Sang-Hoon Bae

List of Publications by Year
in descending order

55	8,731	71102 41	168389 53
papers	citations	h-index	g-index

57	57	57	13966
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Extremely efficient flexible organic light-emitting diodes with modified graphene anode. Nature Photonics, 2012, 6, 105-110.	31.4	1,272
2	Single Crystal Formamidinium Lead Iodide (FAPbI₃): Insight into the Structural, Optical, and Electrical Properties. Advanced Materials, 2016, 28, 2253-2258.	21.0	781
3	Graphene-based transparent strain sensor. Carbon, 2013, 51, 236-242.	10.3	711
4	Recent Progress in Materials and Devices toward Printable and Flexible Sensors. Advanced Materials, 2016, 28, 4415-4440.	21.0	643
5	Perovskite-polymer composite cross-linker approach for highly-stable and efficient perovskite solar cells. Nature Communications, 2019, 10, 520.	12.8	405
6	A Bifunctional Lewis Base Additive for Microscopic Homogeneity in Perovskite Solar Cells. CheM, 2017, 3, 290-302.	11.7	335
7	High-performance perovskite/Cu(In,Ga)Se ₂ monolithic tandem solar cells. Science, 2018, 361, 904-908.	12.6	314
8	Path towards graphene commercialization from lab to market. Nature Nanotechnology, 2019, 14, 927-938.	31.5	235
9	The Interplay between Trap Density and Hysteresis in Planar Heterojunction Perovskite Solar Cells. Nano Letters, 2017, 17, 4270-4276.	9.1	226
10	Graphene-P(VDF-TrFE) Multilayer Film for Flexible Applications. ACS Nano, 2013, 7, 3130-3138.	14.6	220
11	Heterogeneous integration of single-crystalline complex-oxide membranes. Nature, 2020, 578, 75-81.	27.8	218
12	Integration of bulk materials with two-dimensional materials for physical coupling and applications. Nature Materials, 2019, 18, 550-560.	27.5	211
13	The role of grain boundaries in perovskite solar cells. Materials Today Energy, 2018, 7, 149-160.	4.7	209
14	Controlled crack propagation for atomic precision handling of wafer-scale two-dimensional materials. Science, 2018, 362, 665-670.	12.6	208
15	Polarity governs atomic interaction through two-dimensional materials. Nature Materials, 2018, 17, 999-1004.	27.5	182
16	Epitaxial growth and layer-transfer techniques for heterogeneous integration of materials for electronic and photonic devices. Nature Electronics, 2019, 2, 439-450.	26.0	155
17	Selfâ€Healing Reduced Graphene Oxide Films by Supersonic Kinetic Spraying. Advanced Functional Materials, 2014, 24, 4986-4995.	14.9	151
18	Perovskite/polymer monolithic hybrid tandem solar cells utilizing a low-temperature, full solution process. Materials Horizons, 2015, 2, 203-211.	12.2	148

#	Article	IF	Citations
19	Ultrahigh and Broad Spectral Photodetectivity of an Organicâ€“Inorganic Hybrid Phototransistor for Flexible Electronics. Advanced Materials, 2015, 27, 6885-6891.	21.0	137
20	Direct Light Pattern Integration of Low-Temperature Solution-Processed All-Oxide Flexible Electronics. ACS Nano, 2014, 8, 9680-9686.	14.6	128
21	Printable Ultrathin Metal Oxide Semiconductor-Based Conformal Biosensors. ACS Nano, 2015, 9, 12174-12181.	14.6	126
22	Ledge-directed epitaxy of continuously self-aligned single-crystalline nanoribbons of transition metal dichalcogenides. Nature Materials, 2020, 19, 1300-1306.	27.5	104
23	Morphology Evolution of High Efficiency Perovskite Solar Cells via Vapor Induced Intermediate Phases. Journal of the American Chemical Society, 2016, 138, 15710-15716.	13.7	102
24	Extremely stable graphene electrodes doped with macromolecular acid. Nature Communications, 2018, 9, 2037.	12.8	96
25	Ultrathin Organic Solar Cells with Graphene Doped by Ferroelectric Polarization. ACS Applied Materials & Interfaces, 2014, 6, 3299-3304.	8.0	91
26	Long-term reliable physical health monitoring by sweat poreâ€“inspired perforated electronic skins. Science Advances, 2021, 7, .	10.3	89
27	Organic solar cells using CVD-grown graphene electrodes. Nanotechnology, 2014, 25, 014012.	2.6	81
28	Loadâ€Controlled Roll Transfer of Oxide Transistors for Stretchable Electronics. Advanced Functional Materials, 2013, 23, 2024-2032.	14.9	78
29	Hexaaqua Metal Complexes for Low-Temperature Formation of Fully Metal Oxide Thin-Film Transistors. Chemistry of Materials, 2015, 27, 5808-5812.	6.7	77
30	Versatile on-chip light coupling and (de)multiplexing from arbitrary polarizations to controlled waveguide modes using an integrated dielectric metasurface. Photonics Research, 2020, 8, 564.	7.0	74
31	Interface Engineering of Metal Oxide Semiconductors for Biosensing Applications. Advanced Materials Interfaces, 2017, 4, 1700020.	3.7	72
32	Graphene-assisted spontaneous relaxation towards dislocation-free heteroepitaxy. Nature Nanotechnology, 2020, 15, 272-276.	31.5	71
33	Printable Solar Cells from Advanced Solution-Processible Materials. CheM, 2016, 1, 197-219.	11.7	68
34	Mechanical and Environmental Stability of Polymer Thin-Film-Coated Graphene. ACS Nano, 2012, 6, 2096-2103.	14.6	61
35	Impact of 2Dâ€“3D Heterointerface on Remote Epitaxial Interaction through Graphene. ACS Nano, 2021, 15, 10587-10596.	14.6	57
36	Reconfigurable heterogeneous integration using stackable chips with embedded artificial intelligence. Nature Electronics, 2022, 5, 386-393.	26.0	57

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37	Approaching ultimate flexible organic light-emitting diodes using a graphene anode. NPG Asia Materials, 2016, 8, e303-e303.	7.9	55
38	Halide Perovskites for Tandem Solar Cells. Journal of Physical Chemistry Letters, 2017, 8, 1999-2011.	4.6	47
39	Remote epitaxy. Nature Reviews Methods Primers, 2022, 2, .	21.2	47
40	Onâ€Fabrication Solidâ€State Nâ€Doping of Graphene by an Electronâ€Transporting Metal Oxide Layer for Efficient Inverted Organic Solar Cells. Advanced Energy Materials, 2016, 6, 1600172.	19.5	46
41	Enhanced interlayer neutral excitons and trions in trilayer van der Waals heterostructures. Npj 2D Materials and Applications, 2018, 2, .	7.9	44
42	Laserâ€Irradiated Holey Grapheneâ€Supported Singleâ€Atom Catalyst towards Hydrogen Evolution and Oxygen Reduction. Advanced Energy Materials, 2021, 11, 2101619.	19.5	43
43	Value-added Synthesis of Graphene: Recycling Industrial Carbon Waste into Electrodes for High-Performance Electronic Devices. Scientific Reports, 2015, 5, 16710.	3.3	36
44	Graphene-Based Heat Spreader for Flexible Electronic Devices. IEEE Transactions on Electron Devices, 2014, 61, 4171-4175.	3.0	35
45	Unveiling the carrier transport mechanism in epitaxial graphene for forming wafer-scale, single-domain graphene. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 4082-4086.	7.1	34
46	Chip-integrated metasurface for versatile and multi-wavelength control of light couplings with independent phase and arbitrary polarization. Optics Express, 2019, 27, 16425.	3.4	33
47	Large-Area, Ultrathin Metal-Oxide Semiconductor Nanoribbon Arrays Fabricated by Chemical Lift-Off Lithography. Nano Letters, 2018, 18, 5590-5595.	9.1	27
48	Boosting Responsivity of Organicâ€“Metal Oxynitride Hybrid Heterointerface Phototransistor. ACS Applied Materials & Interfaces, 2016, 8, 14665-14670.	8.0	25
49	Highâ€Efficiency Organic Tandem Solar Cells With Effective Transition Metal Chelates Interconnecting Layer. Solar Rrl, 2017, 1, 1700139.	5.8	19
50	Improvement of work function and hole injection efficiency of graphene anode using CHF ‹sub›3‹/sub› plasma treatment. 2D Materials, 2015, 2, 014002.	4.4	17
51	Uncovering material deformations via machine learning combined with four-dimensional scanning transmission electron microscopy. Npj Computational Materials, 2022, 8, .	8.7	15
52	Hybrid Integrated Photomedical Devices for Wearable Vital Sign Tracking. ACS Sensors, 2020, 5, 1582-1588.	7.8	14
53	P-6: Aqueous Precursor Based Solution-Processed Metal Oxide Semiconductor. Digest of Technical Papers SID International Symposium, 2016, 47, 1140-1142.	0.3	1
54	On-chip mode-controlled waveguiding and versatile multiwavelength light routing using chip-integrated dielectric metasurface for arbitrary polarizations. , 2020, , .		0

#	Article	IF	Citations
55	Chip-scale mode-configurable light couplers and vortex beam generators using waveguide-integrated metasurface. , 2020, , .		0