Tae-Wook Kim

List of Publications by Year
in descending order

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85 papers	4,413 citations	101543 36 h-index	106344 65 g-index
89 all docs	89 docs citations	89 times ranked	6386 citing authors

#	Article	IF	Citations
1	Tailoring the internal structure of porous copper film via size-controlled copper nanosheets for electromagnetic interference shielding. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2022, 278, 115611.	3.5	5
2	Integration of multiple electronic components on a microfibre towards an emerging electronic textile platform. Nature Communications, 2022, 13, .	12.8	27
3	Sandwich-Doping for a Large Schottky Barrier and Long-Term Stability in Graphene/Silicon Schottky Junction Solar Cells. ACS Omega, 2021, 6, 3973-3979.	3.5	7
4	Performance enhancement of graphene assisted CNT/Cu composites for lightweight electrical cables. Carbon, 2021, 179, 53-59.	10.3	15
5	Recent Advances in Fiber-Shaped Electronic Devices for Wearable Applications. Applied Sciences (Switzerland), 2021, 11, 6131.	2.5	21
6	Hierarchical Porous Film with Layer-by-Layer Assembly of 2D Copper Nanosheets for Ultimate Electromagnetic Interference Shielding. ACS Nano, 2021, 15, 829-839.	14.6	85
7	Structure-controllable growth of nitrogenated graphene quantum dots via solvent catalysis for selective C-N bond activation. Nature Communications, 2021, 12, 5879.	12.8	25
8	Light-sensitive charge storage medium with spironaphthooxazine molecule-polymer blends for dual-functional organic phototransistor memory. Organic Electronics, 2020, 78, 105554.	2.6	8
9	One-dimensional organic artificial multi-synapses enabling electronic textile neural network for wearable neuromorphic applications. Science Advances, 2020, 6, .	10.3	102
10	Triboelectric effect of surface morphology controlled laser induced graphene. Journal of Materials Chemistry A, 2020, 8, 19822-19832.	10.3	34
11	Molecular engineering of a porphyrin-based hierarchical superstructure: planarity control of a discotic metallomesogen for high thermal conductivity. Materials Horizons, 2020, 7, 2635-2642.	12.2	13
12	Layer-Selective Synthesis of MoS₂ and WS₂ Structures under Ambient Conditions for Customized Electronics. ACS Nano, 2020, 14, 8485-8494.	14.6	41
13	Tunable rectification in a molecular heterojunction with two-dimensional semiconductors. Nature Communications, 2020, 11, 1412.	12.8	19
14	Allâ€Solidâ€State Organic Schmitt Trigger Implemented by Twin Twoâ€inâ€One Ferroelectric Memory Transistors. Advanced Electronic Materials, 2020, 6, 1901263.	5.1	5
15	Shallow and Deep Trap State Passivation for Low-Temperature Processed Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 1396-1403.	17.4	75
16	Direct-patterned copper/poly(ethylene oxide) composite electrodes for organic thin-film transistors through cone-jet mode by electrohydrodynamic jet printing. Journal of Industrial and Engineering Chemistry, 2020, 85, 269-275.	5.8	19
17	Meyer-Rod Coated 2D Single-Crystalline Copper Nanoplate Film with Intensive Pulsed Light for Flexible Electrode. Coatings, 2020, 10, 88.	2.6	3
18	Interplay Among Thermoelectric Properties, Atmospheric Stability, and Electronic Structures in Solutionâ€Deposited Thin Films of P(Na_X[Niett]). Advanced Electronic Materials, 2020, 6, 1901172.	5.1	5

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19	Unsymmetrical Small Molecules for Broad-Band Photoresponse and Efficient Charge Transport in Organic Phototransistors. ACS Applied Materials & Interfaces, 2020, 12, 25066-25074.	8.0	16
20	Heterostructure Arrays: Direct Synthesis of a Selfâ€Assembled WSe₂/MoS₂ Heterostructure Array and its Optoelectrical Properties (Adv. Mater. 43/2019). Advanced Materials, 2019, 31, 1970309.	21.0	0
21	Direct Synthesis of a Selfâ€Assembled WSe₂/MoS₂ Heterostructure Array and its Optoelectrical Properties. Advanced Materials, 2019, 31, e1904194.	21.0	47
22	Two-in-One Device with Versatile Compatible Electrical Switching or Data Storage Functions Controlled by the Ferroelectricity of P(VDF-TrFE) via Photocrosslinking. ACS Applied Materials & Interfaces, 2019, 11, 25358-25368.	8.0	7
23	Rareâ€Earthâ€Elementâ€Ytterbiumâ€Substituted Leadâ€Free Inorganic Perovskite Nanocrystals for Optoelectronic Applications. Advanced Materials, 2019, 31, e1901716.	21.0	81
24	Low-Voltage Organic Transistor Memory Fiber with a Nanograined Organic Ferroelectric Film. ACS Applied Materials & Interfaces, 2019, 11, 22575-22582.	8.0	33
25	Hierarchical Hybrid Nanostructures Constructed by Fullerene and Molecular Tweezer. ACS Nano, 2019, 13, 6101-6112.	14.6	14
26	Highly Stable and Ultrafast Hydrogen Gas Sensor Based on 15 nm Nanogaps Switching in a Palladiumâ€“Gold Nanoribbons Array. Advanced Materials Interfaces, 2019, 6, 1801442.	3.7	18
27	Ultrathin Conformable Organic Artificial Synapse for Wearable Intelligent Device Applications. ACS Applied Materials & Interfaces, 2019, 11, 1071-1080.	8.0	106
28	Ultrastrong Grapheneâ€“Copper Coreâ€“Shell Wires for High-Performance Electrical Cables. ACS Nano, 2018, 12, 2803-2808.	14.6	52
29	Metal nanofibrils embedded in long free-standing carbon nanotube fibers with a high critical current density. NPG Asia Materials, 2018, 10, 146-155.	7.9	23
30	2D Singleâ€Crystalline Copper Nanoplates as a Conductive Filler for Electronic Ink Applications. Small, 2018, 14, 1703312.	10.0	47
31	Enhancement of Adsorption Performance for Organic Molecules by Combined Effect of Intermolecular Interaction and Morphology in Porous rGO-Incorporated Hydrogels. ACS Applied Materials & Interfaces, 2018, 10, 17335-17344.	8.0	21
32	Large area thermal light emission from autonomously formed suspended graphene arrays. Carbon, 2018, 136, 217-223.	10.3	1
33	High Efficiency Low-Temperature Processed Perovskite Solar Cells Integrated with Alkali Metal Doped ZnO Electron Transport Layers. ACS Energy Letters, 2018, 3, 1241-1246.	17.4	77
34	Hybrid dielectrics composed of Al2O3 and phosphonic acid self-assembled monolayers for performance improvement in low voltage organic field effect transistors. Nano Convergence, 2018, 5, 20.	12.1	22
35	Synaptic Plasticity and Metaplasticity of Biological Synapse Realized in a KNbO₃ Memristor for Application to Artificial Synapse. ACS Applied Materials & Interfaces, 2018, 10, 25673-25682.	8.0	85
36	Degradation mechanism of planar-perovskite solar cells: correlating evolution of iodine distribution and photocurrent hysteresis. Journal of Materials Chemistry A, 2017, 5, 4527-4534.	10.3	69

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37	Highâ€Efficiency Photovoltaic Devices using Trapâ€Controlled Quantumâ€Dot Ink prepared via Phaseâ€Transfer Exchange. Advanced Materials, 2017, 29, 1605756.	21.0	114
38	Porous copperâ€“graphene heterostructures for cooling of electronic devices. Nanoscale, 2017, 9, 7565-7569.	5.6	17
39	ZnO films using a precursor solution irradiated with an electron beam as the cathode interfacial layer in inverted polymer solar cells. RSC Advances, 2017, 7, 26689-26696.	3.6	9
40	An All-Organic Composite System for Resistive Change Memory via the Self-Assembly of Plastic-Crystalline Molecules. ACS Applied Materials & Interfaces, 2017, 9, 2730-2738.	8.0	10
41	Structurally Engineered Nanoporous Ta₂O_{5â€“x} Selector-Less Memristor for High Uniformity and Low Power Consumption. ACS Applied Materials & Interfaces, 2017, 9, 34015-34023.	8.0	18
42	Diphenylâ€2â€pyridylamineâ€Substituted Porphyrins as Holeâ€Transporting Materials for Perovskite Solar Cells. ChemSusChem, 2017, 10, 3780-3787.	6.8	40
43	Controllable Switching Filaments Prepared via Tunable and Well-Defined Single Truncated Conical Nanopore Structures for Fast and Scalable SiO_x Memory. Nano Letters, 2017, 17, 7462-7470.	9.1	21
44	Highly efficient air-stable colloidal quantum dot solar cells by improved surface trap passivation. Nano Energy, 2017, 39, 86-94.	16.0	72
45	Characterization of PI:PCBM organic nonvolatile resistive memory devices under thermal stress. Organic Electronics, 2016, 33, 48-54.	2.6	22
46	Flexible Nanoporous WO_{3â€“x} Nonvolatile Memory Device. ACS Nano, 2016, 10, 7598-7603.	14.6	114
47	Facile and Purification-Free Synthesis of Nitrogenated Amphiphilic Graphitic Carbon Dots. Chemistry of Materials, 2016, 28, 1481-1488.	6.7	74
48	One step synthesis of Au nanoparticle-cyclized polyacrylonitrile composite films and their use in organic nano-floating gate memory applications. Journal of Materials Chemistry C, 2016, 4, 1511-1516.	5.5	14
49	Resistive switching characteristics of ZnOâ€“graphene quantum dots and their use as an active component of an organic memory cell with one diode-one resistor architecture. Organic Electronics, 2015, 18, 77-83.	2.6	18
50	Three-Dimensional Porous Copper-Graphene Heterostructures with Durability and High Heat Dissipation Performance. Scientific Reports, 2015, 5, 12710.	3.3	40
51	Fabrication of spray-printed organic non-volatile memory devices for low cost electronic applications. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2015, 191, 51-56.	3.5	9
52	Flexible and twistable non-volatile memory cell array with all-organic one diodeâ€“one resistor architecture. Nature Communications, 2013, 4, 2707.	12.8	156
53	In-Depth Study on the Effect of Active-Area Scale-Down of Solution-Processed $hbox{TiO}_{x}$. IEEE Electron Device Letters, 2012, 33, 869-871.	3.9	4
54	Allâ€Organic Photopatterned One Diodeâ€One Resistor Cell Array for Advanced Organic Nonvolatile Memory Applications. Advanced Materials, 2012, 24, 828-833.	21.0	68

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55	All-Organic Photopatterned One Diode-One Resistor Cell Array for Advanced Organic Nonvolatile Memory Applications (Adv. Mater. 6/2012). Advanced Materials, 2012, 24, 827-827.	21.0	2
56	n-Doping of thermally polymerizable fullerenes as an electron transporting layer for inverted polymer solar cells. Journal of Materials Chemistry, 2011, 21, 6956.	6.7	60
57	Electrical transport characteristics through molecular layers. Journal of Materials Chemistry, 2011, 21, 18117.	6.7	48
58	Organic Resistive Memory Devices: Performance Enhancement, Integration, and Advanced Architectures. Advanced Functional Materials, 2011, 21, 2806-2829.	14.9	432
59	A New Approach for Molecular Electronic Junctions with a Multilayer Graphene Electrode. Advanced Materials, 2011, 23, 755-760.	21.0	171
60	Stable Switching Characteristics of Organic Nonvolatile Memory on a Bent Flexible Substrate. Advanced Materials, 2010, 22, 3071-3075.	21.0	164
61	Threeâ€Dimensional Integration of Organic Resistive Memory Devices. Advanced Materials, 2010, 22, 5048-5052.	21.0	213
62	Graphene oxide nanosheets based organic field effect transistor for nonvolatile memory applications. Applied Physics Letters, 2010, 97, .	3.3	90
63	STATISTICAL ANALYSIS OF ELECTRONIC TRANSPORT PROPERTIES OF ALKANETHIOL MOLECULAR JUNCTIONS. , 2010, , 121-150.		0
64	Resistive switching characteristics of polymer non-volatile memory devices in a scalable via-hole structure. Nanotechnology, 2009, 20, 025201.	2.6	47
65	One Transistorâ€“One Resistor Devices for Polymer Nonâ€Volatile Memory Applications. Advanced Materials, 2009, 21, 2497-2500.	21.0	100
66	Nanoscale Resistive Switching of a Copperâ€“Carbon-Mixed Layer for Nonvolatile Memory Applications. IEEE Electron Device Letters, 2009, 30, 302-304.	3.9	34
67	Resistive switching characteristics of solution-processible TiO<inf>x</inf> using nano-scale via-hole structures. , 2009, , .		0
68	Evolution of nanomorphology and anisotropic conductivity in solvent-modified PEDOT:PSS films for polymeric anodes of polymer solar cells. Journal of Materials Chemistry, 2009, 19, 9045.	6.7	282
69	Transient reverse current phenomenon in a p-n heterojunction comprised of poly(3,4-ethylene-dioxythiophene):poly(styrene-sulfonate) and ZnO nanowall. Applied Physics Letters, 2008, 93, .	3.3	55
70	Reliable Organic Nonvolatile Memory Device Using a Polyfluorene-Derivative Single-Layer Film. IEEE Electron Device Letters, 2008, 29, 852-855.	3.9	16
71	Effects of Metalâ^'Molecule Contact and Molecular Structure on Molecular Electronic Conduction in Nonresonant Tunneling Regime: Alkyl versus Conjugated Molecules. Journal of Physical Chemistry C, 2008, 112, 13010-13016.	3.1	55
72	A direct metal transfer method for cross-bar type polymer non-volatile memory applications. Nanotechnology, 2008, 19, 405201.	2.6	21

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73	The Effect of Nanoscale Nonuniformity of Oxygen Vacancy on Electrical and Reliability Characteristics of $hbox{HfO}_{2}$ MOSFET Devices. IEEE Electron Device Letters, 2008, 29, 54-56.	3.9	12
74	Reversible switching characteristics of polyfluorene-derivative single layer film for nonvolatile memory devices. Applied Physics Letters, 2008, 92, .	3.3	66
75	Channel-length and gate-bias dependence of contact resistance and mobility for In2O3 nanowire field effect transistors. Journal of Applied Physics, 2007, 102, 084508.	2.5	28
76	Influence of metal-molecule contacts on decay coefficients and specific contact resistances in molecular junctions. Physical Review B, 2007, 76, .	3.2	67
77	Effects of channel-length scaling on In2O3 nanowire field effect transistors studied by conducting atomic force microscopy. Applied Physics Letters, 2007, 90, 173106.	3.3	27
78	Quantum confinement effect in crystalline silicon quantum dots in silicon nitride grown using SiH4 and NH3. Applied Physics Letters, 2006, 88, 123102.	3.3	227
79	Comparisons of charge transport through alkane- monothiols and dithiols. , 2006, , .		0
80	Electronic transport in indium oxide nanowire field effect transistors. , 2006, , .		0
81	Length-dependent electronic transport through alkane-dithiol self-assembled monolayer junctions. , 2006, , .		0
82	Charge transport of alkanethiol self-assembled monolayers in micro-via hole devices. Journal of Nanoscience and Nanotechnology, 2006, 6, 3487-90.	0.9	0
83	Structure and Electrocatalysis of Sputtered RuPt Thin-Film Electrodes. Journal of Physical Chemistry B, 2005, 109, 12845-12849.	2.6	11
84	Photoluminescence of silicon quantum dots in silicon nitride grown by NH3 and SiH4. Applied Physics Letters, 2005, 86, 091908.	3.3	120
85	High density silicon nanocrystal embedded in sin prepared by low energy (>500eV) SiH/sub 4/ plasma immersion ion implantation for non-volatile memory applications. , 0, , .		6