BongSoo Kim

List of Publications by Year in descending order

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97	2,948	279798	175258
papers	citations	23 h-index	52 g-index

99	99	99	4399
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Modeling ligand crosslinking for interlocking quantum dots in thin-films. Journal of Materials Chemistry C, 2022, 10, 7132-7140.	5.5	6
2	Impact of Aryl End Group Engineering of Donor Polymers on the Morphology and Efficiency of Halogen-Free Solvent-Processed Nonfullerene Organic Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 10616-10626.	8.0	8
3	Highly Sensitive and Durable Organic Photodiodes Based on Long-Term Storable NiO_x Nanoparticles. ACS Applied Materials & Interfaces, 2022, 14, 14410-14421.	8.0	1
4	Immobilization of Conjugated Polymer Domains for Highly Stable Non-Fullerene-Based Organic Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 23474-23486.	8.0	10
5	Impact of Molecular Weight on Molecular Doping Efficiency of Conjugated Polymers and Resulting Thermoelectric Performances. Advanced Functional Materials, 2022, 32, .	14.9	13
6	Twoâ€Color Stripâ€Patterned White OLEDs: Tunable Colorâ€Temperature via Pattern Dimension Control. Advanced Optical Materials, 2022, 10, .	7.3	5
7	Tetrabranched Photo-Crosslinker Enables Micrometer-Scale Patterning of Light-Emitting Super Yellow for High-Resolution OLEDs. ACS Photonics, 2021, 8, 2519-2528.	6.6	10
8	Unprecedented Longâ€Term Thermal Stability of 1D/2A Terpolymerâ€Based Polymer Solar Cells Processed with Nonhalogenated Solvent. Solar Rrl, 2021, 5, 2100513.	5.8	7
9	Quantum mechanical/molecular mechanical approach for the simulation of UVâ€“Vis absorption spectra of Ï€-conjugated oligomers. Journal of Molecular Liquids, 2021, 341, 117406.	4.9	1
10	Impact of symmetry-breaking of non-fullerene acceptors for efficient and stable organic solar cells. Chemical Science, 2021, 12, 14083-14097.	7.4	27
11	Positional Effect of the 2-Ethylhexyl Carboxylate Side Chain on the Thiophene Ï€-Bridge of Nonfullerene Acceptors for Efficient Organic Solar Cells. ACS Applied Energy Materials, 2021, 4, 11675-11683.	5.1	5
12	Improvement in performance of inverted organic solar cell by rare earth element lanthanum doped ZnO electron buffer layer. Materials Chemistry and Physics, 2020, 240, 122076.	4.0	26
13	Functionalized Organic Material Platform for Realization of Ternary Logic Circuit. ACS Applied Materials & Interfaces, 2020, 12, 6119-6126.	8.0	17
14	Orientation Control of Semiconducting Polymers Using Microchannel Molds. ACS Nano, 2020, 14, 12951-12961.	14.6	13
15	Influence of 3D morphology on the performance of all-polymer solar cells processed using environmentally benign nonhalogenated solvents. Nano Energy, 2020, 77, 105106.	16.0	11
16	pâ€CuInS₂/nâ€Polymer Semiconductor Heterojunction for Photoelectrochemical Hydrogen Evolution. ChemSusChem, 2020, 13, 6651-6659.	6.8	8
17	High-resolution patterning of colloidal quantum dots via non-destructive, light-driven ligand crosslinking. Nature Communications, 2020, 11, 2874.	12.8	114
18	Universal three-dimensional crosslinker for all-photopatterned electronics. Nature Communications, 2020, 11, 1520.	12.8	65

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19	Nonequilibrium kinetics of excess defect generation and dynamic scaling in the Ising spin chain under slow cooling. Physical Review E, 2020, 102, 012114.	2.1	4
20	New Insights into the Photodegradation Mechanism of the PTB7-Th Film: Photooxidation of Ï€-Conjugated Backbone upon Sunlight Illumination. Journal of Physical Chemistry C, 2020, 124, 2762-2770.	3.1	23
21	Transparent and Colorless Polyimides Containing Multiple Trifluoromethyl Groups as Gate Insulators for Flexible Organic Transistors with Superior Electrical Stability. ACS Applied Materials & Interfaces, 2020, 12, 18739-18747.	8.0	58
22	Organic Electronics: Universal Route to Impart Orthogonality to Polymer Semiconductors for Subâ€Micrometer Tandem Electronics (Adv. Mater. 28/2019). Advanced Materials, 2019, 31, 1970204.	21.0	0
23	Low-voltage, high-performance polymeric field-effect transistors based on self-assembled monolayer-passivated HfOx dielectrics: Correlation between trap density, carrier mobility, and operation voltage. Organic Electronics, 2019, 74, 135-143.	2.6	10
24	Surface and Interfacial Morphology of Bulk Heterojunction Layers in Organic Solar Cells with Solvent Additive. Journal of the Korean Physical Society, 2019, 75, 498-502.	0.7	0
25	The 3D morphological stability of P3HT nanowire-based bulk heterojunction thin films against light irradiation quantitatively resolved by TEM tomography. Journal of Materials Chemistry A, 2019, 7, 2027-2033.	10.3	7
26	Wafer-scale and patternable synthesis of NbS₂ for electrodes of organic transistors and logic gates. Journal of Materials Chemistry C, 2019, 7, 8599-8606.	5.5	6
27	Universal Route to Impart Orthogonality to Polymer Semiconductors for Subâ€Micrometer Tandem Electronics. Advanced Materials, 2019, 31, e1901400.	21.0	16
28	Improvement in performance of inverted polymer solar cells by interface engineering of ALD ZnS on ZnO electron buffer layer. Applied Surface Science, 2019, 481, 1442-1448.	6.1	23
29	Highly Stretchable, Highâ€Mobility, Freeâ€Standing Allâ€Organic Transistors Modulated by Solidâ€State Elastomer Electrolytes. Advanced Functional Materials, 2019, 29, 1808909.	14.9	33
30	Regio-regular alternating diketopyrrolopyrrole-based D₁â€“Aâ€“D₂â€“A terpolymers for the enhanced performance of polymer solar cells. RSC Advances, 2019, 9, 42096-42109.	3.6	3
31	Poly(N-isopropylacrylamide-co-methacrylic acid) Interfacial Layer for Efficient and Stable Inverted Organic Solar Cells. Journal of Physical Chemistry C, 2019, 123, 2755-2765.	3.1	6
32	Difluorobenzothiadiazole and Selenophene-Based Conjugated Polymer Demonstrating an Effective Hole Mobility Exceeding 5 cm² V^{â€“1} s^{â€“1} with Solid-State Electrolyte Dielectric. ACS Applied Materials & Interfaces, 2018, 10, 32492-32500.	8.0	22
33	Simple Solvent Engineering for High-Mobility and Thermally Robust Conjugated Polymer Nanowire Field-Effect Transistors. ACS Applied Materials & Interfaces, 2018, 10, 29824-29830.	8.0	25
34	Highly Sensitive Flexible NH₃ Sensors Based on Printed Organic Transistors with Fluorinated Conjugated Polymers. ACS Applied Materials & Interfaces, 2017, 9, 7322-7330.	8.0	59
35	Photoresponsive Transistors Based on a Dual Acceptor-Containing Low-Bandgap Polymer. ACS Applied Materials & Interfaces, 2017, 9, 19011-19020.	8.0	19
36	High-Performance Polymer Semiconductor-Based Nonvolatile Memory Cells with Nondestructive Read-Out. Journal of Physical Chemistry C, 2017, 121, 24352-24357.	3.1	7

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37	A Nonchlorinated Solvent-Processable Fluorinated Planar Conjugated Polymer for Flexible Field-Effect Transistors. ACS Applied Materials & Interfaces, 2017, 9, 28817-28827.	8.0	20
38	Structureâ€“Property Relationships of Semiconducting Polymers for Flexible and Durable Polymer Field-Effect Transistors. ACS Applied Materials & Interfaces, 2017, 9, 40503-40515.	8.0	31
39	Balancing intermolecular interactions by variation of pendent alkyl chains for high performance organic photovoltaics. Dyes and Pigments, 2017, 137, 445-455.	3.7	6
40	Superâ€Antireflective Structure Films with Precisely Controlled Refractive Index Profile. Advanced Optical Materials, 2017, 5, 1600616.	7.3	16
41	Processing temperature control of a diketopyrrolopyrrole-alt-thieno[2,3-b]thiophene polymer for high-mobility thin-film transistors and polymer solar cells with high open-circuit voltages. Polymer, 2016, 105, 79-87.	3.8	7
42	Multi-scale dynamics simulation of protein based on the generalized Langevin equation combined with 3D-RISM theory. Journal of Molecular Liquids, 2016, 217, 23-28.	4.9	7
43	Synergistic effects of solvent and polymer additives on solar cell performance and stability of small molecule bulk heterojunction solar cells. Journal of Materials Chemistry A, 2016, 4, 18383-18391.	10.3	17
44	Effects of Backbone Planarity and Tightly Packed Alkyl Chains in the Donorâ€“Acceptor Polymers for High Photostability. Macromolecules, 2016, 49, 7844-7856.	4.8	39
45	A new rigid planar low band gap PTTDPP-DT-DTT polymer for organic transistors and performance improvement through the use of a binary solvent system. Dyes and Pigments, 2016, 126, 138-146.	3.7	15
46	Low-Band-Gap Polymer-Based Ambipolar Transistors and Inverters Fabricated Using a Flow-Coating Method. Journal of Physical Chemistry C, 2016, 120, 13865-13872.	3.1	15
47	Organic Semiconductor-Containing Supramolecules: Effect of Small Molecule Crystallization and Molecular Packing. Macromolecules, 2016, 49, 833-843.	4.8	9
48	Bar-coated high-performance organic thin-film transistors based on ultrathin PDFDT polymer with molecular weight independence. Organic Electronics, 2016, 29, 88-93.	2.6	15
49	Light Trapping: Toward Perfect Light Trapping in Thinâ€Film Photovoltaic Cells: Full Utilization of the Dual Characteristics of Light (Advanced Optical Materials 12/2015). Advanced Optical Materials, 2015, 3, 1656-1656.	7.3	0
50	Toward Perfect Light Trapping in Thinâ€Film Photovoltaic Cells: Full Utilization of the Dual Characteristics of Light. Advanced Optical Materials, 2015, 3, 1697-1702.	7.3	25
51	High performance inverted polymer solar cells using ultrathin atomic layer deposited TiO2 films. Synthetic Metals, 2015, 207, 31-34.	3.9	11
52	Structural and morphological tuning of dithienobenzodithiophene-core small molecules for efficient solution processed organic solar cells. Dyes and Pigments, 2015, 115, 23-34.	3.7	22
53	pn-Heterojunction Effects of Perylene Tetracarboxylic Diimide Derivatives on Pentacene Field-Effect Transistor. ACS Applied Materials & Interfaces, 2015, 7, 2025-2031.	8.0	17
54	High Performance of Low Band Gap Polymer-Based Ambipolar Transistor Using Single-Layer Graphene Electrodes. ACS Applied Materials & Interfaces, 2015, 7, 6002-6012.	8.0	26

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55	Brownian dynamics: From glassy to trivial. Physical Review E, 2015, 91, 022130.	2.1	8
56	Well-Balanced Carrier Mobilities in Ambipolar Transistors Based on Solution-Processable Low Band Gap Small Molecules. Journal of Physical Chemistry C, 2015, 119, 16414-16423.	3.1	10
57	Modulation of optical and electronic properties of quinoxailineâ€based conjugated polymers for organic photovoltaic cells. Journal of Polymer Science Part A, 2015, 53, 1904-1914.	2.3	5
58	A Highly Planar Fluorinated Benzothiadiazoleâ€Based Conjugated Polymer for Highâ€Performance Organic Thinâ€Film Transistors. Advanced Materials, 2015, 27, 3045-3052.	21.0	159
59	Equilibrium dynamics of the Dean-Kawasaki equation: Mode-coupling theory and its extension. Physical Review E, 2014, 89, 012150.	2.1	29
60	Correlation between Polymer Structure and Polymer:Fullerene Blend Morphology and Its Implications for High Performance Polymer Solar Cells. Journal of Physical Chemistry C, 2014, 118, 2237-2244.	3.1	14
61	Carrier Lifetime Extension via the Incorporation of Robust Hole/Electron Blocking Layers in Bulk Heterojunction Polymer Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 333-339.	8.0	16
62	High Crystalline Dithienosilole-Cored Small Molecule Semiconductor for Ambipolar Transistor and Nonvolatile Memory. ACS Applied Materials & Interfaces, 2014, 6, 6589-6597.	8.0	31
63	Nonequilibrium critical dynamics of two dimensional interacting monomer-dimer model: non-Ising criticality. Journal of Statistical Mechanics: Theory and Experiment, 2014, 2014, P08011.	2.3	0
64	Effect of asymmetric solubility of diketopyrrolopyrrole-based polymers and PC71BMs in a binary solvent system on the performance of bulk heterojunction solar cells. Solar Energy Materials and Solar Cells, 2014, 124, 232-240.	6.2	10
65	Nanoscopic Management of Molecular Packing and Orientation of Small Molecules by a Combination of Linear and Branched Alkyl Side Chains. ACS Nano, 2014, 8, 5988-6003.	14.6	52
66	Structural fluctuation of protein in water around its native state: A new statistical mechanics formulation. Journal of Chemical Physics, 2013, 138, 054108.	3.0	24
67	Transition by breaking of analyticity in the ground state of Josephson junction arrays as a static signature of the vortex jamming transition. Physical Review E, 2012, 85, 051132.	2.1	0
68	Coarsening of two-dimensional XY model with Hamiltonian dynamics: logarithmically divergent vortex mobility. Journal of Statistical Mechanics: Theory and Experiment, 2012, 2012, P11023.	2.3	4
69	Crystallinity-Controlled Naphthalene-alt-diketopyrrolopyrrole Copolymers for High-Performance Ambipolar Field Effect Transistors. Journal of Physical Chemistry C, 2012, 116, 26204-26213.	3.1	32
70	Importance of Solubilizing Group and Backbone Planarity in Low Band Gap Polymers for High Performance Ambipolar field-effect Transistors. Chemistry of Materials, 2012, 24, 1316-1323.	6.7	168
71	Degradation of a Thin Ag Layer Induced by Poly(3,4-ethylenedioxythiophene):Polystyrene Sulfonate in a Transmission Electron Microscopy Specimen of an Inverted Polymer Solar Cell. ACS Applied Materials & Interfaces, 2012, 4, 5118-5124.	8.0	40
72	Solution processed WO3 layer for the replacement of PEDOT:PSS layer in organic photovoltaic cells. Organic Electronics, 2012, 13, 959-968.	2.6	126

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73	Sliding of a vortex solid with self-generated randomness in a frustrated Josephson junction array. Journal of Physics: Conference Series, 2011, 320, 012024.	0.4	0
74	Double transitions, non-Ising criticality and the critical absorbing phase in an interacting monomerâ€“dimer model on a square lattice. Journal of Statistical Mechanics: Theory and Experiment, 2011, 2011, L06001.	2.3	1
75	Coarsening kinetics of a two-dimensional O(2) Ginzburgâ€“Landau model: the effect of reversible mode coupling. Journal of Statistical Mechanics: Theory and Experiment, 2011, 2011, P03013.	2.3	6
76	Vortex Solid Phase with Frozen Undulations in Superconducting Josephson-Junction Arrays in External Magnetic Fields. Physical Review Letters, 2010, 105, 257004.	7.8	4
77	Coarsening of a nonequilibrium kinetic Ising chain with absorbing transitions: spatial correlation of the order parameters and their dynamic scalings. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P08013.	2.3	1
78	Coarsening dynamics of an antiferromagneticXYmodel on the kagome lattice: Breakdown of critical dynamic scaling. Physical Review B, 2009, 79, .	3.2	0
79	Nonequilibrium mode-coupling theory for uniformly sheared systems. Physical Review E, 2009, 79, 021203.	2.1	15
80	An FDR-Consistent Field Theory for the Stochastic Dynamic Density Functional Model. Progress of Theoretical Physics Supplement, 2009, 178, 123-132.	0.1	1
81	Vortex jamming in superconductors and granular rheology. New Journal of Physics, 2009, 11, 013010.	2.9	11
82	Printable ion-gel gate dielectrics for low-voltage polymer thin-film transistorsÂonÂplastic. Nature Materials, 2008, 7, 900-906.	27.5	1,077
83	A fluctuation-dissipation relationship-preserving field theory for interacting Brownian particles: one-loop theory and mode coupling theory. Journal of Statistical Mechanics: Theory and Experiment, 2008, 2008, P02004.	2.3	21
84	Nonequilibrium critical relaxation of the order parameter and energy in the two-dimensional ferromagnetic Potts model. Physical Review E, 2008, 77, 056104.	2.1	11
85	Relaxation dynamics and interrupted coarsening in irrationally frustrated superconducting arrays. Physical Review B, 2008, 78, .	3.2	0
86	A FDR-Preserving Field Theory for Interacting Brownian Particles: One-Loop Theory and MCT. AIP Conference Proceedings, 2008, , .	0.4	1
87	The mode coupling theory in the FDR-preserving field theory of interacting Brownian particles. Journal of Physics A: Mathematical and Theoretical, 2007, 40, F33-F42.	2.1	33
88	Nonequilibrium relaxations within the ground-state manifold in the antiferromagnetic Ising model on a triangular lattice. Physical Review E, 2007, 75, 021106.	2.1	5
89	Equilibrium Dynamics of the Toy Model of Dense Fluid:â€‰ The Infinite Damping Limit. Journal of Physical Chemistry B, 2005, 109, 21389-21398.	2.6	0
90	Optical Conductivity in a Two Dimensional Quantum Well System with Impurity Scattering. Journal of the Physical Society of Japan, 2002, 71, 2980-2982.	1.6	0

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91	Kinetically driven glassy transition in an exactly solvable toy model with a reversible mode coupling mechanism and trivial statics. Journal of Physics Condensed Matter, 2002, 14, 1627-1636.	1.8	4
92	A dynamic mean-field glass model with reversible mode coupling and a trivial Hamiltonian. Journal of Physics Condensed Matter, 2002, 14, 2265-2273.	1.8	13
93	Infinite ground state degeneracy and glassy dynamics in the frustrated XY model and lattice Coulomb gas with. Physica A: Statistical Mechanics and Its Applications, 2002, 315, 314-320.	2.6	7
94	Out of Equilibrium Dynamics of the Toy Model with Mode Coupling and Trivial Hamiltonian. Journal of Statistical Physics, 2002, 109, 591-606.	1.2	2
95	Slow Dynamics in the Relaxation of an Irrationally Frustrated XY Model in Two Dimensions: Analogy to Supercooled Liquids. Progress of Theoretical Physics Supplement, 1997, 126, 349-354.	0.1	2
96	Dynamics of spin and chiral ordering in the two-dimensional fully frustratedXYmodel. Physical Review E, 1995, 51, R4-R7.	2.1	18
97	Ordering kinetics of two-dimensional O(2) models: Scaling and temperature dependence. Physical Review E, 1995, 52, 1550-1557.	2.1	17