

Sang-Hoon Bae

List of Publications by Year in descending order

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Version: 2024-02-01

55
papers

8,731
citations

71102

41
h-index

168389

53
g-index

57
all docs

57
docs citations

57
times ranked

13966
citing authors

#	ARTICLE	IF	CITATIONS
1	Uncovering material deformations via machine learning combined with four-dimensional scanning transmission electron microscopy. <i>Npj Computational Materials</i> , 2022, 8, .	8.7	15
2	Remote epitaxy. <i>Nature Reviews Methods Primers</i> , 2022, 2, .	21.2	47
3	Reconfigurable heterogeneous integration using stackable chips with embedded artificial intelligence. <i>Nature Electronics</i> , 2022, 5, 386-393.	26.0	57
4	Impact of 2D-3D Heterointerface on Remote Epitaxial Interaction through Graphene. <i>ACS Nano</i> , 2021, 15, 10587-10596.	14.6	57
5	Long-term reliable physical health monitoring by sweat pore-inspired perforated electronic skins. <i>Science Advances</i> , 2021, 7, .	10.3	89
6	Laser-irradiated Holey Graphene-Supported Single-Atom Catalyst towards Hydrogen Evolution and Oxygen Reduction. <i>Advanced Energy Materials</i> , 2021, 11, 2101619.	19.5	43
7	Ledge-directed epitaxy of continuously self-aligned single-crystalline nanoribbons of transition metal dichalcogenides. <i>Nature Materials</i> , 2020, 19, 1300-1306.	27.5	104
8	Hybrid Integrated Photomedical Devices for Wearable Vital Sign Tracking. <i>ACS Sensors</i> , 2020, 5, 1582-1588.	7.8	14
9	Graphene-assisted spontaneous relaxation towards dislocation-free heteroepitaxy. <i>Nature Nanotechnology</i> , 2020, 15, 272-276.	31.5	71
10	Heterogeneous integration of single-crystalline complex-oxide membranes. <i>Nature</i> , 2020, 578, 75-81.	27.8	218
11	Versatile on-chip light coupling and (de)multiplexing from arbitrary polarizations to controlled waveguide modes using an integrated dielectric metasurface. <i>Photonics Research</i> , 2020, 8, 564.	7.0	74
12	On-chip mode-controlled waveguiding and versatile multiwavelength light routing using chip-integrated dielectric metasurface for arbitrary polarizations. , 2020, , .		0
13	Chip-scale mode-configurable light couplers and vortex beam generators using waveguide-integrated metasurface. , 2020, , .		0
14	Perovskite-polymer composite cross-linker approach for highly-stable and efficient perovskite solar cells. <i>Nature Communications</i> , 2019, 10, 520.	12.8	405
15	Integration of bulk materials with two-dimensional materials for physical coupling and applications. <i>Nature Materials</i> , 2019, 18, 550-560.	27.5	211
16	Path towards graphene commercialization from lab to market. <i>Nature Nanotechnology</i> , 2019, 14, 927-938.	31.5	235
17	Epitaxial growth and layer-transfer techniques for heterogeneous integration of materials for electronic and photonic devices. <i>Nature Electronics</i> , 2019, 2, 439-450.	26.0	155
18	Chip-integrated metasurface for versatile and multi-wavelength control of light couplings with independent phase and arbitrary polarization. <i>Optics Express</i> , 2019, 27, 16425.	3.4	33

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19	The role of grain boundaries in perovskite solar cells. <i>Materials Today Energy</i> , 2018, 7, 149-160.	4.7	209
20	Polarity governs atomic interaction through two-dimensional materials. <i>Nature Materials</i> , 2018, 17, 999-1004.	27.5	182
21	Controlled crack propagation for atomic precision handling of wafer-scale two-dimensional materials. <i>Science</i> , 2018, 362, 665-670.	12.6	208
22	Enhanced interlayer neutral excitons and trions in trilayer van der Waals heterostructures. <i>Npj 2D Materials and Applications</i> , 2018, 2, .	7.9	44
23	High-performance perovskite/Cu(In,Ga)Se ₂ monolithic tandem solar cells. <i>Science</i> , 2018, 361, 904-908.	12.6	314
24	Extremely stable graphene electrodes doped with macromolecular acid. <i>Nature Communications</i> , 2018, 9, 2037.	12.8	96
25	Large-Area, Ultrathin Metal-Oxide Semiconductor Nanoribbon Arrays Fabricated by Chemical Lift-Off Lithography. <i>Nano Letters</i> , 2018, 18, 5590-5595.	9.1	27
26	Interface Engineering of Metal Oxide Semiconductors for Biosensing Applications. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700020.	3.7	72
27	Halide Perovskites for Tandem Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 1999-2011.	4.6	47
28	The Interplay between Trap Density and Hysteresis in Planar Heterojunction Perovskite Solar Cells. <i>Nano Letters</i> , 2017, 17, 4270-4276.	9.1	226
29	Unveiling the carrier transport mechanism in epitaxial graphene for forming wafer-scale, single-domain graphene. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 4082-4086.	7.1	34
30	High-Efficiency Organic Tandem Solar Cells With Effective Transition Metal Chelates Interconnecting Layer. <i>Solar Rrl</i> , 2017, 1, 1700139.	5.8	19
31	A Bifunctional Lewis Base Additive for Microscopic Homogeneity in Perovskite Solar Cells. <i>Chem</i> , 2017, 3, 290-302.	11.7	335
32	P-6: Aqueous Precursor Based Solution-Processed Metal Oxide Semiconductor. <i>Digest of Technical Papers SID International Symposium</i> , 2016, 47, 1140-1142.	0.3	1
33	Recent Progress in Materials and Devices toward Printable and Flexible Sensors. <i>Advanced Materials</i> , 2016, 28, 4415-4440.	21.0	643
34	Boosting Responsivity of Organic-Metal Oxynitride Hybrid Heterointerface Phototransistor. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 14665-14670.	8.0	25
35	Printable Solar Cells from Advanced Solution-Processible Materials. <i>Chem</i> , 2016, 1, 197-219.	11.7	68
36	Approaching ultimate flexible organic light-emitting diodes using a graphene anode. <i>NPG Asia Materials</i> , 2016, 8, e303-e303.	7.9	55

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37	Morphology Evolution of High Efficiency Perovskite Solar Cells via Vapor Induced Intermediate Phases. <i>Journal of the American Chemical Society</i> , 2016, 138, 15710-15716.	13.7	102
38	Single Crystal Formamidinium Lead Iodide (FAPbI ₃): Insight into the Structural, Optical, and Electrical Properties. <i>Advanced Materials</i> , 2016, 28, 2253-2258.	21.0	781
39	On-Fabrication Solid-State Doping of Graphene by an Electron-Transporting Metal Oxide Layer for Efficient Inverted Organic Solar Cells. <i>Advanced Energy Materials</i> , 2016, 6, 1600172.	19.5	46
40	Value-added Synthesis of Graphene: Recycling Industrial Carbon Waste into Electrodes for High-Performance Electronic Devices. <i>Scientific Reports</i> , 2015, 5, 16710.	3.3	36
41	Perovskite/polymer monolithic hybrid tandem solar cells utilizing a low-temperature, full solution process. <i>Materials Horizons</i> , 2015, 2, 203-211.	12.2	148
42	Improvement of work function and hole injection efficiency of graphene anode using CHF ₃ plasma treatment. <i>2D Materials</i> , 2015, 2, 014002.	4.4	17
43	Printable Ultrathin Metal Oxide Semiconductor-Based Conformal Biosensors. <i>ACS Nano</i> , 2015, 9, 12174-12181.	14.6	126
44	Ultrahigh and Broad Spectral Photodetectivity of an Organic-Inorganic Hybrid Phototransistor for Flexible Electronics. <i>Advanced Materials</i> , 2015, 27, 6885-6891.	21.0	137
45	Hexaqua Metal Complexes for Low-Temperature Formation of Fully Metal Oxide Thin-Film Transistors. <i>Chemistry of Materials</i> , 2015, 27, 5808-5812.	6.7	77
46	Graphene-Based Heat Spreader for Flexible Electronic Devices. <i>IEEE Transactions on Electron Devices</i> , 2014, 61, 4171-4175.	3.0	35
47	Self-Healing Reduced Graphene Oxide Films by Supersonic Kinetic Spraying. <i>Advanced Functional Materials</i> , 2014, 24, 4986-4995.	14.9	151
48	Direct Light Pattern Integration of Low-Temperature Solution-Processed All-Oxide Flexible Electronics. <i>ACS Nano</i> , 2014, 8, 9680-9686.	14.6	128
49	Ultrathin Organic Solar Cells with Graphene Doped by Ferroelectric Polarization. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 3299-3304.	8.0	91
50	Organic solar cells using CVD-grown graphene electrodes. <i>Nanotechnology</i> , 2014, 25, 014012.	2.6	81
51	Graphene-based transparent strain sensor. <i>Carbon</i> , 2013, 51, 236-242.	10.3	711
52	Graphene-P(VDF-TrFE) Multilayer Film for Flexible Applications. <i>ACS Nano</i> , 2013, 7, 3130-3138.	14.6	220
53	Load-Controlled Roll Transfer of Oxide Transistors for Stretchable Electronics. <i>Advanced Functional Materials</i> , 2013, 23, 2024-2032.	14.9	78
54	Extremely efficient flexible organic light-emitting diodes with modified graphene anode. <i>Nature Photonics</i> , 2012, 6, 105-110.	31.4	1,272

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55	Mechanical and Environmental Stability of Polymer Thin-Film-Coated Graphene. ACS Nano, 2012, 6, 2096-2103.	14.6	61