Sukang Bae

List of Publications by Citations

79 papers	12,562 citations	33 h-index	84 g-index
84 ext. papers	13,645 ext. citations	9.7 avg, IF	5.69 L-index

#	Paper	IF	Citations
79	Roll-to-roll production of 30-inch graphene films for transparent electrodes. *Nature Nanotechnology*, **2010**, 5, 574-8	28.7	6507
78	Wafer-scale synthesis and transfer of graphene films. *Nano Letters*, **2010**, 10, 490-3	11.5	932
77	Graphene for controlled and accelerated osteogenic differentiation of human mesenchymal stem cells. *ACS Nano*, **2011**, 5, 4670-8	16.7	724
76	Length-dependent thermal conductivity in suspended single-layer graphene. *Nature Communications*, **2014**, 5, 3689	17.4	603
75	Anomalous behaviors of visible luminescence from graphene quantum dots: interplay between size and shape. *ACS Nano*, **2012**, 6, 8203-8	16.7	469
74	High-performance graphene-based transparent flexible heaters. *Nano Letters*, **2011**, 11, 5154-8	11.5	396
73	Graphene transfer: key for applications. *Nanoscale*, **2012**, 4, 5527-37	7.7	352
72	Toward wafer scale fabrication of graphene based spin valve devices. *Nano Letters*, **2011**, 11, 2363-8	11.5	189
71	Flexible inorganic nanostructure light-emitting diodes fabricated on graphene films. *Advanced Materials*, **2011**, 23, 4614-9	24	186
70	Graphene-ferroelectric hybrid structure for flexible transparent electrodes. *ACS Nano*, **2012**, 6, 3935-42	16.7	156
69	Balancing light absorptivity and carrier conductivity of graphene quantum dots for high-efficiency bulk heterojunction solar cells. *ACS Nano*, **2013**, 7, 7207-12	16.7	152
68	Active control of all-fibre graphene devices with electrical gating. *Nature Communications*, **2015**, 6, 6851	17.4	127
67	Efficient Mode-Locking of Sub-70-fs Ti:Sapphire Laser by Graphene Saturable Absorber. *Applied Physics Express*, **2012**, 5, 032701	2.4	118
66	Towards industrial applications of graphene electrodes. *Physica Scripta*, **2012**, T146, 014024	2.6	117
65	Quasi-periodic nanoripples in graphene grown by chemical vapor deposition and its impact on charge transport. *ACS Nano*, **2012**, 6, 1158-64	16.7	111
64	High-quality, large-area monolayer graphene for efficient bulk laser mode-locking near 1.25 Ħh. *Optics Letters*, **2011**, 36, 4089-91	3	107
63	Reduced Water Vapor Transmission Rate of Graphene Gas Barrier Films for Flexible Organic Field-Effect Transistors. *ACS Nano*, **2015**, 9, 5818-24	16.7	79

62	Optical response of large scale single layer graphene. *Applied Physics Letters*, **2011**, 98, 071905	3.4	74
61	Wafer-scale graphene/ferroelectric hybrid devices for low-voltage electronics. *Europhysics Letters*, **2011**, 93, 17002	1.6	67
60	Number of graphene layers as a modulator of the open-circuit voltage of graphene-based solar cell. *Applied Physics Letters*, **2010**, 97, 032113	3.4	63
59	Facile and Purification-Free Synthesis of Nitrogenated Amphiphilic Graphitic Carbon Dots. *Chemistry of Materials*, **2016**, 28, 1481-1488	9.6	56
58	Far-infrared study of substrate-effect on large scale graphene. *Applied Physics Letters*, **2011**, 98, 201907	3.4	54
57	Sub-100-fs Cr:YAG laser mode-locked by monolayer graphene saturable absorber. *Optics Letters*, **2013**, 38, 1745-7	3	50
56	Rare-Earth-Element-Ytterbium-Substituted Lead-Free Inorganic Perovskite Nanocrystals for Optoelectronic Applications. *Advanced Materials*, **2019**, 31, e1901716	24	49
55	Surface-Engineered Graphene Quantum Dots Incorporated into Polymer Layers for High Performance Organic Photovoltaics. *Scientific Reports*, **2015**, 5, 14276	4.9	48
54	Nano carbon conformal coating strategy for enhanced photoelectrochemical responses and long-term stability of ZnO quantum dots. *Nano Energy*, **2015**, 13, 258-266	17.1	48
53	Origin of White Electroluminescence in Graphene Quantum Dots Embedded Host/Guest Polymer Light Emitting Diodes. *Scientific Reports*, **2015**, 5, 11032	4.9	46
52	Enhanced photovoltaic performance of inverted polymer solar cells utilizing versatile chemically functionalized ZnO@graphene quantum dot monolayer. *Nano Energy*, **2016**, 20, 221-232	17.1	40
51	Ultrastrong Graphene-Copper Core-Shell Wires for High-Performance Electrical Cables. *ACS Nano*, **2018**, 12, 2803-2808	16.7	36
50	Graphene mode-locked femtosecond Yb:KLuW laser. *Applied Physics Letters*, **2012**, 101, 161112	3.4	35
49	Multi-functional nitrogen self-doped graphene quantum dots for boosting the photovoltaic performance of BHJ solar cells. *Nano Energy*, **2017**, 34, 36-46	17.1	33
48	Direct Synthesis of a Self-Assembled WSe /MoS Heterostructure Array and its Optoelectrical Properties. *Advanced Materials*, **2019**, 31, e1904194	24	33
47	Simultaneous Etching and Doping by Cu-Stabilizing Agent for High-Performance Graphene-Based Transparent Electrodes. *Chemistry of Materials*, **2014**, 26, 2332-2336	9.6	33
46	Three-Dimensional Porous Copper-Graphene Heterostructures with Durability and High Heat Dissipation Performance. *Scientific Reports*, **2015**, 5, 12710	4.9	32
45	2D Single-Crystalline Copper Nanoplates as a Conductive Filler for Electronic Ink Applications. *Small* , **2018**, 14, 1703312	11	32

44	Hierarchical Porous Film with Layer-by-Layer Assembly of 2D Copper Nanosheets for Ultimate Electromagnetic Interference Shielding. *ACS Nano*, **2021**, 15, 829-839	16.7	31
43	Humidity-Tolerant Single-Stranded DNA-Functionalized Graphene Probe for Medical Applications of Exhaled Breath Analysis. *Advanced Functional Materials*, **2017**, 27, 1700068	15.6	29
42	Graphene quantum dots as a highly efficient solution-processed charge trapping medium for organic nano-floating gate memory. *Nanotechnology*, **2016**, 27, 145204	3.4	26
41	Low-temperature growth and direct transfer of graphene-graphitic carbon films on flexible plastic substrates. *Nanotechnology*, **2012**, 23, 344016	3.4	25
40	Low-Voltage Organic Transistor Memory Fiber with a Nanograined Organic Ferroelectric Film. *ACS Applied Materials & Interfaces*, **2019**, 11, 22575-22582	9.5	21
39	Layer-Selective Synthesis of MoS and WS Structures under Ambient Conditions for Customized Electronics. *ACS Nano*, **2020**, 14, 8485-8494	16.7	19
38	Graphene Q-switched Yb:KYW planar waveguide laser. *AIP Advances*, **2015**, 5, 017110	1.5	17
37	Stress relaxation of GaN microstructures on a graphene-buffered Al2O3 substrate. *Physica Status Solidi - Rapid Research Letters*, **2014**, 8, 341-344	2.5	17
36	Resistive switching characteristics of ZnO 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	3.5	17
35	Enhanced Photovoltaic Performance of Inverted Polymer Solar Cells Utilizing Multifunctional Quantum-Dot Monolayers. *Advanced Energy Materials*, **2015**, 5, 1401130	21.8	16
34	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	9.5	16
33	Metal nanofibrils embedded in long free-standing carbon nanotube fibers with a high critical current density. *NPG Asia Materials*, **2018**, 10, 146-155	10.3	15
32	Hybrid dielectrics composed of AlO and phosphonic acid self-assembled monolayers for performance improvement in low voltage organic field effect transistors. *Nano Convergence*, **2018**, 5, 20	9.2	15
31	Porous copper-graphene heterostructures for cooling of electronic devices. *Nanoscale*, **2017**, 9, 7565-7569	7.7	13
30	Low operational voltage and high performance organic field effect memory transistor with solution processed graphene oxide charge storage media. *Organic Electronics*, **2014**, 15, 2775-2782	3.5	12
29	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	9.5	10
28	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	7.1	10
27	Photocatalytic decomposition of graphene over a ZnO surface under UV irradiation. *Physical Chemistry Chemical Physics*, **2015**, 17, 15683-6	3.6	9

26	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	3.1	9
25	Structure-controllable growth of nitrogenated graphene quantum dots via solvent catalysis for selective C-N bond activation. *Nature Communications*, **2021**, 12, 5879	17.4	9
24	Triboelectric effect of surface morphology controlled laser induced graphene. *Journal of Materials Chemistry A*, **2020**, 8, 19822-19832	13	9
23	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	9.5	7
22	Effect of uni-axial strain on THz/far-infrared response of graphene. *Applied Physics Letters*, **2012**, 100, 041910	3.4	7
21	Performance enhancement of graphene assisted CNT/Cu composites for lightweight electrical cables. *Carbon*, **2021**, 179, 53-59	10.4	7
20	Molecular-scale charge trap medium for organic non-volatile memory transistors. *Organic Electronics*, **2015**, 27, 18-23	3.5	6
19	Integrated all-organic 8□8 one transistor-one resistor (1T-1R) crossbar resistive switching memory array. *Organic Electronics*, **2016**, 29, 66-71	3.5	6
18	Light-sensitive charge storage medium with spironaphthooxazine molecule-polymer blends for dual-functional organic phototransistor memory. *Organic Electronics*, **2020**, 78, 105554	3.5	6
17	A graphene superficial layer for the advanced electroforming process. *Nanoscale*, **2016**, 8, 12710-4	7.7	5
16	Coherence in defect evolution data for the ion beam irradiated graphene. *Scientific Reports*, **2018**, 8, 13973	4.9	3
15	Large-Area Graphene and Carbon Nanosheets for Organic Electronics: Synthesis and Growth Mechanism	81-120	3
14	MoS2-Graphene-Mycosporine-Like Amino Acid Nanocomposite as Photocatalyst. *Nano*, **2017**, 12, 1750019	1.1	2
13	All-Solid-State Organic Schmitt Trigger Implemented by Twin Two-in-One Ferroelectric Memory Transistors. *Advanced Electronic Materials*, **2020**, 6, 1901263	6.4	2
12	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	3.1	2
11	Large area thermal light emission from autonomously formed suspended graphene arrays. *Carbon*, **2018**, 136, 217-223	10.4	1
10	Infrared conductivity and carrier mobility of large scale graphene on various substrates. *Journal of Nanoscience and Nanotechnology*, **2012**, 12, 5816-9	1.3	1
9	Synthesis of Large-Scale Transition Metal Dichalcogenides for Their Commercialization. *Applied Science and Convergence Technology*, **2020**, 29, 133-142	0.8	1

8	A Multifunctional Tyrosine-Immobilized PAH Molecule as a Universal Cathode Interlayer Enables High-Efficiency Inverted Polymer Solar Cells. *Advanced Optical Materials*, **2021**, 9, 2101006	8.1	1
7	Swift isotropic heat transport of 3D graphene platform-based metal-graphene composites. *Carbon*, **2021**, 183, 93-99	10.4	1
6	Self-organized semiconductor nano-network on graphene. *Nanotechnology*, **2017**, 28, 145602	3.4	0
5	Sandwich-Doping for a Large Schottky Barrier and Long-Term Stability in Graphene/Silicon Schottky Junction Solar Cells. *ACS Omega*, **2021**, 6, 3973-3979	3.9	0
4	Photothermally Crumpled MoS Film as an Omnidirectionally Stretchable Platform.. *Small Methods*, **2022**, e2200116	12.8	0
3	Heterostructure Arrays: Direct Synthesis of a Self-Assembled WSe2/MoS2 Heterostructure Array and its Optoelectrical Properties (Adv. Mater. 43/2019). *Advanced Materials*, **2019**, 31, 1970309	24	
2	Heat dissipation of underlying multilayered graphene layers grown on CuNi alloys for high-performance interconnects. *Applied Surface Science*, **2022**, 583, 152506	6.7	
1	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	8.1	