and Interlocking on Flexible Plastics. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1701138	15.6 76
53	P-133: Optimization of Multilayer Inorganic/Organic Thin Film Structure for Foldable Barrier Films. <i>Digest of Technical Papers SID International Symposium</i> , <b>2017</b> , 48, 1757-1760	0.5 1
52	FEM simulation of warpage orientation change of FRP polymer substrate during thermal processing <b>2017</b> ,	1
51	Solution-Assembled Blends of Regioregularity-Controlled Polythiophenes for Coexistence of Mechanical Resilience and Electronic Performance. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 14120-14128	9.5 22
50	Facilitated embedding of silver nanowires into conformally-coated iCVD polymer films deposited on cloth for robust wearable electronics. <i>Nanoscale</i> , <b>2017</b> , 9, 3399-3407	7.7 14

49	Cooptimization of Adhesion and Power Conversion Efficiency of Organic Solar Cells by Controlling Surface Energy of Buffer Layers. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 37395-37401	9.5	17
48	Mechanical Stability Analysis via Neutral Mechanical Plane for High-Performance Flexible Si Nanomembrane FDSOI Device. <i>Advanced Materials Interfaces</i> , <b>2017</b> , 4, 1700618	4.6	7
47	Temperature-Controlled Direct Imprinting of Ag Ionic Ink: Flexible Metal Grid Transparent Conductors with Enhanced Electromechanical Durability. <i>Scientific Reports</i> , <b>2017</b> , 7, 11220	4.9	14
46	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> , <b>2017</b> , 7, 1583-1591	1.7	14
45	Nanotransplantation Printing of Crystallographic-Orientation-Controlled Single-Crystalline Nanowire Arrays on Diverse Surfaces. <i>ACS Nano</i> , <b>2017</b> , 11, 11642-11652	16.7	12
44	Moisture Effects on NCF Adhesion and Solder Joint Reliability of Chip-on-Board Assembly Using Cu Pillar/SnAg Microbump. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2017</b> , 7, 371-378	1.7	1
43	Flash-Induced Self-Limited Plasmonic Welding of Silver Nanowire Network for Transparent Flexible Energy Harvester. <i>Advanced Materials</i> , <b>2017</b> , 29, 1603473	24	153
42	Synergetic electrode architecture for efficient graphene-based flexible organic light-emitting diodes. <i>Nature Communications</i> , <b>2016</b> , 7, 11791	17.4	134
41	Flexural and tensile moduli of flexible FR4 substrates. <i>Polymer Testing</i> , <b>2016</b> , 53, 70-76	4.5	14
40	Highly Sensitive, Flexible, and Wearable Pressure Sensor Based on a Giant Piezocapacitive Effect of Three-Dimensional Microporous Elastomeric Dielectric Layer. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 16922-31	9.5	287
39	Simultaneously Enhancing the Cohesion and Electrical Conductivity of PEDOT:PSS Conductive Polymer Films using DMSO Additives. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 302-10	9.5	93
38	Bending Properties of Anisotropic Conductive Films Assembled Chip-in-Flex Packages for Wearable Electronics Applications. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2016</b> , 6, 208-215	1.7	20
37	Controlling Interfacial Reactions and Intermetallic Compound Growth at the Interface of a Lead-free Solder Joint with Layer-by-Layer Transferred Graphene. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 5679-86	9.5	34
36	Control of Reversible Self-Bending Behavior in Responsive Janus Microstrips. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 8782-8	9.5	22
35	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. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2016</b> , 6, 200-207	1.7	10
34	Healing Graphene Defects Using Selective Electrochemical Deposition: Toward Flexible and Stretchable Devices. <i>ACS Nano</i> , <b>2016</b> , 10, 1539-45	16.7	37
33	Extremely Robust and Patternable Electrodes for Copy-Paper-Based Electronics. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 19031-7	9.5	39
32	Effect of Nanofiber Orientation on Nanofiber Solder Anisotropic Conductive Films Joint Properties and Bending Reliability of Flex-on-Flex Assembly. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2016</b> , 6, 1317-1329	1.7	19

31	Mechanical Behavior of Free-Standing Fuel Cell Electrodes on Water Surface. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 15391-8	9.5	18
30	Contact-free thermal expansion measurement of very soft elastomers using digital image correlation. <i>Polymer Testing</i> , <b>2016</b> , 51, 181-189	4.5	20
29	Prediction of time-dependent swelling of flexible polymer substrates using hygro-mechanical finite element simulations. <i>Soft Matter</i> , <b>2016</b> , 12, 4135-41	3.6	9
28	Tuning Mechanical and Optoelectrical Properties of Poly(3-hexylthiophene) through Systematic Regioregularity Control. <i>Macromolecules</i> , <b>2015</b> , 48, 4339-4346	5.5	156
27	Properties and Reliability of Solder Microbump Joints Between Si Chips and a Flexible Substrate. <i>Journal of Electronic Materials</i> , <b>2015</b> , 44, 2458-2466	1.9	9
26	Direct observation of nanoscale Pt electrode agglomeration at the triple phase boundary. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 6036-40	9.5	24
25	Flexible, highly efficient all-polymer solar cells. <i>Nature Communications</i> , <b>2015</b> , 6, 8547	17.4	638
24	Synergistic enhancement and mechanism study of mechanical and moisture stability of perovskite solar cells introducing polyethylene-imine into the CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> /HTM interface. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 22176-22182	13	68
23	Ultra-thin chip-in-flex (CIF) technology using anisotropic conductive films (ACFs) for wearable electronics applications <b>2015</b> ,		3
22	Enhancing Adhesion of Screen-Printed Silver Nanopaste Films. <i>Advanced Materials Interfaces</i> , <b>2015</b> , 2, 1500283	4.6	19
21	Warping Analysis of Electroplated Cu Films on Fiber-Reinforced Polymer Packaging Substrates. <i>Polymers</i> , <b>2015</b> , 7, 985-1004	4.5	17
20	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> , <b>2015</b> , 112, 15426-31	11.5	74
19	Enhancing mechanical properties of highly efficient polymer solar cells using size-tuned polymer nanoparticles. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 2668-76	9.5	15
18	Millipede-inspired structural design principle for high performance polysaccharide binders in silicon anodes. <i>Energy and Environmental Science</i> , <b>2015</b> , 8, 1224-1230	35.4	179
17	Adhesion improvement of graphene/copper interface using UV/ozone treatments. <i>Thin Solid Films</i> , <b>2015</b> , 584, 170-175	2.2	23
16	Penetration and lateral diffusion characteristics of polycrystalline graphene barriers. <i>Nanoscale</i> , <b>2014</b> , 6, 151-6	7.7	36
15	Large area multi-stacked lithium-ion batteries for flexible and rollable applications. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 10862-10868	13	42
14	Superstrong encapsulated monolayer graphene by the modified anodic bonding. <i>Nanoscale</i> , <b>2014</b> , 6, 547-54	7.7	11



13	Architectural engineering of rod-coil compatibilizers for producing mechanically and thermally stable polymer solar cells. <i>ACS Nano</i> , <b>2014</b> , 8, 10461-70	16.7	80
12	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> , <b>2014</b> , 270, 342-348	8.9	11
11	High-Yield Etching-Free Transfer of Graphene: A Fracture Mechanics Approach. <i>Journal of the Microelectronics and Packaging Society</i> , <b>2014</b> , 21, 59-64		4
10	Tensile testing of ultra-thin films on water surface. <i>Nature Communications</i> , <b>2013</b> , 4, 2520	17.4	113
9	Wearable textile battery rechargeable by solar energy. <i>Nano Letters</i> , <b>2013</b> , 13, 5753-61	11.5	349
8	Lithium-Ion Batteries: Mussel-Inspired Adhesive Binders for High-Performance Silicon Nanoparticle Anodes in Lithium-Ion Batteries (Adv. Mater. 11/2013). <i>Advanced Materials</i> , <b>2013</b> , 25, 1570-1570	24	7
7	Doping suppression and mobility enhancement of graphene transistors fabricated using an adhesion promoting dry transfer process. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 243504	3.4	13
6	Room-Temperature Nanosoldering of a Very Long Metal Nanowire Network by Conducting-Polymer-Assisted Joining for a Flexible Touch-Panel Application. <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 4171-4176	15.6	394
5	Interfacial toughening of solution processed Ag nanoparticle thin films by organic residuals. <i>Nanotechnology</i> , <b>2012</b> , 23, 485704	3.4	30
4	Direct measurement of adhesion energy of monolayer graphene as-grown on copper and its application to renewable transfer process. <i>Nano Letters</i> , <b>2012</b> , 12, 1448-52	11.5	301
3	Self-Powered Flexible Full-Color Display via Dielectric-Tuned Hybrimer Triboelectric Nanogenerators. <i>ACS Energy Letters</i> , 4097-4107	20.1	4
2	Ultrathin, Flexible, and Transparent Oxide Thin-Film Transistors by Delamination and Transfer Methods for Deformable Displays. <i>Advanced Materials Technologies</i> , 2100431	6.8	0
1	Molecular Engineering for Function-Tailored Interface Modifier in High-Performance Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2200758	21.8	2