

# Bong Hoon Kim

## List of Publications by Year in descending order

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79  
papers

7,882  
citations

61857

43  
h-index

69108

77  
g-index

83  
all docs

83  
docs citations

83  
times ranked

10478  
citing authors

#	ARTICLE	IF	CITATIONS
1	Waterproof AllnGaP optoelectronics on stretchable substrates with applications in biomedicine and Robotics. Nature Materials, 2010, 9, 929-937.	13.3	557
2	Binodal, wireless epidermal electronic systems with in-sensor analytics for neonatal intensive care. Science, 2019, 363, .	6.0	521
3	Bioresorbable silicon electronics for transient spatiotemporal mapping of electrical activity from the cerebral cortex. Nature Materials, 2016, 15, 782-791.	13.3	400
4	High-Performance Biodegradable/Transient Electronics on Biodegradable Polymers. Advanced Materials, 2014, 26, 3905-3911.	11.1	359
5	A wireless closed-loop system for optogenetic peripheral neuromodulation. Nature, 2019, 565, 361-365.	13.7	358
6	High-Resolution Patterns of Quantum Dots Formed by Electrohydrodynamic Jet Printing for Light-Emitting Diodes. Nano Letters, 2015, 15, 969-973.	4.5	355
7	Self-assembled three dimensional network designs for soft electronics. Nature Communications, 2017, 8, 15894.	5.8	325
8	Stretchable, Transparent Graphene Interconnects for Arrays of Microscale Inorganic Light Emitting Diodes on Rubber Substrates. Nano Letters, 2011, 11, 3881-3886.	4.5	307
9	Directed self-assembly of block copolymers for next generation nanolithography. Materials Today, 2013, 16, 468-476.	8.3	260
10	Battery-free, wireless sensors for full-body pressure and temperature mapping. Science Translational Medicine, 2018, 10, .	5.8	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.	6.0	207
13	Dissolution Behaviors and Applications of Silicon Oxides and Nitrides in Transient Electronics. Advanced Functional Materials, 2014, 24, 4427-4434.	7.8	206
14	Mussel-Inspired Block Copolymer Lithography for Low Surface Energy Materials of Teflon, Graphene, and Gold. Advanced Materials, 2011, 23, 5618-5622.	11.1	188
15	Development of a neural interface for high-definition, long-term recording in rodents and nonhuman primates. Science Translational Medicine, 2020, 12, .	5.8	145
16	Soft Graphoepitaxy of Block Copolymer Assembly with Disposable Photoresist Confinement. Nano Letters, 2009, 9, 2300-2305.	4.5	144
17	Highly tunable refractive index visible-light metasurface from block copolymer self-assembly. Nature Communications, 2016, 7, 12911.	5.8	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.	3.3	139

#	ARTICLE	IF	CITATIONS
19	Universal Block Copolymer Lithography for Metals, Semiconductors, Ceramics, and Polymers. <i>Advanced Materials</i> , 2008, 20, 1898-1904.	11.1	138
20	Multimodal Sensing with a Three-Dimensional Piezoresistive Structure. <i>ACS Nano</i> , 2019, 13, 10972-10979.	7.3	134
21	Surface Energy Modification by Spin-Cast, Large-Area Graphene Film for Block Copolymer Lithography. <i>ACS Nano</i> , 2010, 4, 5464-5470.	7.3	132
22	Three-dimensional electronic microfliers inspired by wind-dispersed seeds. <i>Nature</i> , 2021, 597, 503-510.	13.7	120
23	Multilayer Transfer Printing for Pixelated, Multicolor Quantum Dot Light-Emitting Diodes. <i>ACS Nano</i> , 2016, 10, 4920-4925.	7.3	115
24	Freestanding 3D Mesostructures, Functional Devices, and Shape-Programmable Systems Based on Mechanically Induced Assembly with Shape Memory Polymers. <i>Advanced Materials</i> , 2019, 31, e1805615.	11.1	105
25	One-Dimensional Metal Nanowire Assembly via Block Copolymer Soft Graphoepitaxy. <i>Nano Letters</i> , 2010, 10, 3500-3505.	4.5	102
26	Laser Writing Block Copolymer Self-Assembly on Graphene Light-Absorbing Layer. <i>ACS Nano</i> , 2016, 10, 3435-3442.	7.3	102
27	Ultralarge-Area Block Copolymer Lithography Enabled by Disposable Photoresist Pre patterning. <i>ACS Nano</i> , 2010, 4, 5181-5186.	7.3	97
28	Materials and Designs for Wirelessly Powered Implantable Light-Emitting Systems. <i>Small</i> , 2012, 8, 2812-2818.	5.2	93
29	Natural Wax for Transient Electronics. <i>Advanced Functional Materials</i> , 2018, 28, 1801819.	7.8	90
30	Flexible and Transferrable Self-Assembled Nanopatterning on Chemically Modified Graphene. <i>Advanced Materials</i> , 2013, 25, 1331-1335.	11.1	88
31	Soft, Skin-Interfaced Microfluidic Systems with Wireless, Battery-Free Electronics for Digital, Real-Time Tracking of Sweat Loss and Electrolyte Composition. <i>Small</i> , 2018, 14, e1802876.	5.2	88
32	Battery-free, wireless soft sensors for continuous multi-site measurements of pressure and temperature from patients at risk for pressure injuries. <i>Nature Communications</i> , 2021, 12, 5008.	5.8	83
33	Biological lipid membranes for on-demand, wireless drug delivery from thin, bioresorbable electronic implants. <i>NPG Asia Materials</i> , 2015, 7, e227-e227.	3.8	80
34	Hierarchical Self-Assembly of Block Copolymers for Lithography-Free Nanopatterning. <i>Advanced Materials</i> , 2008, 20, 2303-2307.	11.1	76
35	Defect Structure in Thin Films of a Lamellar Block Copolymer Self-Assembled on Neutral Homogeneous and Chemically Nanopatterned Surfaces. <i>Macromolecules</i> , 2006, 39, 5466-5470.	2.2	66
36	Novel Complex Nanostructure from Directed Assembly of Block Copolymers on Incommensurate Surface Patterns. <i>Advanced Materials</i> , 2007, 19, 3271-3275.	11.1	65

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37	Block copolymer multiple patterning integrated with conventional ArFlithography. <i>Soft Matter</i> , 2010, 6, 120-125.	1.2	64
38	Spontaneous Lamellar Alignment in Thickness-Modulated Block Copolymer Films. <i>Advanced Functional Materials</i> , 2009, 19, 2584-2591.	7.8	63
39	Directed self-assembly of block copolymers for universal nanopatterning. <i>Soft Matter</i> , 2013, 9, 2780.	1.2	62
40	Ultralarge Area Sub-10 nm Plasmonic Nanogap Array by Block Copolymer Self-Assembly for Reliable High-Sensitivity SERS. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 44660-44667.	4.0	59
41	3D Tailored Crumpling of Block-Copolymer Lithography on Chemically Modified Graphene. <i>Advanced Materials</i> , 2016, 28, 1591-1596.	11.1	58
42	Electric Actuation of Nanostructured Thermoplastic Elastomer Gels with Ultralarge Electrostriction Coefficients. <i>Advanced Functional Materials</i> , 2011, 21, 3242-3249.	7.8	55
43	Ferromagnetic, Folded Electrode Composite as a Soft Interface to the Skin for Long-Term Electrophysiological Recording. <i>Advanced Functional Materials</i> , 2016, 26, 7281-7290.	7.8	53
44	One-Dimensional Nanoassembly of Block Copolymers Tailored by Chemically Patterned Surfaces. <i>Macromolecules</i> , 2009, 42, 1189-1193.	2.2	43
45	Materials and Wireless Microfluidic Systems for Electronics Capable of Chemical Dissolution on Demand. <i>Advanced Functional Materials</i> , 2015, 25, 1338-1343.	7.8	41
46	Mechanically Guided Post-Assembly of 3D Electronic Systems. <i>Advanced Functional Materials</i> , 2018, 28, 1803149.	7.8	41
47	Fabrication of Luminescent Nanoarchitectures by Electron Irradiation of Polystyrene. <i>Advanced Materials</i> , 2008, 20, 2094-2098.	11.1	38
48	Wrinkle-Directed Self-Assembly of Block Copolymers for Aligning of Nanowire Arrays. <i>Advanced Materials</i> , 2014, 26, 4665-4670.	11.1	38
49	Flexible electrochromic and thermochromic hybrid smart window based on a highly durable ITO/graphene transparent electrode. <i>Chemical Engineering Journal</i> , 2021, 416, 129028.	6.6	38
50	Wireless Microfluidic Systems for Programmed, Functional Transformation of Transient Electronic Devices. <i>Advanced Functional Materials</i> , 2015, 25, 5100-5106.	7.8	37
51	Anomalous Rapid Defect Annihilation in Self-Assembled Nanopatterns by Defect Melting. <i>Nano Letters</i> , 2015, 15, 1190-1196.	4.5	37
52	Three-Dimensional Silicon Electronic Systems Fabricated by Compressive Buckling Process. <i>ACS Nano</i> , 2018, 12, 4164-4171.	7.3	36
53	Dry Transient Electronic Systems by Use of Materials that Sublime. <i>Advanced Functional Materials</i> , 2017, 27, 1606008.	7.8	34
54	Large-area, highly oriented lamellar block copolymer nanopatterning directed by graphoepitaxially assembled cylinder nanopatterns. <i>Journal of Materials Chemistry</i> , 2012, 22, 6307.	6.7	25

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55	Flexible and implantable capacitive microelectrode for bio-potential acquisition. <i>Biochip Journal</i> , 2017, 11, 153-163.	2.5	25
56	Fractal Web Design of a Hemispherical Photodetector Array with Organic Dye-Sensitized Graphene Hybrid Composites. <i>Advanced Materials</i> , 2020, 32, e2004456.	11.1	25
57	Protein nanoarrays on a highly-oriented lamellar surface. <i>Chemical Communications</i> , 2010, 46, 1911-1913.	2.2	22
58	Durability-enhanced monolithic inorganic electrochromic devices with tantalum-doped nickel oxide as a counter electrode. <i>Solar Energy Materials and Solar Cells</i> , 2022, 234, 111435.	3.0	18
59	Bimodal phase separated block copolymer/homopolymer blends self-assembly for hierarchical porous metal nanomesh electrodes. <i>Nanoscale</i> , 2018, 10, 100-108.	2.8	17
60	Effect of ethanolamine passivation of ZnO nanoparticles in quantum dot light emitting diode structure. <i>Current Applied Physics</i> , 2019, 19, 998-1005.	1.1	17
61	Artificial stretchable armor for skin-interfaced wearable devices and soft robotics. <i>Extreme Mechanics Letters</i> , 2022, 50, 101537.	2.0	15
62	Spin coating nanopatterned multielemental materials via self-assembled nanotemplates. <i>Nanotechnology</i> , 2009, 20, 225301.	1.3	12
63	Single-step self-assembly of multilayer graphene based dielectric nanostructures. <i>FlatChem</i> , 2017, 4, 61-67.	2.8	8
64	Negative-Tone Block Copolymer Lithography by In Situ Surface Chemical Modification. <i>Small</i> , 2014, 10, 4207-4212.	5.2	6
65	Hierarchical Self-Assembly of Thickness-Modulated Block Copolymer Thin Films for Controlling Nanodomain Orientations inside Bare Silicon Trenches. <i>Polymers</i> , 2021, 13, 553.	2.0	4
66	Self-Assembled Nanostructures of Block Copolymers on Random Copolymer Brush. <i>Solid State Phenomena</i> , 2007, 124-126, 579-582.	0.3	3
67	Geometric effects of nanocrystals in nonvolatile memory using block copolymer nanotemplate. <i>Solid-State Electronics</i> , 2009, 53, 640-643.	0.8	3
68	Directed high-resolution block copolymer self-assembly by laser writing on silicon substrate. <i>Journal of Applied Polymer Science</i> , 2022, 139, .	1.3	3
69	The Synthesis of Random Brush for Nanostructure of Block Copolymer. <i>Macromolecular Symposia</i> , 2007, 249-250, 303-306.	0.4	2
70	Surface Nanopatterning: Mussel-Inspired Block Copolymer Lithography for Low Surface Energy Materials of Teflon, Graphene, and Gold ( <i>Adv. Mater.</i> 47/2011). <i>Advanced Materials</i> , 2011, 23, 5584-5584.	11.1	2
71	Flexible Electronics: Materials and Designs for Wirelessly Powered Implantable Light-Emitting Systems ( <i>Small</i> 18/2012). <i>Small</i> , 2012, 8, 2770-2770.	5.2	2
72	Electronic Structures: Mechanically Guided Post-Assembly of 3D Electronic Systems ( <i>Adv. Funct. Mater.</i> ) Tj ETQq0,0,0 rgBT /2 Overlock 1	7.8	2

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73	High Performance Field-Effect Transistors Based on Partially Suspended 2D Materials via Block Copolymer Lithography. <i>Polymers</i> , 2021, 13, 566.	2.0	2
74	Collapse-Induced Multimer Formation of Self-Assembled Nanoparticles for Surface Enhanced Raman Scattering. <i>Coatings</i> , 2021, 11, 76.	1.2	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. <i>Applied Mechanics and Materials</i> , 0, 229-231, 2749-2752.	0.2	0
78	Electrodes: Ferromagnetic, Folded Electrode Composite as a Soft Interface to the Skin for Long-Term Electrophysiological Recording ( <i>Adv. Funct. Mater.</i> 40/2016). <i>Advanced Functional Materials</i> , 2016, 26, 7280-7280.	7.8	0
79	Transient Electronics: Dry Transient Electronic Systems by Use of Materials that Sublime ( <i>Adv. Funct.</i> ) Tj ETQq1 1 0,784314 rgBT /Over	7.8	0