

# Sukang Bae

## List of Publications by Year in descending order

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83  
papers

14,574  
citations

94433

37  
h-index

66911

78  
g-index

84  
all docs

84  
docs citations

84  
times ranked

21014  
citing authors

#	ARTICLE	IF	CITATIONS
1	Roll-to-roll production of 30-inch graphene films for transparent electrodes. Nature Nanotechnology, 2010, 5, 574-578.	31.5	7,294
2	Wafer-Scale Synthesis and Transfer of Graphene Films. Nano Letters, 2010, 10, 490-493.	9.1	1,062
3	Graphene for Controlled and Accelerated Osteogenic Differentiation of Human Mesenchymal Stem Cells. ACS Nano, 2011, 5, 4670-4678.	14.6	819
4	Length-dependent thermal conductivity in suspended single-layer graphene. Nature Communications, 2014, 5, 3689.	12.8	735
5	Anomalous Behaviors of Visible Luminescence from Graphene Quantum Dots: Interplay between Size and Shape. ACS Nano, 2012, 6, 8203-8208.	14.6	563
6	High-Performance Graphene-Based Transparent Flexible Heaters. Nano Letters, 2011, 11, 5154-5158.	9.1	457
7	Graphene transfer: key for applications. Nanoscale, 2012, 4, 5527.	5.6	405
8	Toward Wafer Scale Fabrication of Graphene Based Spin Valve Devices. Nano Letters, 2011, 11, 2363-2368.	9.1	214
9	Flexible Inorganic Nanostructure Light-Emitting Diodes Fabricated on Graphene Films. Advanced Materials, 2011, 23, 4614-4619.	21.0	210
10	Balancing Light Absorptivity and Carrier Conductivity of Graphene Quantum Dots for High-Efficiency Bulk Heterojunction Solar Cells. ACS Nano, 2013, 7, 7207-7212.	14.6	171
11	Graphene-Ferroelectric Hybrid Structure for Flexible Transparent Electrodes. ACS Nano, 2012, 6, 3935-3942.	14.6	167
12	Active control of all-fibre graphene devices with electrical gating. Nature Communications, 2015, 6, 6851.	12.8	159
13	Efficient Mode-Locking of Sub-70-fs Ti:Sapphire Laser by Graphene Saturable Absorber. Applied Physics Express, 2012, 5, 032701.	2.4	140
14	Towards industrial applications of graphene electrodes. Physica Scripta, 2012, T146, 014024.	2.5	131
15	Quasi-Periodic Nanoripples in Graphene Grown by Chemical Vapor Deposition and Its Impact on Charge Transport. ACS Nano, 2012, 6, 1158-1164.	14.6	129
16	High-quality, large-area monolayer graphene for efficient bulk laser mode-locking near 125 $\mu$ m. Optics Letters, 2011, 36, 4089.	3.3	128
17	Reduced Water Vapor Transmission Rate of Graphene Gas Barrier Films for Flexible Organic Field-Effect Transistors. ACS Nano, 2015, 9, 5818-5824.	14.6	93
18	Optical response of large scale single layer graphene. Applied Physics Letters, 2011, 98, .	3.3	87

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19	Hierarchical Porous Film with Layer-by-Layer Assembly of 2D Copper Nanosheets for Ultimate Electromagnetic Interference Shielding. <i>ACS Nano</i> , 2021, 15, 829-839.	14.6	85
20	Rare-Earth-Element-Ytterbium-Substituted Lead-Free Inorganic Perovskite Nanocrystals for Optoelectronic Applications. <i>Advanced Materials</i> , 2019, 31, e1901716.	21.0	81
21	Wafer-scale graphene/ferroelectric hybrid devices for low-voltage electronics. <i>Europhysics Letters</i> , 2011, 93, 17002.	2.0	74
22	Facile and Purification-Free Synthesis of Nitrogenated Amphiphilic Graphitic Carbon Dots. <i>Chemistry of Materials</i> , 2016, 28, 1481-1488.	6.7	74
23	Number of graphene layers as a modulator of the open-circuit voltage of graphene-based solar cell. <i>Applied Physics Letters</i> , 2010, 97, .	3.3	70
24	Far-infrared study of substrate-effect on large scale graphene. <i>Applied Physics Letters</i> , 2011, 98, .	3.3	58
25	Surface-Engineered Graphene Quantum Dots Incorporated into Polymer Layers for High Performance Organic Photovoltaics. <i>Scientific Reports</i> , 2015, 5, 14276.	3.3	56
26	Sub-100-fs Cr:YAG laser mode-locked by monolayer graphene saturable absorber. <i>Optics Letters</i> , 2013, 38, 1745.	3.3	54
27	Origin of White Electroluminescence in Graphene Quantum Dots Embedded Host/Guest Polymer Light Emitting Diodes. <i>Scientific Reports</i> , 2015, 5, 11032.	3.3	54
28	Nano carbon conformal coating strategy for enhanced photoelectrochemical responses and long-term stability of ZnO quantum dots. <i>Nano Energy</i> , 2015, 13, 258-266.	16.0	53
29	Ultrastrong Graphene-Copper Core-Shell Wires for High-Performance Electrical Cables. <i>ACS Nano</i> , 2018, 12, 2803-2808.	14.6	52
30	Humidity-Tolerant Single-Stranded DNA-Functionalized Graphene Probe for Medical Applications of Exhaled Breath Analysis. <i>Advanced Functional Materials</i> , 2017, 27, 1700068.	14.9	47
31	2D Single-Crystalline Copper Nanoplates as a Conductive Filler for Electronic Ink Applications. <i>Small</i> , 2018, 14, 1703312.	10.0	47
32	Direct Synthesis of a Self-Assembled WSe <sub>2</sub> /MoS <sub>2</sub> Heterostructure Array and its Optoelectrical Properties. <i>Advanced Materials</i> , 2019, 31, e1904194.	21.0	47
33	Multi-functional nitrogen self-doped graphene quantum dots for boosting the photovoltaic performance of BHJ solar cells. <i>Nano Energy</i> , 2017, 34, 36-46.	16.0	45
34	Enhanced photovoltaic performance of inverted polymer solar cells utilizing versatile chemically functionalized ZnO@graphene quantum dot monolayer. <i>Nano Energy</i> , 2016, 20, 221-232.	16.0	44
35	Layer-Selective Synthesis of MoS <sub>2</sub> and WS <sub>2</sub> Structures under Ambient Conditions for Customized Electronics. <i>ACS Nano</i> , 2020, 14, 8485-8494.	14.6	41
36	Simultaneous Etching and Doping by Cu-Stabilizing Agent for High-Performance Graphene-Based Transparent Electrodes. <i>Chemistry of Materials</i> , 2014, 26, 2332-2336.	6.7	40

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37	Three-Dimensional Porous Copper-Graphene Heterostructures with Durability and High Heat Dissipation Performance. <i>Scientific Reports</i> , 2015, 5, 12710.	3.3	40
38	Graphene mode-locked femtosecond Yb:KLuW laser. <i>Applied Physics Letters</i> , 2012, 101, .	3.3	39
39	Triboelectric effect of surface morphology controlled laser induced graphene. <i>Journal of Materials Chemistry A</i> , 2020, 8, 19822-19832.	10.3	34
40	Low-Voltage Organic Transistor Memory Fiber with a Nanograined Organic Ferroelectric Film. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 22575-22582.	8.0	33
41	Low-temperature growth and direct transfer of grapheneâ€“graphitic carbon films on flexible plastic substrates. <i>Nanotechnology</i> , 2012, 23, 344016.	2.6	28
42	Graphene quantum dots as a highly efficient solution-processed charge trapping medium for organic nano-floating gate memory. <i>Nanotechnology</i> , 2016, 27, 145204.	2.6	27
43	Integration of multiple electronic components on a microfibre towards an emerging electronic textile platform. <i>Nature Communications</i> , 2022, 13, .	12.8	27
44	Structure-controllable growth of nitrogenated graphene quantum dots via solvent catalysis for selective C-N bond activation. <i>Nature Communications</i> , 2021, 12, 5879.	12.8	25
45	Stress relaxation of GaN microstructures on a grapheneâ€“buffered Al <sub>2</sub> O <sub>3</sub> substrate. <i>Physica Status Solidi - Rapid Research Letters</i> , 2014, 8, 341-344.	2.4	23
46	Metal nanofibrils embedded in long free-standing carbon nanotube fibers with a high critical current density. <i>NPG Asia Materials</i> , 2018, 10, 146-155.	7.9	23
47	Hybrid dielectrics composed of Al <sub>2</sub> O <sub>3</sub> and phosphonic acid self-assembled monolayers for performance improvement in low voltage organic field effect transistors. <i>Nano Convergence</i> , 2018, 5, 20.	12.1	22
48	Enhancement of Adsorption Performance for Organic Molecules by Combined Effect of Intermolecular Interaction and Morphology in Porous rGO-Incorporated Hydrogels. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 17335-17344.	8.0	21
49	Graphene Q-switched Yb:KYW planar waveguide laser. <i>AIP Advances</i> , 2015, 5, .	1.3	20
50	Enhanced Photovoltaic Performance of Inverted Polymer Solar Cells Utilizing Multifunctional Quantumâ€“Dot Monolayers. <i>Advanced Energy Materials</i> , 2015, 5, 1401130.	19.5	20
51	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. <i>Organic Electronics</i> , 2015, 18, 77-83.	2.6	18
52	Porous copperâ€“graphene heterostructures for cooling of electronic devices. <i>Nanoscale</i> , 2017, 9, 7565-7569.	5.6	17
53	Performance enhancement of graphene assisted CNT/Cu composites for lightweight electrical cables. <i>Carbon</i> , 2021, 179, 53-59.	10.3	15
54	One step synthesis of Au nanoparticle-cyclized polyacrylonitrile composite films and their use in organic nano-floating gate memory applications. <i>Journal of Materials Chemistry C</i> , 2016, 4, 1511-1516.	5.5	14

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55	Low operational voltage and high performance organic field effect memory transistor with solution processed graphene oxide charge storage media. <i>Organic Electronics</i> , 2014, 15, 2775-2782.	2.6	13
56	An All-Organic Composite System for Resistive Change Memory via the Self-Assembly of Plastic-Crystalline Molecules. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 2730-2738.	8.0	10
57	Photocatalytic decomposition of graphene over a ZnO surface under UV irradiation. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 15683-15686.	2.8	9
58	Fabrication of spray-printed organic non-volatile memory devices for low cost electronic applications. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2015, 191, 51-56.	3.5	9
59	Effect of uni-axial strain on THz/far-infrared response of graphene. <i>Applied Physics Letters</i> , 2012, 100, .	3.3	8
60	Molecular-scale charge trap medium for organic non-volatile memory transistors. <i>Organic Electronics</i> , 2015, 27, 18-23.	2.6	8
61	Light-sensitive charge storage medium with spironaphthooxazine molecule-polymer blends for dual-functional organic phototransistor memory. <i>Organic Electronics</i> , 2020, 78, 105554.	2.6	8
62	Integrated all-organic 8 $\times$ 8 one transistor-one resistor (1T-1R) crossbar resistive switching memory array. <i>Organic Electronics</i> , 2016, 29, 66-71.	2.6	7
63	Two-in-One Device with Versatile Compatible Electrical Switching or Data Storage Functions Controlled by the Ferroelectricity of P(VDF-TrFE) via Photocrosslinking. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 25358-25368.	8.0	7
64	Sandwich-Doping for a Large Schottky Barrier and Long-Term Stability in Graphene/Silicon Schottky Junction Solar Cells. <i>ACS Omega</i> , 2021, 6, 3973-3979.	3.5	7
65	A graphene superficial layer for the advanced electroforming process. <i>Nanoscale</i> , 2016, 8, 12710-12714.	5.6	6
66	Swift isotropic heat transport of 3D graphene platform-based metal-graphene composites. <i>Carbon</i> , 2021, 183, 93-99.	10.3	6
67	Two-Dimensional Stacked Composites of Self-Assembled Alkane Layers and Graphene for Transparent Gas Barrier Films with Low Permeability. <i>Nano Letters</i> , 2022, 22, 286-293.	9.1	6
68	MoS <sub>2</sub> -Graphene-Mycosporine-Like Amino Acid Nanocomposite as Photocatalyst. <i>Nano</i> , 2017, 12, 1750019.	1.0	5
69	All-Solid-State Organic Schmitt Trigger Implemented by Twin Two-In-One Ferroelectric Memory Transistors. <i>Advanced Electronic Materials</i> , 2020, 6, 1901263.	5.1	5
70	Synthesis of Large-Scale Transition Metal Dichalcogenides for Their Commercialization. <i>Applied Science and Convergence Technology</i> , 2020, 29, 133-142.	0.9	5
71	Tailoring the internal structure of porous copper film via size-controlled copper nanosheets for electromagnetic interference shielding. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2022, 278, 115611.	3.5	5
72	Photothermally Crumpled MoS <sub>2</sub> Film as an Omnidirectionally Stretchable Platform. <i>Small Methods</i> , 2022, 6, e2200116.	8.6	4

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73	Coherence in defect evolution data for the ion beam irradiated graphene. Scientific Reports, 2018, 8, 13973.	3.3	3
74	Infrared Conductivity and Carrier Mobility of Large Scale Graphene on Various Substrates. Journal of Nanoscience and Nanotechnology, 2012, 12, 5816-5819.	0.9	2
75	A Multifunctional Tyrosine-Immobilized PAH Molecule as a Universal Cathode Interlayer Enables High-Efficiency Inverted Polymer Solar Cells. Advanced Optical Materials, 2021, 9, 2101006.	7.3	2
76	Quantum Dots: Enhanced Photovoltaic Performance of Inverted Polymer Solar Cells Utilizing Multifunctional Quantum-Dot Monolayers (Adv. Energy Mater. 2/2015). Advanced Energy Materials, 2015, 5, n/a-n/a.	19.5	1
77	Self-organized semiconductor nano-network on graphene. Nanotechnology, 2017, 28, 145602.	2.6	1
78	Large area thermal light emission from autonomously formed suspended graphene arrays. Carbon, 2018, 136, 217-223.	10.3	1
79	Heat dissipation of underlying multilayered graphene layers grown on Cu-Ni alloys for high-performance interconnects. Applied Surface Science, 2022, 583, 152506.	6.1	1
80	Monolayer graphene mode-locked 63-fs Ti:sapphire laser. , 2012, , .		0
81	Sub-100-fs mode-locking of the Cr:YAG laser using monolayer graphene saturable absorber. , 2013, , .		0
82	Heterostructure Arrays: Direct Synthesis of a Self-Assembled WSe <sub>2</sub> /MoS <sub>2</sub> Heterostructure Array and its Optoelectrical Properties (Adv. Mater. 43/2019). Advanced Materials, 2019, 31, 1970309.	21.0	0
83	A Multifunctional Tyrosine-Immobilized PAH Molecule as a Universal Cathode Interlayer Enables High-Efficiency Inverted Polymer Solar Cells (Advanced Optical Materials 21/2021). Advanced Optical Materials, 2021, 9, 2170088.	7.3	0