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	Two-Dimensional Stacked Composites of Self-Assembled Alkane Layers and Graphene for Transparent Gas Barrier Films with Low Permeability. Nano Letters, 2022, 22, 286-293.	9.1	6
2	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.	3.5	5
3	Heat dissipation of underlying multilayered graphene layers grown on Cuâ€“Ni alloys for high-performance interconnects. Applied Surface Science, 2022, 583, 152506.	6.1	1
4	Photothermally Crumpled MoS₂ Film as an Omnidirectionally Stretchable Platform. Small Methods, 2022, 6, e2200116.	8.6	4
5	Integration of multiple electronic components on a microfibre towards an emerging electronic textile platform. Nature Communications, 2022, 13, .	12.8	27
6	Sandwich-Doping for a Large Schottky Barrier and Long-Term Stability in Graphene/Silicon Schottky Junction Solar Cells. ACS Omega, 2021, 6, 3973-3979.	3.5	7
7	Performance enhancement of graphene assisted CNT/Cu composites for lightweight electrical cables. Carbon, 2021, 179, 53-59.	10.3	15
8	A Multifunctional Tyrosineâ€Immobilized PAH Molecule as a Universal Cathode Interlayer Enables Highâ€Efficiency Inverted Polymer Solar Cells. Advanced Optical Materials, 2021, 9, 2101006.	7.3	2
9	Swift isotropic heat transport of 3D graphene platform-based metal-graphene composites. Carbon, 2021, 183, 93-99.	10.3	6
10	Hierarchical Porous Film with Layer-by-Layer Assembly of 2D Copper Nanosheets for Ultimate Electromagnetic Interference Shielding. ACS Nano, 2021, 15, 829-839.	14.6	85
11	Structure-controllable growth of nitrogenated graphene quantum dots via solvent catalysis for selective C-N bond activation. Nature Communications, 2021, 12, 5879.	12.8	25
12	A Multifunctional Tyrosineâ€Immobilized PAH Molecule as a Universal Cathode Interlayer Enables Highâ€Efficiency Inverted Polymer Solar Cells (Advanced Optical Materials 21/2021). Advanced Optical Materials, 2021, 9, 2170088.	7.3	0
13	Light-sensitive charge storage medium with spironaphthooxazine molecule-polymer blends for dual-functional organic phototransistor memory. Organic Electronics, 2020, 78, 105554.	2.6	8
14	Triboelectric effect of surface morphology controlled laser induced graphene. Journal of Materials Chemistry A, 2020, 8, 19822-19832.	10.3	34
15	Layer-Selective Synthesis of MoS₂ and WS₂ Structures under Ambient Conditions for Customized Electronics. ACS Nano, 2020, 14, 8485-8494.	14.6	41
16	Allâ€Solidâ€State Organic Schmitt Trigger Implemented by Twin Twoâ€inâ€One Ferroelectric Memory Transistors. Advanced Electronic Materials, 2020, 6, 1901263.	5.1	5
17	Synthesis of Large-Scale Transition Metal Dichalcogenides for Their Commercialization. Applied Science and Convergence Technology, 2020, 29, 133-142.	0.9	5
18	Heterostructure Arrays: Direct Synthesis of a Selfâ€Assembled WSe₂/MoS₂ Heterostructure Array and its Optoelectrical Properties (Adv. Mater. 43/2019). Advanced Materials, 2019, 31, 1970309.	21.0	0

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19	Direct Synthesis of a Selfâ€Assembled WSe₂/MoS₂ Heterostructure Array and its Optoelectrical Properties. Advanced Materials, 2019, 31, e1904194.	21.0	47
20	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.	8.0	7
21	Rareâ€Earthâ€Elementâ€Ytterbiumâ€Substituted Leadâ€Free Inorganic Perovskite Nanocrystals for Optoelectronic Applications. Advanced Materials, 2019, 31, e1901716.	21.0	81
22	Low-Voltage Organic Transistor Memory Fiber with a Nanograined Organic Ferroelectric Film. ACS Applied Materials & Interfaces, 2019, 11, 22575-22582.	8.0	33
23	Ultrastrong Grapheneâ€“Copper Coreâ€“Shell Wires for High-Performance Electrical Cables. ACS Nano, 2018, 12, 2803-2808.	14.6	52
24	Metal nanofibrils embedded in long free-standing carbon nanotube fibers with a high critical current density. NPG Asia Materials, 2018, 10, 146-155.	7.9	23
25	2D Singleâ€Crystalline Copper Nanoplates as a Conductive Filler for Electronic Ink Applications. Small, 2018, 14, 1703312.	10.0	47
26	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.	8.0	21
27	Large area thermal light emission from autonomously formed suspended graphene arrays. Carbon, 2018, 136, 217-223.	10.3	1
28	Hybrid dielectrics composed of Al2O3 and phosphonic acid self-assembled monolayers for performance improvement in low voltage organic field effect transistors. Nano Convergence, 2018, 5, 20.	12.1	22
29	Coherence in defect evolution data for the ion beam irradiated graphene. Scientific Reports, 2018, 8, 13973.	3.3	3
30	Self-organized semiconductor nano-network on graphene. Nanotechnology, 2017, 28, 145602.	2.6	1
31	MoS₂-Graphene-Mycosporine-Like Amino Acid Nanocomposite as Photocatalyst. Nano, 2017, 12, 1750019.	1.0	5
32	Multi-functional nitrogen self-doped graphene quantum dots for boosting the photovoltaic performance of BHJ solar cells. Nano Energy, 2017, 34, 36-46.	16.0	45
33	Humidityâ€Tolerant Singleâ€Stranded DNAâ€Functionalized Graphene Probe for Medical Applications of Exhaled Breath Analysis. Advanced Functional Materials, 2017, 27, 1700068.	14.9	47
34	Porous copperâ€“graphene heterostructures for cooling of electronic devices. Nanoscale, 2017, 9, 7565-7569.	5.6	17
35	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.	8.0	10
36	Integrated all-organic 8ÂÃ—Â8 one transistor-one resistor (1T-1R) crossbar resistive switching memory array. Organic Electronics, 2016, 29, 66-71.	2.6	7

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37	Enhanced photovoltaic performance of inverted polymer solar cells utilizing versatile chemically functionalized ZnO@graphene quantum dot monolayer. Nano Energy, 2016, 20, 221-232.	16.0	44
38	Facile and Purification-Free Synthesis of Nitrogenated Amphiphilic Graphitic Carbon Dots. Chemistry of Materials, 2016, 28, 1481-1488.	6.7	74
39	A graphene superficial layer for the advanced electroforming process. Nanoscale, 2016, 8, 12710-12714.	5.6	6
40	Graphene quantum dots as a highly efficient solution-processed charge trapping medium for organic nano-floating gate memory. Nanotechnology, 2016, 27, 145204.	2.6	27
41	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.	5.5	14
42	Surface-Engineered Graphene Quantum Dots Incorporated into Polymer Layers for High Performance Organic Photovoltaics. Scientific Reports, 2015, 5, 14276.	3.3	56
43	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
44	Nano carbon conformal coating strategy for enhanced photoelectrochemical responses and long-term stability of ZnO quantum dots. Nano Energy, 2015, 13, 258-266.	16.0	53
45	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. Organic Electronics, 2015, 18, 77-83.	2.6	18
46	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
47	Origin of White Electroluminescence in Graphene Quantum Dots Embedded Host/Guest Polymer Light Emitting Diodes. Scientific Reports, 2015, 5, 11032.	3.3	54
48	Graphene Q-switched Yb:KYW planar waveguide laser. AIP Advances, 2015, 5, .	1.3	20
49	Active control of all-fibre graphene devices with electrical gating. Nature Communications, 2015, 6, 6851.	12.8	159
50	Photocatalytic decomposition of graphene over a ZnO surface under UV irradiation. Physical Chemistry Chemical Physics, 2015, 17, 15683-15686.	2.8	9
51	Three-Dimensional Porous Copper-Graphene Heterostructures with Durability and High Heat Dissipation Performance. Scientific Reports, 2015, 5, 12710.	3.3	40
52	Molecular-scale charge trap medium for organic non-volatile memory transistors. Organic Electronics, 2015, 27, 18-23.	2.6	8
53	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.	3.5	9
54	Enhanced Photovoltaic Performance of Inverted Polymer Solar Cells Utilizing Multifunctional Quantumâ€Đot Monolayers. Advanced Energy Materials, 2015, 5, 1401130.	19.5	20

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55	Simultaneous Etching and Doping by Cu-Stabilizing Agent for High-Performance Graphene-Based Transparent Electrodes. Chemistry of Materials, 2014, 26, 2332-2336.	6.7	40
56	Stress relaxation of GaN microstructures on a grapheneâ€buffered Al₂O₃ substrate. Physica Status Solidi - Rapid Research Letters, 2014, 8, 341-344.	2.4	23
57	Length-dependent thermal conductivity in suspended single-layer graphene. Nature Communications, 2014, 5, 3689.	12.8	735
58	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.	2.6	13
59	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
60	Sub-100-fs Cr:YAG laser mode-locked by monolayer graphene saturable absorber. Optics Letters, 2013, 38, 1745.	3.3	54
61	Sub-100-fs mode-locking of the Cr:YAG laser using monolayer graphene saturable absorber. , 2013, , .		0
62	Low-temperature growth and direct transfer of grapheneâ€“graphitic carbon films on flexible plastic substrates. Nanotechnology, 2012, 23, 344016.	2.6	28
63	Infrared Conductivity and Carrier Mobility of Large Scale Graphene on Various Substrates. Journal of Nanoscience and Nanotechnology, 2012, 12, 5816-5819.	0.9	2
64	Monolayer graphene mode-locked 63-fs Ti:sapphire laser. , 2012, , .		0
65	Graphene mode-locked femtosecond Yb:KLuW laser. Applied Physics Letters, 2012, 101, .	3.3	39
66	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
67	Efficient Mode-Locking of Sub-70-fs Ti:Sapphire Laser by Graphene Saturable Absorber. Applied Physics Express, 2012, 5, 032701.	2.4	140
68	Anomalous Behaviors of Visible Luminescence from Graphene Quantum Dots: Interplay between Size and Shape. ACS Nano, 2012, 6, 8203-8208.	14.6	563
69	Graphene transfer: key for applications. Nanoscale, 2012, 4, 5527.	5.6	405
70	Effect of uni-axial strain on THz/far-infrared response of graphene. Applied Physics Letters, 2012, 100, .	3.3	8
71	Towards industrial applications of graphene electrodes. Physica Scripta, 2012, T146, 014024.	2.5	131
72	Grapheneâ€“Ferroelectric Hybrid Structure for Flexible Transparent Electrodes. ACS Nano, 2012, 6, 3935-3942.	14.6	167

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73	Optical response of large scale single layer graphene. Applied Physics Letters, 2011, 98, .	3.3	87
74	Wafer-scale graphene/ferroelectric hybrid devices for low-voltage electronics. Europhysics Letters, 2011, 93, 17002.	2.0	74
75	Far-infrared study of substrate-effect on large scale graphene. Applied Physics Letters, 2011, 98, .	3.3	58
76	Toward Wafer Scale Fabrication of Graphene Based Spin Valve Devices. Nano Letters, 2011, 11, 2363-2368.	9.1	214
77	High-quality, large-area monolayer graphene for efficient bulk laser mode-locking near 125â€‰Î¼m. Optics Letters, 2011, 36, 4089.	3.3	128
78	High-Performance Graphene-Based Transparent Flexible Heaters. Nano Letters, 2011, 11, 5154-5158.	9.1	457
79	Graphene for Controlled and Accelerated Osteogenic Differentiation of Human Mesenchymal Stem Cells. ACS Nano, 2011, 5, 4670-4678.	14.6	819
80	Flexible Inorganic Nanostructure Lightâ€Emitting Diodes Fabricated on Graphene Films. Advanced Materials, 2011, 23, 4614-4619.	21.0	210
81	Roll-to-roll production of 30-inch graphene films for transparent electrodes. Nature Nanotechnology, 2010, 5, 574-578.	31.5	7,294
82	Number of graphene layers as a modulator of the open-circuit voltage of graphene-based solar cell. Applied Physics Letters, 2010, 97, .	3.3	70
83	Wafer-Scale Synthesis and Transfer of Graphene Films. Nano Letters, 2010, 10, 490-493.	9.1	1,062