

Kang-Jun Baeg

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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.

96 papers	5,981 citations	37 h-index	77 g-index
101 ext. papers	6,466 ext. citations	8.7 avg, IF	5.74 L-index

#	Paper	IF	Citations
96	Organic light detectors: photodiodes and phototransistors. <i>Advanced Materials</i> , 2013 , 25, 4267-95	24	913
95	Polymer and Organic Nonvolatile Memory Devices— <i>Chemistry of Materials</i> , 2011 , 23, 341-358	9.6	461
94	Toward printed integrated circuits based on unipolar or ambipolar polymer semiconductors. <i>Advanced Materials</i> , 2013 , 25, 4210-44	24	433
93	Organic Non-Volatile Memory Based on Pentacene Field-Effect Transistors Using a Polymeric Gate Electret. <i>Advanced Materials</i> , 2006 , 18, 3179-3183	24	267
92	Controllable Shifts in Threshold Voltage of Top-Gate Polymer Field-Effect Transistors for Applications in Organic Nano Floating Gate Memory. <i>Advanced Functional Materials</i> , 2010 , 20, 224-230	15.6	234
91	Polarity Effects of Polymer Gate Electrets on Non-Volatile Organic Field-Effect Transistor Memory. <i>Advanced Functional Materials</i> , 2008 , 18, 3678-3685	15.6	230
90	Bithiophene-imide-based polymeric semiconductors for field-effect transistors: synthesis, structure-property correlations, charge carrier polarity, and device stability. <i>Journal of the American Chemical Society</i> , 2011 , 133, 1405-18	16.4	206
89	Printed, Flexible, Organic Nano-Floating-Gate Memory: Effects of Metal Nanoparticles and Blocking Dielectrics on Memory Characteristics. <i>Advanced Functional Materials</i> , 2013 , 23, 3503-3512	15.6	181
88	Simple bar-coating process for large-area, high-performance organic field-effect transistors and ambipolar complementary integrated circuits. <i>Advanced Materials</i> , 2013 , 25, 4302-8	24	177
87	Combining electron-neutral building blocks with intramolecular "conformational locks" affords stable, high-mobility p- and n-channel polymer semiconductors. <i>Journal of the American Chemical Society</i> , 2012 , 134, 10966-73	16.4	174
86	High-Performance Top-Gated Organic Field-Effect Transistor Memory using Electrets for Monolithic Printed Flexible NAND Flash Memory. <i>Advanced Functional Materials</i> , 2012 , 22, 2915-2926	15.6	171
85	Remarkable enhancement of hole transport in top-gated N-type polymer field-effect transistors by a high-k dielectric for ambipolar electronic circuits. <i>Advanced Materials</i> , 2012 , 24, 5433-9	24	164
84	Charge injection engineering of ambipolar field-effect transistors for high-performance organic complementary circuits. <i>ACS Applied Materials & Interfaces</i> , 2011 , 3, 3205-14	9.5	137
83	A New Poly(thienylenevinylene) Derivative with High Mobility and Oxidative Stability for Organic Thin-Film Transistors and Solar Cells. <i>Advanced Materials</i> , 2009 , 21, 2808-2814	24	109
82	Control of Ambipolar and Unipolar Transport in Organic Transistors by Selective Inkjet-Printed Chemical Doping for High Performance Complementary Circuits. <i>Advanced Functional Materials</i> , 2014 , 24, 6252-6261	15.6	97
81	High speeds complementary integrated circuits fabricated with all-printed polymeric semiconductors. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2011 , 49, 62-67	2.6	96
80	Materials Design via Optimized Intramolecular Noncovalent Interactions for High-Performance Organic Semiconductors. <i>Chemistry of Materials</i> , 2016 , 28, 2449-2460	9.6	84

79	Large Enhancement of Carrier Transport in Solution-Processed Field-Effect Transistors by Fluorinated Dielectric Engineering. <i>Advanced Materials</i> , 2016 , 28, 518-26	24	69
78	Highly Soluble Poly(thienylenevinylene) Derivatives with Charge-Carrier Mobility Exceeding 1 cm ² V ⁻¹ s ⁻¹ . <i>Chemistry of Materials</i> , 2011 , 23, 4663-4665	9.6	67
77	Controlled aqueous synthesis of ultra-long copper nanowires for stretchable transparent conducting electrode. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 1441-1447	7.1	65
76	Controlled charge transport by polymer blend dielectrics in top-gate organic field-effect transistors for low-voltage-operating complementary circuits. <i>ACS Applied Materials & Interfaces</i> , 2012 , 4, 6176-6184	9.5	65
75	Synthesis, Electronic Structure, and Charge Transport Characteristics of Naphthalenediimide-Based Co-Polymers with Different Oligothiophene Donor Units. <i>Advanced Functional Materials</i> , 2014 , 24, 1151-1162	15.6	62
74	Effect of light irradiation on the characteristics of organic field-effect transistors. <i>Journal of Applied Physics</i> , 2006 , 100, 094501	2.5	58
73	Low-voltage, high speed inkjet-printed flexible complementary polymer electronic circuits. <i>Organic Electronics</i> , 2013 , 14, 1407-1418	3.5	57
72	Improved performance uniformity of inkjet printed n-channel organic field-effect transistors and complementary inverters. <i>Organic Electronics</i> , 2011 , 12, 634-640	3.5	57
71	High performance and stable N-channel organic field-effect transistors by patterned solvent-vapor annealing. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 10745-52	9.5	53
70	Stable charge storing in two-dimensional MoS ₂ nanoflake floating gates for multilevel organic flash memory. <i>Nanoscale</i> , 2014 , 6, 12315-23	7.7	52
69	Optimal Ambipolar Charge Transport of Thienylenevinylene-Based Polymer Semiconductors by Changes in Conformation for High-Performance Organic Thin Film Transistors and Inverters. <i>Chemistry of Materials</i> , 2013 , 25, 1572-1583	9.6	49
68	Effect of rubbed polyimide layer on the field-effect mobility in pentacene thin-film transistors. <i>Applied Physics Letters</i> , 2008 , 92, 052107	3.4	47
67	Synergistic High Charge-Storage Capacity for Multi-level Flexible Organic Flash Memory. <i>Scientific Reports</i> , 2015 , 5, 12299	4.9	45
66	Systematic Study of Widely Applicable N-Doping Strategy for High-Performance Solution-Processed Field-Effect Transistors. <i>Advanced Functional Materials</i> , 2016 , 26, 7886-7894	15.6	43
65	High mobility top-gated poly(3-hexylthiophene) field-effect transistors with high work-function Pt electrodes. <i>Thin Solid Films</i> , 2010 , 518, 4024-4029	2.2	43
64	Effects of gate dielectrics and their solvents on characteristics of solution-processed N-channel polymer field-effect transistors. <i>Journal of Materials Chemistry</i> , 2012 , 22, 21138		42
63	Solution-Processed Nonvolatile Organic Transistor Memory Based on Semiconductor Blends. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 8327-8336	9.5	41
62	Improved transfer of chemical-vapor-deposited graphene through modification of intermolecular interactions and solubility of poly(methylmethacrylate) layers. <i>Carbon</i> , 2014 , 66, 612-618	10.4	41

61	Flexible organic phototransistors based on a combination of printing methods. <i>Organic Electronics</i> , 2014 , 15, 2677-2684	3.5	41
60	Spray-printed organic field-effect transistors and complementary inverters. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 1500	7.1	38
59	. <i>IEEE Electron Device Letters</i> , 2013 , 34, 126-128	4.4	37
58	Organic Nano-Floating-Gate Memory with Polymer:[6,6]-Phenyl-C61Butyric Acid Methyl Ester Composite Films. <i>Japanese Journal of Applied Physics</i> , 2010 , 49, 05EB01	1.4	34
57	Flexible Electronic Systems on Plastic Substrates and Textiles for Smart Wearable Technologies. <i>Advanced Materials Technologies</i> , 2020 , 5, 2000071	6.8	31
56	Organic nano-floating-gate transistor memory with metal nanoparticles. <i>Nano Convergence</i> , 2016 , 3, 10	9.2	31
55	Electron injection enhancement by a Cs-salt interlayer in ambipolar organic field-effect transistors and complementary circuits. <i>Journal of Materials Chemistry</i> , 2012 , 22, 16979		30
54	Highly stable printed polymer field-effect transistors and inverters via polyselenophene conjugated polymers. <i>Journal of Materials Chemistry</i> , 2012 , 22, 12774		30
53	Efficient charge injection in p-type polymer field-effect transistors with low-cost molybdenum electrodes through V2O5 interlayer. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 5804-10	9.5	29
52	Synthesis and characterization of low-band-gap poly(thienylenevinylene) derivatives for polymer solar cells. <i>Journal of Materials Chemistry</i> , 2011 , 21, 11822		29
51	A thermally resistant and air-stable n-type organic semiconductor: Naphthalene diimide of 3,5-bis-trifluoromethyl aniline. <i>Synthetic Metals</i> , 2009 , 159, 2117-2121	3.6	29
50	Gradual Controlling the Work Function of Metal Electrodes by Solution-Processed Mixed Interlayers for Ambipolar Polymer Field-Effect Transistors and Circuits. <i>Advanced Functional Materials</i> , 2014 , 24, 6484-6491	15.6	28
49	Low-voltage-operated top-gate polymer thin-film transistors with high capacitance poly(vinylidene fluoride-trifluoroethylene)/poly(methyl methacrylate) dielectrics. <i>Journal of Applied Physics</i> , 2010 , 108, 102810	2.5	28
48	Charge-trap flash-memory oxide transistors enabled by copper-zirconia composites. <i>Advanced Materials</i> , 2014 , 26, 7170-7	24	26
47	Polymer Dielectrics and Orthogonal Solvent Effects for High-Performance Inkjet-Printed Top-Gated P-Channel Polymer Field-Effect Transistors. <i>ETRI Journal</i> , 2011 , 33, 887-896	1.4	26
46	Effects of Copper Oxide/Gold Electrode as the Source-Drain Electrodes in Organic Thin-Film Transistors. <i>Electrochemical and Solid-State Letters</i> , 2007 , 10, H340		26
45	Regulating charge injection in ambipolar organic field-effect transistors by mixed self-assembled monolayers. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 14493-9	9.5	23
44	Low-voltage-operated top-gate polymer thin-film transistors with high-capacitance P(VDF-TrFE)/PVDF-blended dielectrics. <i>Current Applied Physics</i> , 2011 ,	2.6	21

43	Tuning non-volatile memory characteristics via molecular doping of polymer semiconductors based on ambipolar organic field-effect transistors. <i>Organic Electronics</i> , 2018 , 58, 12-17	3.5	20
42	Rearrangement of 1D conducting nanomaterials towards highly electrically conducting nanocomposite fibres for electronic textiles. <i>Scientific Reports</i> , 2015 , 5, 9300	4.9	19
41	Simultaneous enhancement of charge density and molecular stacking order of polymer semiconductors by viologen dopants for high performance organic field-effect transistors. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 5497-5505	7.1	19
40	Templated assembly of metal nanoparticles in nanoimprinted patterns for metal nanowire fabrication. <i>Nanotechnology</i> , 2009 , 20, 355302	3.4	19
39	Monolithic Graphene Trees as Anode Material for Lithium Ion Batteries with High C-Rates. <i>Small</i> , 2015 , 11, 2774-81	11	18
38	Simultaneous enhancement of electron injection and air stability in N-type organic field-effect transistors by water-soluble polyfluorene interlayers. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 8108-14	9.5	17
37	Perfluorocyclobutane containing polymeric gate dielectric for organic thin film transistors with high on/off ratio. <i>Applied Physics Letters</i> , 2006 , 89, 202516	3.4	17
36	Favorable Molecular Orientation Enhancement in Semiconducting Polymer Assisted by Conjugated Organic Small Molecules. <i>Advanced Functional Materials</i> , 2016 , 26, 8527-8536	15.6	15
35	Charge transfer and trapping properties in polymer gate dielectrics for non-volatile organic field-effect transistor memory applications. <i>Solid-State Electronics</i> , 2009 , 53, 1165-1168	1.7	15
34	One-step transfer and integration of multifunctionality in CVD graphene by TiO ₂ /graphene oxide hybrid layer. <i>Small</i> , 2014 , 10, 2057-66	11	14
33	Synthesis and Characterization of Poly(Dithieno[3,2-b:2',3'-d]pyrrole) Derivatives Containing Thiophene Moieties and Their Application to Organic Devices. <i>Macromolecular Chemistry and Physics</i> , 2011 , 212, 2308-2318	2.6	12
32	Facile fabrication of solution-processed solid-electrolytes for high-energy-density all-solid-state-batteries by enhanced interfacial contact. <i>Scientific Reports</i> , 2020 , 10, 11923	4.9	12
31	Polymeric P ₁ Heterointerface for Solution-Processed Integrated Organic Optoelectronic Systems. <i>Advanced Optical Materials</i> , 2017 , 5, 1700655	8.1	11
30	Top-gate staggered poly(3,3'-dialkyl-quarterthiophene) organic thin-film transistors with reverse-offset-printed silver source/drain electrodes. <i>Applied Physics Letters</i> , 2012 , 101, 133306	3.4	11
29	Optimized Activation of Solution-Processed Amorphous Oxide Semiconductors for Flexible Transparent Conductive Electrodes. <i>Advanced Electronic Materials</i> , 2018 , 4, 1700386	6.4	10
28	Chemically doped three-dimensional porous graphene monoliths for high-performance flexible field emitters. <i>Nanoscale</i> , 2015 , 7, 5495-502	7.7	10
27	Inkjet-printing-based soft-etching technique for high-speed polymer ambipolar integrated circuits. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 12579-86	9.5	10
26	Nonvolatile Ferroelectric P(VDF-TrFE) Memory Transistors Based on Inkjet-Printed Organic Semiconductor. <i>ETRI Journal</i> , 2013 , 35, 734-737	1.4	10

25	Low-voltage-operating complementary-like circuits using ambipolar organic-inorganic hybrid thin-film transistors with solid-state-electrolyte gate insulator. <i>Organic Electronics</i> , 2019 , 75, 105358	3.5	9
24	Flexible high-energy-density lithium-sulfur batteries using nanocarbon-embedded fibrous sulfur cathodes and membrane separators. <i>NPG Asia Materials</i> , 2021 , 13,	10.3	9
23	Multi-layered nanocomposite dielectrics for high density organic memory devices. <i>Applied Physics Letters</i> , 2015 , 106, 043302	3.4	8
22	Versatile Solution-Processed Organic-Inorganic Hybrid Superlattices for Ultraflexible and Transparent High-Performance Optoelectronic Devices. <i>Advanced Functional Materials</i> , 2021 , 31, 2103285	15.6	8
21	Controlled ambipolar charge transport of polymer semiconductors by viologen-doping for complementary-like electronic circuits. <i>Organic Electronics</i> , 2018 , 59, 224-229	3.5	7
20	Enhanced ambipolar charge transport in staggered carbon nanotube field-effect transistors for printed complementary-like circuits. <i>Current Applied Physics</i> , 2017 , 17, 541-547	2.6	6
19	Ultrafast Heating for Intrinsic Properties of Atomically Thin Two-Dimensional Materials on Plastic Substrates. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 31222-31230	9.5	5
18	Synthesis of poly(p-phenylene-vinylene) derivatives containing an oxadiazole pendant group and their applications to organic electronic devices. <i>Journal of Nanoscience and Nanotechnology</i> , 2013 , 13, 3321-30	1.3	4
17	Organic Electronics: Printed, Flexible, Organic Nano-Floating-Gate Memory: Effects of Metal Nanoparticles and Blocking Dielectrics on Memory Characteristics (Adv. Funct. Mater. 28/2013). <i>Advanced Functional Materials</i> , 2013 , 23, 3482-3482	15.6	4
16	Multimodal Capturing of Polysulfides by Phosphorus-Doped Carbon Composites for Flexible High-Energy-Density Lithium-Sulfur Batteries.. <i>Small</i> , 2022 , e2200326	11	4
15	High Throughput Bar-Coating Processed Organic-Inorganic Hybrid Multi-Layers for Gas Barrier Thin-Films. <i>Journal of Nanoscience and Nanotechnology</i> , 2019 , 19, 4299-4304	1.3	3
14	Effect of gate electrode conductivity on operation frequency of inkjet-printed complementary polymer ring oscillators. <i>Thin Solid Films</i> , 2013 , 546, 141-146	2.2	3
13	Effect of curing temperature on nano-silver paste ink for organic thin-film transistors. <i>Journal of Nanoscience and Nanotechnology</i> , 2012 , 12, 3272-5	1.3	3
12	All-Printed Paper-Based Micro-supercapacitors Using Water-Based Additive-Free Oxidized Single-Walled Carbon Nanotube Pastes. <i>ACS Applied Energy Materials</i> ,	6.1	3
11	Reduction Treatment of Molecular-Doped Polymer Semiconductors for High-Performance N-Channel Organic Field-Effect Transistors. <i>Journal of the Korean Physical Society</i> , 2019 , 75, 821-826	0.6	3
10	Solution-processed flexible nonvolatile organic field-effect transistor memory using polymer electret. <i>Organic Electronics</i> , 2021 , 99, 106331	3.5	2
9	Diels-Alder Crosslinked Block-Copolymer Gate Dielectrics for Low Voltage Operated Top-Gate Organic Field-Effect Transistors. <i>Molecular Crystals and Liquid Crystals</i> , 2014 , 598, 69-77	0.5	1
8	Mass production of polyfluorene nanowires using a melt-assisted wetting method. <i>Journal of Nanoscience and Nanotechnology</i> , 2012 , 12, 1260-4	1.3	1

7	Organic Complementary Circuits: Remarkable Enhancement of Hole Transport in Top-Gated N-Type Polymer Field-Effect Transistors by a High-k Dielectric for Ambipolar Electronic Circuits (Adv. Mater. 40/2012). <i>Advanced Materials</i> , 2012 , 24, 5402-5402	24	1
6	A Novel Strategy to Overcome the Hurdle for Commercial All-Solid-State Batteries via Low-Cost Synthesis of Sulfide Solid Electrolytes (Small Methods 11/2021). <i>Small Methods</i> , 2021 , 5, 2170058	12.8	1
5	Facile Preparation of Polyacrylic Acid-Bentonite Nanocomposite Inks for Gas Barrier Thin-Films with Ultrasonic Treatment. <i>Journal of the Korean Physical Society</i> , 2018 , 73, 973-977	0.6	1
4	A Novel Strategy to Overcome the Hurdle for Commercial All-Solid-State Batteries via Low-Cost Synthesis of Sulfide Solid Electrolytes.. <i>Small Methods</i> , 2021 , 5, e2100793	12.8	1
3	Inkjet-Printed Electronic Circuits Based on Organic Semiconductors 2015 , 345-364		0
2	Minimizing Temperature Gradient in Photonic Sintering for Defect-Free High-Conductivity Cu-Based Printed Patterns by Bidirectional Irradiation. <i>Advanced Materials Interfaces</i> , 2021 , 8, 2100769	4.6	0
1	Air-stable ambipolarity of nanofibril polymer semiconductors in staggered organic field-effect transistors. <i>Journal of the Korean Physical Society</i> , 2021 , 79, 468-476	0.6	0