Gang Hee Han

List of Publications by Year
in descending order

69 papers	8,691 citations	53794 45 h-index	98798 67 g-index
70 all docs	70 docs citations	70 times ranked	14069 citing authors

#	Article	IF	Citations
1	Locally enhanced lightâ€“matter interaction of MoS2 monolayers at density-controllable nanogrooves of template-stripped Ag films. Current Applied Physics, 2022, 33, 59-65.	2.4	6
2	Quantum critical scaling for finite-temperature Mott-like metal-insulator crossover in few-layered <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>MoS</mml:mi><mml:mn>2</mml:mn></mm Physical Review B, 2020, 102, .	3.2	11
3	Edge Contact for Carrier Injection and Transport in MoS₂ Field-Effect Transistors. ACS Nano, 2019, 13, 13169-13175.	14.6	47
4	Anomalous Conductance near Percolative Metalâ€“Insulator Transition in Monolayer MoS2 at Low Voltage Regime. ACS Nano, 2019, 13, 6631-6637.	14.6	11
5	van der Waals Metallic Transition Metal Dichalcogenides. Chemical Reviews, 2018, 118, 6297-6336.	47.7	252
6	Soft Coulomb gap and asymmetric scaling towards metal-insulator quantum criticality in multilayer MoS2. Nature Communications, 2018, 9, 2052.	12.8	27
7	Recent development of two-dimensional transition metal dichalcogenides and their applications. Materials Today, 2017, 20, 116-130.	14.2	1,852
8	Thickness-dependent in-plane thermal conductivity of suspended MoS₂ grown by chemical vapor deposition. Nanoscale, 2017, 9, 2541-2547.	5.6	86
9	Near-field spectral mapping of individual exciton complexes of monolayer WS₂correlated with local defects and charge population. Nanoscale, 2017, 9, 2272-2278.	5.6	44
10	Understanding Coulomb Scattering Mechanism in Monolayer MoS₂ Channel in the Presence of <i>h</i>-BN Buffer Layer. ACS Applied Materials & Interfaces, 2017, 9, 5006-5013.	8.0	37
11	Junction-Structure-Dependent Schottky Barrier Inhomogeneity and Device Ideality of Monolayer MoS₂ Field-Effect Transistors. ACS Applied Materials & Interfaces, 2017, 9, 11240-11246.	8.0	57
12	Integrated Freestanding Twoâ€dimensional Transition Metal Dichalcogenides. Advanced Materials, 2017, 29, 1700308.	21.0	33
13	Simple Chemical Treatment to n-Dope Transition-Metal Dichalcogenides and Enhance the Optical and Electrical Characteristics. ACS Applied Materials & Interfaces, 2017, 9, 11950-11958.	8.0	31
14	Observation of Charge Transfer in Heterostructures Composed of MoSe₂ Quantum Dots and a Monolayer of MoS₂ or WSe₂. Journal of Physical Chemistry C, 2017, 121, 1997-2004.	3.1	41
15	Role of alkali metal promoter in enhancing lateral growth of monolayer transition metal dichalcogenides. Nanotechnology, 2017, 28, 36LT01.	2.6	56
16	Dependence of Raman and absorption spectra of stacked bilayer MoS_2 on the stacking orientation. Optics Express, 2016, 24, 21551.	3.4	18
17	Large Work Function Modulation of Monolayer MoS₂ by Ambient Gases. ACS Nano, 2016, 10, 6100-6107.	14.6	188
18	Simultaneous Hosting of Positive and Negative Trions and the Enhanced Direct Band Emission in MoSe₂/MoS₂ Heterostacked Multilayers. ACS Nano, 2016, 10, 6211-6219.	14.6	62

#	Article	IF	Citations
19	Load-Dependent Friction Hysteresis on Graphene. ACS Nano, 2016, 10, 5161-5168.	14.6	56
20	Photochemical Reaction in Monolayer MoS₂ <i>via</i> Correlated Photoluminescence, Raman Spectroscopy, and Atomic Force Microscopy. ACS Nano, 2016, 10, 5230-5236.	14.6	101
21	Absorption dichroism of monolayer 1Tâ€²-MoTe ₂ in visible range. 2D Materials, 2016, 3, 031010.	4.4	32
22	Stranskiâ€"Krastanov and Volmerâ€"Weber CVD Growth Regimes To Control the Stacking Order in Bilayer Graphene. Nano Letters, 2016, 16, 6403-6410.	9.1	95
23	Enhanced Light Emission from Monolayer Semiconductors by Forming Heterostructures with ZnO Thin Films. ACS Applied Materials & Interfaces, 2016, 8, 28809-28815.	8.0	47
24	Optical Gain in MoS₂ <i>via</i> Coupling with Nanostructured Substrate: Fabryâ€"Perot Interference and Plasmonic Excitation. ACS Nano, 2016, 10, 8192-8198.	14.6	69
25	Electron Excess Doping and Effective Schottky Barrier Reduction on the MoS₂/<i>h</i>-BN Heterostructure. Nano Letters, 2016, 16, 6383-6389.	9.1	78
26	Vertically Conductive MoS₂ Spiral Pyramid. Advanced Materials, 2016, 28, 7723-7728.	21.0	63
27	Modulating Electronic Properties of Monolayer MoS₂ <i>via</i> Electron-Withdrawing Functional Groups of Graphene Oxide. ACS Nano, 2016, 10, 10446-10453.	14.6	41
28	Misorientation-angle-dependent electrical transport across molybdenum disulfide grain boundaries. Nature Communications, 2016, 7, 10426.	12.8	172
29	Biexciton Emission from Edges and Grain Boundaries of Triangular WS₂ Monolayers. ACS Nano, 2016, 10, 2399-2405.	14.6	220
30	Visualizing Point Defects in Transition-Metal Dichalcogenides Using Optical Microscopy. ACS Nano, 2016, 10, 770-777.	14.6	58
31	Metalâ€"Insulatorâ€"Semiconductor Diode Consisting of Two-Dimensional Nanomaterials. Nano Letters, 2016, 16, 1858-1862.	9.1	74
32	Selective Amplification of the Primary Exciton in a<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Mo</mml:mi><mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>Monolayer. Physical Review Letters, 2015, 115, 226801.	7.8	54
33	Efficient Excitonâ€"Plasmon Conversion in Ag Nanowire/Monolayer MoS₂ Hybrids: Direct Imaging and Quantitative Estimation of Plasmon Coupling and Propagation. Advanced Optical Materials, 2015, 3, 943-947.	7.3	48
34	MoS<inf>2</inf> monolayers for propagating plasmon emitter and detector in long range. , 2015, , .		0
35	Seeded growth of highly crystalline molybdenum disulphide monolayers at controlled locations. Nature Communications, 2015, 6, 6128.	12.8	259
36	Characterization of the structural defects in CVD-grown monolayered MoS₂using near-field photoluminescence imaging. Nanoscale, 2015, 7, 11909-11914.	5.6	92

#	Article	IF	Citations
37	Synthesis of Centimeter-Scale Monolayer Tungsten Disulfide Film on Gold Foils. ACS Nano, 2015, 9, 5510-5519.	14.6	166
38	Fano Resonance and Spectrally Modified Photoluminescence Enhancement in Monolayer MoS₂ Integrated with Plasmonic Nanoantenna Array. Nano Letters, 2015, 15, 3646-3653.	9.1	246
39	Spectroscopic Visualization of Grain Boundaries of Monolayer Molybdenum Disulfide by Stacking Bilayers. ACS Nano, 2015, 9, 11042-11048.	14.6	47
40	Semiconductorâ€“Insulatorâ€“Semiconductor Diode Consisting of Monolayer MoS₂, h-BN, and GaN Heterostructure. ACS Nano, 2015, 9, 10032-10038.	14.6	88
41	Two-dimensional membrane as elastic shell with proof on the folds revealed by three-dimensional atomic mapping. Nature Communications, 2015, 6, 8935.	12.8	59
42	Scalable Production of Highly Sensitive Nanosensors Based on Graphene Functionalized with a Designed G Protein-Coupled Receptor. Nano Letters, 2014, 14, 2709-2714.	9.1	105
43	Scalable arrays of chemical vapor sensors based on DNA-decorated graphene. Nano Research, 2014, 7, 95-103.	10.4	45
44	Frictional Behavior of Atomically Thin Sheets: Hexagonal-Shaped Graphene Islands Grown on Copper by Chemical Vapor Deposition. ACS Nano, 2014, 8, 5010-5021.	14.6	136
45	DNA-decorated graphene nanomesh for detection of chemical vapors. Applied Physics Letters, 2013, 103, 183110.	3.3	45
46	Continuous Growth of Hexagonal Graphene and Boron Nitride In-Plane Heterostructures by Atmospheric Pressure Chemical Vapor Deposition. ACS Nano, 2013, 7, 10129-10138.	14.6	170
47	Probing graphene grain boundaries with optical microscopy. Nature, 2012, 490, 235-239.	27.8	352
48	Band-gap engineering in chemically conjugated bilayer graphene:<i>Ab initio</i>calculations. Physical Review B, 2012, 85, .	3.2	29
49	Heat Dissipation of Transparent Graphene Defoggers. Advanced Functional Materials, 2012, 22, 4819-4826.	14.9	238
50	Laser Thinning for Monolayer Graphene Formation: Heat Sink and Interference Effect. ACS Nano, 2011, 5, 263-268.	14.6	94
51	Small Hysteresis Nanocarbon-Based Integrated Circuits on Flexible and Transparent Plastic Substrate. Nano Letters, 2011, 11, 1344-1350.	9.1	142
52	POLY(ETHYLENE CO-VINYL ACETATE)-ASSISTED ONE-STEP TRANSFER OF ULTRA-LARGE GRAPHENE. Nano, 2011, 06, 59-65.	1.0	35
53	Influence of Copper Morphology in Forming Nucleation Seeds for Graphene Growth. Nano Letters, 2011, 11, 4144-4148.	9.1	373
54	Graphene/Carbon Nanotube Hybridâ€Based Transparent 2D Optical Array. Advanced Materials, 2011, 23, 3809-3814.	21.0	37

#	Article	IF	Citations
55	Transferâ€Free Growth of Fewâ€Layer Graphene by Selfâ€Assembled Monolayers. Advanced Materials, 2011, 23, 4392-4397.	21.0	79
56	Optical Arrays: Graphene/Carbon Nanotube Hybrid-Based Transparent 2D Optical Array (Adv. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	21.0	25
57	Low-temperature graphene growth using epochal catalyst of PdCo alloy. Applied Physics Letters, 2011, 99, .	3.3	9
58	UV-LIGHT-ASSISTED OXIDATIVE sp3 HYBRIDIZATION OF GRAPHENE. Nano, 2011, 06, 409-418.	1.0	36
59	CRITERIA FOR PRODUCING YARNS FROM VERTICALLY ALIGNED CARBON NANOTUBES. Nano, 2010, 05, 31-38.	1.0	14
60	Graphene/Substrate Charge Transfer Characterized by Inverse Photoelectron Spectroscopy. Journal of Physical Chemistry C, 2010, 114, 21618-21624.	3.1	61
61	Synthesis of Edge-Closed Graphene Ribbons with Enhanced Conductivity. ACS Nano, 2010, 4, 5480-5486.	14.6	41
62	Layer-by-Layer Doping of Few-Layer Graphene Film. ACS Nano, 2010, 4, 4595-4600.	14.6	293
63	Control of Electronic Structure of Graphene by Various Dopants and Their Effects on a Nanogenerator. Journal of the American Chemical Society, 2010, 132, 15603-15609.	13.7	247
64	LARGE-AREA GRAPHENE-BASED FLEXIBLE TRANSPARENT CONDUCTING FILMS. Nano, 2009, 04, 83-90.	1.0	50
65	Synthesis of large-area graphene layers on nickel film by chemical vapor deposition: wrinkle formation. Proceedings of SPIE, 2009, , .	0.8	4
66	Synthesis of Largeâ€Area Graphene Layers on Polyâ€Nickel Substrate by Chemical Vapor Deposition: Wrinkle Formation. Advanced Materials, 2009, 21, 2328-2333.	21.0	814
67	Contact resistance between metal and carbon nanotube interconnects: Effect of work function and wettability. Applied Physics Letters, 2009, 95, .	3.3	184
68	Efficient Synthesis of Individual Single-Walled Carbon Nanotube by Water-Based Catalyst with Poly(vinylpyrrolidone). Journal of Nanoscience and Nanotechnology, 2008, 8, 329-334.	0.9	6
69	Schottky barrier engineering in carbon nanotube with various metal electrodes. , 2007, , .		3