Ki Kang Kim

List of Publications by Year
in descending order

106 papers	14,403 citations	53794 45 h-index	30922 102 g-index
108 all docs	108 docs citations	108 times ranked	20051 citing authors

#	Article	IF	Citations
1	Drift-dominant exciton funneling and trion conversion in 2D semiconductors on the nanogap. Science Advances, 2022, 8, eabm5236.	10.3	21
2	Identifying the Origin of Defect-Induced Raman Mode in WS₂ Monolayers via Density Functional Perturbation Theory. Journal of Physical Chemistry C, 2022, 126, 4182-4187.	3.1	4
3	Large-scale synthesis of graphene and other 2D materials towards industrialization. Nature Communications, 2022, 13, 1484.	12.8	123
4	Hydrogen evolution reaction catalyst with high catalytic activity by interplay between organic molecules and transition metal dichalcogenide monolayers. Materials Today Energy, 2022, 25, 100976.	4.7	4
5	Energetic Sulfide Vaporâ€Processed Colloidal InAs Quantum Dot Solids for Efficient Charge Transport and Photoconduction. Advanced Photonics Research, 2022, 3, .	3.6	4
6	Correlation of Defect-Induced Photoluminescence and Raman Scattering in Monolayer WS₂. Journal of Physical Chemistry C, 2022, 126, 7177-7183.	3.1	8
7	Atomic and structural modifications of two-dimensional transition metal dichalcogenides for various advanced applications. Chemical Science, 2022, 13, 7707-7738.	7.4	28
8	Sequential Growth of Vertical Transition-Metal Dichalcogenide Heterostructures on Rollable Aluminum Foil. ACS Nano, 2022, 16, 8851-8859.	14.6	8
9	Exciton Transfer at Heterointerfaces of MoS₂ Monolayers and Fluorescent Molecular Aggregates. Advanced Science, 2022, 9, .	11.2	5
10	Universal Transfer of 2D Materials Grown on Au Substrate Using Sulfur Intercalation. Applied Science and Convergence Technology, 2021, 30, 45-49.	0.9	1
11	Epitaxial Singleâ€Crystal Growth of Transition Metal Dichalcogenide Monolayers via the Atomic Sawtooth Au Surface. Advanced Materials, 2021, 33, e2006601.	21.0	55
12	Tipâ€Induced Nanoâ€Engineering of Strain, Bandgap, and Exciton Funneling in 2D Semiconductors. Advanced Materials, 2021, 33, e2008234.	21.0	44
13	Toward non-gas-permeable hBN film growth on smooth Fe surface. 2D Materials, 2021, 8, 034003.	4.4	5
14	Substitutional Vanadium Sulfide Nanodispersed in MoS₂ Film for Ptâ€Scalable Catalyst. Advanced Science, 2021, 8, e2003709.	11.2	19
15	Deep Learningâ€Assisted Quantification of Atomic Dopants and Defects in 2D Materials. Advanced Science, 2021, 8, e2101099.	11.2	29
16	Enhanced Electron Heat Conduction in TaS3 1D Metal Wire. Materials, 2021, 14, 4477.	2.9	2
17	Substitutional Vanadium Sulfide Nanodispersed in MoS₂ Film for Ptâ€Scalable Catalyst (Adv.) Tj ETQq1 1 0.784314 rgBT	11.2	1
18	Two-dimensional air-stable CrSe₂ nanosheets with thickness-tunable magnetism. Journal of Semiconductors, 2021, 42, 100401.	3.7	5

#	Article	IF	Citations
19	Anomalous Light-Induced Charging in MoS₂ Monolayers with Cracks. ACS Applied Electronic Materials, 2021, 3, 5265-5271.	4.3	3
20	Interface Trap Suppression and Electron Doping in Van der Waals Materials Using Cross-Linked Poly(vinylpyrrolidone). ACS Applied Materials & Interfaces, 2021, 13, 55489-55497.	8.0	1
21	Atomistic mechanisms of seeding promoter-controlled growth of molybdenum disulphide. 2D Materials, 2020, 7, 015013.	4.4	11
22	Opposite Polarity Surface Photovoltage of MoS₂ Monolayers on Au Nanodot versus Nanohole Arrays. ACS Applied Materials & Interfaces, 2020, 12, 48991-48997.	8.0	15
23	Polarization-Dependent Light Emission and Charge Creation in MoS₂ Monolayers on Plasmonic Au Nanogratings. ACS Applied Materials & Interfaces, 2020, 12, 44088-44093.	8.0	6
24	Tailoring Domain Morphology in Monolayer NbSe₂ and W_{<i>x</i>}Nb_{1â€“<i>x</i>}Se₂ Heterostructure. ACS Nano, 2020, 14, 8784-8792.	14.6	30
25	Quantitative insights into the growth mechanisms of nanopores in hexagonal boron nitride. Physical Review Materials, 2020, 4, .	2.4	8
26	Poly(methyl methacrylate)-derived graphene films on different substrates using rapid thermal process: a way to control the film properties through the substrate and polymer layer thickness. Journal of Materials Research and Technology, 2019, 8, 3752-3763.	5.8	7
27	One-Dimensional Single-Chain Nb₂Se₉as Efficient Electrocatalyst for Hydrogen Evolution Reaction. ACS Applied Energy Materials, 2019, 2, 5785-5792.	5.1	18
28	Alkali Metal-Assisted Growth of Single-Layer Molybdenum Disulfide. Journal of the Korean Physical Society, 2019, 74, 1032-1038.	0.7	8
29	Wafer-Scale van der Waals Heterostructures with Ultraclean Interfaces via the Aid of Viscoelastic Polymer. ACS Applied Materials & Interfaces, 2019, 11, 1579-1586.	8.0	17
30	Restoring the photovoltaic effect in graphene-based van der Waals heterojunctions towards self-powered high-detectivity photodetectors. Nano Energy, 2019, 57, 214-221.	16.0	65
31	Synthesis of Transition Metal Disulfides with Liquid Ammonium Sulfide as a Reliable Sulfur Precursor. Applied Science and Convergence Technology, 2019, 28, 60-65.	0.9	7
32	Charge transfer in graphene/polymer interfaces for CO2 detection. Nano Research, 2018, 11, 3529-3536.	10.4	34
33	Wafer-scale single-crystal hexagonal boron nitride film via self-collimated grain formation. Science, 2018, 362, 817-821.	12.6	336
34	Synthesis of hexagonal boron nitride heterostructures for 2D van der Waals electronics. Chemical Society Reviews, 2018, 47, 6342-6369.	38.1	114
35	Ambient-pressure CVD of graphene on low-index Ni surfaces using methane: A combined experimental and first-principles study. Physical Review Materials, 2018, 2, .	2.4	12
36	Photocatalytic improvement of Mn-adsorbed g-C3N4. Applied Catalysis B: Environmental, 2017, 206, 271-281.	20.2	118

#	Article	IF	Citations
37	A Novel and Facile Route to Synthesize Atomicâ€Layered MoS₂ Film for Largeâ€Area Electronics. Small, 2017, 13, 1701306.	10.0	53
38	Synthesis of Large-Area Tungsten Disulfide Films on Pre-Reduced Tungsten Suboxide Substrates. ACS Applied Materials & Interfaces, 2017, 9, 43021-43029.	8.0	29
39	Water-Assisted Synthesis of Molybdenum Disulfide Film with Single Organic Liquid Precursor. Scientific Reports, 2017, 7, 1983.	3.3	27
40	A systematic study of the synthesis of monolayer tungsten diselenide films on gold foil. Current Applied Physics, 2016, 16, 1216-1222.	2.4	16
41	Thickness-controlled multilayer hexagonal boron nitride film prepared by plasma-enhanced chemical vapor deposition. Current Applied Physics, 2016, 16, 1229-1235.	2.4	18
42	Large-Scale Graphene on Hexagonal-BN Hall Elements: Prediction of Sensor Performance without Magnetic Field. ACS Nano, 2016, 10, 8803-8811.	14.6	20
43	First-principles calculation the electronic structure and the optical properties of Mn-decorated g-C3N4 for photocatalytic applications. Journal of the Korean Physical Society, 2016, 69, 1445-1449.	0.7	15
44	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
45	Biexciton Emission from Edges and Grain Boundaries of Triangular WS₂ Monolayers. ACS Nano, 2016, 10, 2399-2405.	14.6	220
46	Metalâ€“Insulatorâ€“Semiconductor Diode Consisting of Two-Dimensional Nanomaterials. Nano Letters, 2016, 16, 1858-1862.	9.1	74
47	Chemically Conjugated Carbon Nanotubes and Graphene for Carrier Modulation. Accounts of Chemical Research, 2016, 49, 390-399.	15.6	30
48	Phase-Engineered Synthesis of Centimeter-Scale 1Tâ€²- and 2H-Molybdenum Ditelluride Thin Films. ACS Nano, 2015, 9, 6548-6554.	14.6	225
49	Effective characterization of polymer residues on two-dimensional materials by Raman spectroscopy. Nanotechnology, 2015, 26, 485701.	2.6	7
50	Seed Growth of Tungsten Diselenide Nanotubes from Tungsten Oxides. Small, 2015, 11, 2192-2199.	10.0	20
51	Flexible plane heater: Graphite and carbon nanotube hybrid nanocomposite. Synthetic Metals, 2015, 203, 127-134.	3.9	35
52	Synthesis of Centimeter-Scale Monolayer Tungsten Disulfide Film on Gold Foils. ACS Nano, 2015, 9, 5510-5519.	14.6	166
53	Impact of graphene and single-layer BN insertion on bipolar resistive switching characteristics in tungsten oxide resistive memory. Thin Solid Films, 2015, 589, 188-193.	1.8	21
54	Synthesis of large-area multilayer hexagonal boron nitride for high material performance. Nature Communications, 2015, 6, 8662.	12.8	403

#	Article	IF	Citations
55	Semiconductorâ€“Insulatorâ€“Semiconductor Diode Consisting of Monolayer MoS₂, h-BN, and GaN Heterostructure. ACS Nano, 2015, 9, 10032-10038.	14.6	88
56	Toward Charge Neutralization of CVD Graphene. Applied Science and Convergence Technology, 2015, 24, 268-272.	0.9	2
57	Surface-Induced Hybridization between Graphene and Titanium. ACS Nano, 2014, 8, 7704-7713.	14.6	38
58	Large-Area Monolayer Hexagonal Boron Nitride on Pt Foil. ACS Nano, 2014, 8, 8520-8528.	14.6	200
59	A new horizon for hexagonal boron nitride film. Journal of the Korean Physical Society, 2014, 64, 1605-1616.	0.7	28
60	The effect of copper pre-cleaning on graphene synthesis. Nanotechnology, 2013, 24, 365602.	2.6	122
61	Synthesis of Patched or Stacked Graphene and hBN Flakes: A Route to Hybrid Structure Discovery. Nano Letters, 2013, 13, 933-941.	9.1	179
62	Synthesis and Characterization of Hexagonal Boron Nitride Film as a Dielectric Layer for Graphene Devices. ACS Nano, 2012, 6, 8583-8590.	14.6	472
63	Understanding and controlling the substrate effect on graphene electron-transfer chemistry via reactivity imprint lithography. Nature Chemistry, 2012, 4, 724-732.	13.6	463
64	Spectroscopic Determination of the Electrochemical Potentials of n-Type Doped Carbon Nanotubes. Journal of Physical Chemistry C, 2012, 116, 5444-5449.	3.1	17
65	Synthesis of Monolayer Hexagonal Boron Nitride on Cu Foil Using Chemical Vapor Deposition. Nano Letters, 2012, 12, 161-166.	9.1	1,057
66	van der Waals Epitaxy of MoS₂ Layers Using Graphene As Growth Templates. Nano Letters, 2012, 12, 2784-2791.	9.1	888
67	Delay Analysis of Graphene Field-Effect Transistors. IEEE Electron Device Letters, 2012, 33, 324-326.	3.9	26
68	Role of Anions in the AuCl₃-Doping of Carbon Nanotubes. ACS Nano, 2011, 5, 1236-1242.	14.6	149
69	Graphene electronics for RF applications. , 2011, , .		2
70	Nanotransistors using graphene interfaced with advanced dielectrics for high speed communication. , 2011, , .		0
71	Impact of Graphene Interface Quality on Contact Resistance and RF Device Performance. IEEE Electron Device Letters, 2011, 32, 1008-1010.	3.9	126
72	Carbon Nanotube Doping Mechanism in a Salt Solution and Hygroscopic Effect: Density Functional Theory. ACS Nano, 2010, 4, 5430-5436.	14.6	32

#	Article	IF	Citations
73	Doped graphene electrodes for organic solar cells. Nanotechnology, 2010, 21, 505204.	2.6	241
74	Synthesis of Few-Layer Hexagonal Boron Nitride Thin Film by Chemical Vapor Deposition. Nano Letters, 2010, 10, 4134-4139.	9.1	1,058
75	Transparent Organic P-Dopant in Carbon Nanotubes: Bis(trifluoromethanesulfonyl)imide. ACS Nano, 2010, 4, 6998-7004.	14.6	56
76	Work Function Engineering of Graphene Electrode<i>via</i>Chemical Doping. ACS Nano, 2010, 4, 2689-2694.	14.6	501
77	Enhancing the conductivity of transparent graphene films via doping. Nanotechnology, 2010, 21, 285205.	2.6	321
78	Doping strategy of carbon nanotubes with redox chemistry. New Journal of Chemistry, 2010, 34, 2183.	2.8	63
79	Fluidic Properties of Carbon Nanotube Inks and Field Emission Properties of Ink Jet-Printed Emitters. Japanese Journal of Applied Physics, 2009, 48, 111601.	1.5	9
80	Restorable Type Conversion of Carbon Nanotube Transistor Using Pyrolytically Controlled Antioxidizing Photosynthesis Coenzyme. Advanced Functional Materials, 2009, 19, 2553-2559.	14.9	59
81	Efficient Reduction of Graphite Oxide by Sodium Borohydride and Its Effect on Electrical Conductance. Advanced Functional Materials, 2009, 19, 1987-1992.	14.9	2,059
82	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
83	Control of pâ€doping on singleâ€walled carbon nanotubes with nitronium hexafluoroantimonate in liquid phase. Physica Status Solidi (B): Basic Research, 2009, 246, 2419-2422.	1.5	8
84	Front Cover (Phys. Status Solidi B 11â€12/2009). Physica Status Solidi (B): Basic Research, 2009, 246, .	1.5	0
85	Controlling work function of reduced graphite oxide with Au-ion concentration. Chemical Physics Letters, 2009, 475, 91-95.	2.6	104
86	Strategy for High Concentration Nanodispersion of Single-Walled Carbon Nanotubes with Diameter Selectivity. Journal of Physical Chemistry C, 2009, 113, 10044-10051.	3.1	17
87	Reduction-Controlled Viologen in Bisolvent as an Environmentally Stable n-Type Dopant for Carbon Nanotubes. Journal of the American Chemical Society, 2009, 131, 327-331.	13.7	196
88	Absorption spectroscopy of surfactant-dispersed carbon nanotube film: Modulation of electronic structures. Chemical Physics Letters, 2008, 455, 275-278.	2.6	124
89	Doping and de-doping of carbon nanotube transparent conducting films by dispersant and chemical treatment. Journal of Materials Chemistry, 2008, 18, 1261.	6.7	132
90	Exfoliation of Single-Walled Carbon Nanotubes Induced by the Structural Effect of Perylene Derivatives and Their Optoelectronic Properties. Journal of Physical Chemistry C, 2008, 112, 15267-15273.	3.1	35

#	Article	IF	Citations
91	Selective Oxidation on Metallic Carbon Nanotubes by Halogen Oxoanions. Journal of the American Chemical Society, 2008, 130, 2610-2616.	13.7	40
92	Fermi Level Engineering of Single-Walled Carbon Nanotubes by AuCl₃ Doping. Journal of the American Chemical Society, 2008, 130, 12757-12761.	13.7	238
93	Tailoring Electronic Structures of Carbon Nanotubes by Solvent with Electron-Donating and -Withdrawing Groups. Journal of the American Chemical Society, 2008, 130, 2062-2066.	13.7	178
94	PURITY MEASUREMENT OF SINGLE-WALLED CARBON NANOTUBES BY UV-VIS-NIR ABSORPTION SPECTROSCOPY AND THERMOGRAVIMETRIC ANALYSIS. Nano, 2008, 03, 101-108.	1.0	28
95	Bias-induced doping engineering with ionic adsorbates on single-walled carbon nanotube thin film transistors. New Journal of Physics, 2008, 10, 113013.	2.9	3
96	Effect of Carbon Nanotube Types in Fabricating Flexible Transparent Conducting Films. Journal of the Korean Physical Society, 2008, 53, 979-985.	0.7	28
97	Optical absorption spectroscopy for determining carbon nanotube concentration in solution. Synthetic Metals, 2007, 157, 570-574.	3.9	120
98	Dispersion Stability of Single-Walled Carbon Nanotubes Using Nafion in Bisolvent. Journal of Physical Chemistry C, 2007, 111, 2477-2483.	3.1	66
99	Dependence of Raman spectra<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mi>G</mml:mi><mml:mo>â€²</mml:mo></mml:msup></mml:math>band intensity on metallicity of single-wall carbon nanotubes. Physical Review B, 2007, 76, .	3.2	67
100	Enhancement of Conductivity by Diameter Control of Polyimide-Based Electrospun Carbon Nanofibers. Journal of Physical Chemistry B, 2007, 111, 11350-11353.	2.6	81
101	Effect of Acid Treatment on Carbon Nanotube-Based Flexible Transparent Conducting Films. Journal of the American Chemical Society, 2007, 129, 7758-7759.	13.7	874
102	Dual quartz crystal microbalance for hydrogen storage in carbon nanotubes. International Journal of Hydrogen Energy, 2007, 32, 3442-3447.	7.1	20
103	Anisotropic electrical conductivity of MWCNT/PAN nanofiber paper. Chemical Physics Letters, 2005, 413, 188-193.	2.6	202
104	Characterization of thin multi-walled carbon nanotubes synthesized by catalytic chemical vapor deposition. Chemical Physics Letters, 2005, 413, 135-141.	2.6	63
105	Nanodispersion of Single-Walled Carbon Nanotubes Using Dichloroethane. Journal of Nanoscience and Nanotechnology, 2005, 5, 1055-1059.	0.9	41
106	High-Yield Catalytic Synthesis of Thin Multiwalled Carbon Nanotubes. Journal of Physical Chemistry B, 2004, 108, 17695-17698.	2.6	71