Bong Hoon Kim

List of Publications by Year
in descending order

79 papers	7,882 citations	61984 43 h-index	69250 77 g-index
83 all docs	83 docs citations	83 times ranked	10478 citing authors

#	Article	IF	Citations
1	Waterproof AlInGaP optoelectronics on stretchable substrates with applications in biomedicine andÂrobotics. Nature Materials, 2010, 9, 929-937.	27.5	557
2	Binodal, wireless epidermal electronic systems with in-sensor analytics for neonatal intensive care. Science, 2019, 363, .	12.6	521
3	Bioresorbable silicon electronics for transient spatiotemporal mapping of electrical activity fromÂthe cerebral cortex. Nature Materials, 2016, 15, 782-791.	27.5	400
4	Highâ€Performance Biodegradable/Transient Electronics on Biodegradable Polymers. Advanced Materials, 2014, 26, 3905-3911.	21.0	359
5	A wireless closed-loop system for optogenetic peripheral neuromodulation. Nature, 2019, 565, 361-365.	27.8	358
6	High-Resolution Patterns of Quantum Dots Formed by Electrohydrodynamic Jet Printing for Light-Emitting Diodes. Nano Letters, 2015, 15, 969-973.	9.1	355
7	Self-assembled three dimensional network designs for soft electronics. Nature Communications, 2017, 8, 15894.	12.8	325
8	Stretchable, Transparent Graphene Interconnects for Arrays of Microscale Inorganic Light Emitting Diodes on Rubber Substrates. Nano Letters, 2011, 11, 3881-3886.	9.1	307
9	Directed self-assembly of block copolymers for next generation nanolithography. Materials Today, 2013, 16, 468-476.	14.2	260
10	Battery-free, wireless sensors for full-body pressure and temperature mapping. Science Translational Medicine, 2018, 10, .	12.4	247
11	Vertical ZnO nanowires/graphene hybrids for transparent and flexible field emission. Journal of Materials Chemistry, 2011, 21, 3432-3437.	6.7	227
12	Double-heterojunction nanorod light-responsive LEDs for display applications. Science, 2017, 355, 616-619.	12.6	207
13	Dissolution Behaviors and Applications of Silicon Oxides and Nitrides in Transient Electronics. Advanced Functional Materials, 2014, 24, 4427-4434.	14.9	206
14	Musselâ€Inspired Block Copolymer Lithography for Low Surface Energy Materials of Teflon, Graphene, and Gold. Advanced Materials, 2011, 23, 5618-5622.	21.0	188
15	Development of a neural interface for high-definition, long-term recording in rodents and nonhuman primates. Science Translational Medicine, 2020, 12, .	12.4	145
16	Soft Graphoepitaxy of Block Copolymer Assembly with Disposable Photoresist Confinement. Nano Letters, 2009, 9, 2300-2305.	9.1	144
17	Highly tunable refractive index visible-light metasurface from block copolymer self-assembly. Nature Communications, 2016, 7, 12911.	12.8	143
18	Soft, thin skin-mounted power management systems and their use in wireless thermography. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 6131-6136.	7.1	139

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19	Universal Block Copolymer Lithography for Metals, Semiconductors, Ceramics, and Polymers. Advanced Materials, 2008, 20, 1898-1904.	21.0	138
20	Multimodal Sensing with a Three-Dimensional Piezoresistive Structure. ACS Nano, 2019, 13, 10972-10979.	14.6	134
21	Surface Energy Modification by Spin-Cast, Large-Area Graphene Film for Block Copolymer Lithography. ACS Nano, 2010, 4, 5464-5470.	14.6	132
22	Three-dimensional electronic microfliers inspired by wind-dispersed seeds. Nature, 2021, 597, 503-510.	27.8	120
23	Multilayer Transfer Printing for Pixelated, Multicolor Quantum Dot Light-Emitting Diodes. ACS Nano, 2016, 10, 4920-4925.	14.6	115
24	Freestanding 3D Mesostructures, Functional Devices, and Shapeâ€Programmable Systems Based on Mechanically Induced Assembly with Shape Memory Polymers. Advanced Materials, 2019, 31, e1805615.	21.0	105
25	One-Dimensional Metal Nanowire Assembly via Block Copolymer Soft Graphoepitaxy. Nano Letters, 2010, 10, 3500-3505.	9.1	102
26	Laser Writing Block Copolymer Self-Assembly on Graphene Light-Absorbing Layer. ACS Nano, 2016, 10, 3435-3442.	14.6	102
27	Ultralarge-Area Block Copolymer Lithography Enabled by Disposable Photoresist Prepatterning. ACS Nano, 2010, 4, 5181-5186.	14.6	97
28	Materials and Designs for Wirelessly Powered Implantable Lightâ€Emitting Systems. Small, 2012, 8, 2812-2818.	10.0	93
29	Natural Wax for Transient Electronics. Advanced Functional Materials, 2018, 28, 1801819.	14.9	90
30	Flexible and Transferrable Selfâ€Assembled Nanopatterning on Chemically Modified Graphene. Advanced Materials, 2013, 25, 1331-1335.	21.0	88
31	Soft, Skinâ€Interfaced Microfluidic Systems with Wireless, Batteryâ€Free Electronics for Digital, Realâ€Time Tracking of Sweat Loss and Electrolyte Composition. Small, 2018, 14, e1802876.	10.0	88
32	Battery-free, wireless soft sensors for continuous multi-site measurements of pressure and temperature from patients at risk for pressure injuries. Nature Communications, 2021, 12, 5008.	12.8	83
33	Biological lipid membranes for on-demand, wireless drug delivery from thin, bioresorbable electronic implants. NPG Asia Materials, 2015, 7, e227-e227.	7.9	80
34	Hierarchical Selfâ€Assembly of Block Copolymers for Lithographyâ€Free Nanopatterning. Advanced Materials, 2008, 20, 2303-2307.	21.0	76
35	Defect Structure in Thin Films of a Lamellar Block Copolymer Self-Assembled on Neutral Homogeneous and Chemically Nanopatterned Surfaces. Macromolecules, 2006, 39, 5466-5470.	4.8	66
36	Novel Complex Nanostructure from Directed Assembly of Block Copolymers on Incommensurate Surface Patterns. Advanced Materials, 2007, 19, 3271-3275.	21.0	65

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37	Block copolymer multiple patterning integrated with conventional ArFlithography. Soft Matter, 2010, 6, 120-125.	2.7	64
38	Spontaneous Lamellar Alignment in Thicknessâ€Modulated Block Copolymer Films. Advanced Functional Materials, 2009, 19, 2584-2591.	14.9	63
39	Directed self-assembly of block copolymers for universal nanopatterning. Soft Matter, 2013, 9, 2780.	2.7	62
40	Ultralarge Area Sub-10 nm Plasmonic Nanogap Array by Block Copolymer Self-Assembly for Reliable High-Sensitivity SERS. ACS Applied Materials & Interfaces, 2018, 10, 44660-44667.	8.0	59
41	3D Tailored Crumpling of Blockâ€Copolymer Lithography on Chemically Modified Graphene. Advanced Materials, 2016, 28, 1591-1596.	21.0	58
42	Electric Actuation of Nanostructured Thermoplastic Elastomer Gels with Ultralarge Electrostriction Coefficients. Advanced Functional Materials, 2011, 21, 3242-3249.	14.9	55
43	Ferromagnetic, Folded Electrode Composite as a Soft Interface to the Skin for Longâ€Term Electrophysiological Recording. Advanced Functional Materials, 2016, 26, 7281-7290.	14.9	53
44	One-Dimensional Nanoassembly of Block Copolymers Tailored by Chemically Patterned Surfaces. Macromolecules, 2009, 42, 1189-1193.	4.8	43
45	Materials and Wireless Microfluidic Systems for Electronics Capable of Chemical Dissolution on Demand. Advanced Functional Materials, 2015, 25, 1338-1343.	14.9	41
46	Mechanically Guided Postâ€Assembly of 3D Electronic Systems. Advanced Functional Materials, 2018, 28, 1803149.	14.9	41
47	Fabrication of Luminescent Nanoarchitectures by Electron Irradiation of Polystyrene. Advanced Materials, 2008, 20, 2094-2098.	21.0	38
48	Wrinkleâ€Directed Selfâ€Assembly of Block Copolymers for Aligning of Nanowire Arrays. Advanced Materials, 2014, 26, 4665-4670.	21.0	38
49	Flexible electrochromic and thermochromic hybrid smart window based on a highly durable ITO/graphene transparent electrode. Chemical Engineering Journal, 2021, 416, 129028.	12.7	38
50	Wireless Microfluidic Systems for Programmed, Functional Transformation of Transient Electronic Devices. Advanced Functional Materials, 2015, 25, 5100-5106.	14.9	37
51	Anomalous Rapid Defect Annihilation in Self-Assembled Nanopatterns by Defect Melting. Nano Letters, 2015, 15, 1190-1196.	9.1	37
52	Three-Dimensional Silicon Electronic Systems Fabricated by Compressive Buckling Process. ACS Nano, 2018, 12, 4164-4171.	14.6	36
53	Dry Transient Electronic Systems by Use of Materials that Sublime. Advanced Functional Materials, 2017, 27, 1606008.	14.9	34
54	Large-area, highly oriented lamellar block copolymer nanopatterning directed by graphoepitaxially assembled cylinder nanopatterns. Journal of Materials Chemistry, 2012, 22, 6307.	6.7	25

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55	Flexible and implantable capacitive microelectrode for bio-potential acquisition. Biochip Journal, 2017, 11, 153-163.	4.9	25
56	Fractal Web Design of a Hemispherical Photodetector Array with Organicâ€Dyeâ€Sensitized Graphene Hybrid Composites. Advanced Materials, 2020, 32, e2004456.	21.0	25
57	Protein nanoarrays on a highly-oriented lamellar surface. Chemical Communications, 2010, 46, 1911-1913.	4.1	22
58	Durability-enhanced monolithic inorganic electrochromic devices with tantalum-doped nickel oxide as a counter electrode. Solar Energy Materials and Solar Cells, 2022, 234, 111435.	6.2	18
59	Bimodal phase separated block copolymer/homopolymer blends self-assembly for hierarchical porous metal nanomesh electrodes. Nanoscale, 2018, 10, 100-108.	5.6	17
60	Effect of ethanolamine passivation of ZnO nanoparticles in quantum dot light emitting diode structure. Current Applied Physics, 2019, 19, 998-1005.	2.4	17
61	Artificial stretchable armor for skin-interfaced wearable devices and soft robotics. Extreme Mechanics Letters, 2022, 50, 101537.	4.1	15
62	Spin coating nanopatterned multielemental materials via self-assembled nanotemplates. Nanotechnology, 2009, 20, 225301.	2.6	12
63	Single-step self-assembly of multilayer graphene based dielectric nanostructures. FlatChem, 2017, 4, 61-67.	5.6	8
64	Negativeâ€Tone Block Copolymer Lithography by In Situ Surface Chemical Modification. Small, 2014, 10, 4207-4212.	10.0	6
65	Hierarchical Self-Assembly of Thickness-Modulated Block Copolymer Thin Films for Controlling Nanodomain Orientations inside Bare Silicon Trenches. Polymers, 2021, 13, 553.	4.5	4
66	Self-Assembled Nanostructures of Block Copolymers on Random Copolymer Brush. Solid State Phenomena, 2007, 124-126, 579-582.	0.3	3
67	Geometric effects of nanocrystals in nonvolatile memory using block copolymer nanotemplate. Solid-State Electronics, 2009, 53, 640-643.	1.4	3
68	Directed highâ€‡ block copolymer <scp>selfâ€assembly</scp> by laser writing on silicon substrate. Journal of Applied Polymer Science, 2022, 139, .	2.6	3
69	The Synthesis of Random Brush for Nanostructure of Block Copolymer. Macromolecular Symposia, 2007, 249-250, 303-306.	0.7	2
70	Surface Nanopatterning: Mussel-Inspired Block Copolymer Lithography for Low Surface Energy Materials of Teflon, Graphene, and Gold (Adv. Mater. 47/2011). Advanced Materials, 2011, 23, 5584-5584.	21.0	2
71	Flexible Electronics: Materials and Designs for Wirelessly Powered Implantable Lightâ€Emitting Systems (Small 18/2012). Small, 2012, 8, 2770-2770.	10.0	2
72	Electronic Stuctures: Mechanically Guided Postâ€Assembly of 3D Electronic Systems (Adv. Funct. Mater.) Tj ETQq0 0 0 rgBT /Overlock 1	14.9	2

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73	High Performance Field-Effect Transistors Based on Partially Suspended 2D Materials via Block Copolymer Lithography. Polymers, 2021, 13, 566.	4.5	2
74	Collapse-Induced Multimer Formation of Self-Assembled Nanoparticles for Surface Enhanced Raman Scattering. Coatings, 2021, 11, 76.	2.6	1
75	Ultralarge-area block copolymer lithography using self-assembly assisted photoresist pre-pattern. , 2011, , .		0
76	Microscale, printed LEDs for unusual lighting and display systems. , 2011, , .		0
77	Self-Assembly Nanofabrication via Mussel-Inspired Interfacial Engineering. Applied Mechanics and Materials, 0, 229-231, 2749-2752.	0.2	0
78	Electrodes: Ferromagnetic, Folded Electrode Composite as a Soft Interface to the Skin for Longâ€Term Electrophysiological Recording (Adv. Funct. Mater. 40/2016). Advanced Functional Materials, 2016, 26, 7280-7280.	14.9	0
79	Transient Electronics: Dry Transient Electronic Systems by Use of Materials that Sublime (Adv. Funct.) Tj ETQq1 1 0.784314 rgBT /Ove	14.9	0