

Ki Kang Kim

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

98
papers

12,198
citations

43
h-index

108
g-index

108
ext. papers

13,413
ext. citations

9.7
avg, IF

5.93
L-index

#	Paper	IF	Citations
98	Drift-dominant exciton funneling and trion conversion in 2D semiconductors on the nanogap.. <i>Science Advances</i> , 2022 , 8, eabm5236	14.3	1
97	Identifying the Origin of Defect-Induced Raman Mode in WS2 Monolayers via Density Functional Perturbation Theory. <i>Journal of Physical Chemistry C</i> , 2022 , 126, 4182-4187	3.8	1
96	Large-scale synthesis of graphene and other 2D materials towards industrialization.. <i>Nature Communications</i> , 2022 , 13, 1484	17.4	8
95	Hydrogen evolution reaction catalyst with high catalytic activity by interplay between organic molecules and transition metal dichalcogenide monolayers. <i>Materials Today Energy</i> , 2022 , 25, 100976	7	2
94	Energetic Sulfide Vapor-Processed Colloidal InAs Quantum Dot Solids for Efficient Charge Transport and Photoconduction. <i>Advanced Photonics Research</i> , 2022 , 3, 2100243	1.9	0
93	Interface Trap Suppression and Electron Doping in Van der Waals Materials Using Cross-Linked Poly(vinylpyrrolidone). <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 55489-55497	9.5	0
92	Two-dimensional air-stable CrSe2 nanosheets with thickness-tunable magnetism. <i>Journal of Semiconductors</i> , 2021 , 42, 100401	2.3	1
91	Universal Transfer of 2D Materials Grown on Au Substrate Using Sulfur Intercalation. <i>Applied Science and Convergence Technology</i> , 2021 , 30, 45-49	0.8	
90	Epitaxial Single-Crystal Growth of Transition Metal Dichalcogenide Monolayers via the Atomic Sawtooth Au Surface. <i>Advanced Materials</i> , 2021 , 33, e2006601	24	21
89	Tip-Induced Nano-Engineering of Strain, Bandgap, and Exciton Funneling in 2D Semiconductors. <i>Advanced Materials</i> , 2021 , 33, e2008234	24	18
88	Toward non-gas-permeable hBN film growth on smooth Fe surface. <i>2D Materials</i> , 2021 , 8, 034003	5.9	3
87	Substitutional Vanadium Sulfide Nanodispersed in MoS Film for Pt-Scalable Catalyst. <i>Advanced Science</i> , 2021 , 8, e2003709	13.6	6
86	Deep Learning-Assisted Quantification of Atomic Dopants and Defects in 2D Materials. <i>Advanced Science</i> , 2021 , 8, e2101099	13.6	6
85	Substitutional Vanadium Sulfide Nanodispersed in MoS2 Film for Pt-Scalable Catalyst (Adv. Sci. 16/2021). <i>Advanced Science</i> , 2021 , 8, 2170101	13.6	78
84	Tailoring Domain Morphology in Monolayer NbSe and WNbSe Heterostructure. <i>ACS Nano</i> , 2020 , 14, 8784-8792	16.7	13
83	Quantitative insights into the growth mechanisms of nanopores in hexagonal boron nitride. <i>Physical Review Materials</i> , 2020 , 4,	3.2	5
82	Opposite Polarity Surface Photovoltage of MoS Monolayers on Au Nanodot versus Nanohole Arrays. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 48991-48997	9.5	4

81	Polarization-Dependent Light Emission and Charge Creation in MoS Monolayers on Plasmonic Au Nanogratings. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 44088-44093	9.5	2
80	Atomistic mechanisms of seeding promoter-controlled growth of molybdenum disulphide. <i>2D Materials</i> , 2020 , 7, 015013	5.9	6
79	Alkali Metal-Assisted Growth of Single-Layer Molybdenum Disulfide. <i>Journal of the Korean Physical Society</i> , 2019 , 74, 1032-1038	0.6	3
78	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. <i>Journal of Materials Research and Technology</i> , 2019 , 8, 3752-3763	5.5	6
77	One-Dimensional Single-Chain Nb ₂ Se ₉ as Efficient Electrocatalyst for Hydrogen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2019 , 2, 5785-5792	6.1	12
76	Synthesis of Transition Metal Disulfides with Liquid Ammonium Sulfide as a Reliable Sulfur Precursor. <i>Applied Science and Convergence Technology</i> , 2019 , 28, 60-65	0.8	4
75	Wafer-Scale van der Waals Heterostructures with Ultraclean Interfaces via the Aid of Viscoelastic Polymer. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 1579-1586	9.5	9
74	Restoring the photovoltaic effect in graphene-based van der Waals heterojunctions towards self-powered high-detectivity photodetectors. <i>Nano Energy</i> , 2019 , 57, 214-221	17.1	46
73	Charge transfer in graphene/polymer interfaces for CO ₂ detection. <i>Nano Research</i> , 2018 , 11, 3529-3536	10	22
72	Synthesis of hexagonal boron nitride heterostructures for 2D van der Waals electronics. <i>Chemical Society Reviews</i> , 2018 , 47, 6342-6369	58.5	80
71	Ambient-pressure CVD of graphene on low-index Ni surfaces using methane: A combined experimental and first-principles study. <i>Physical Review Materials</i> , 2018 , 2,	3.2	10
70	Wafer-scale single-crystal hexagonal boron nitride film via self-collimated grain formation. <i>Science</i> , 2018 , 362, 817-821	33.3	233
69	Photocatalytic improvement of Mn-adsorbed g-C ₃ N ₄ . <i>Applied Catalysis B: Environmental</i> , 2017 , 206, 271-288	28.8	68
68	A Novel and Facile Route to Synthesize Atomic-Layered MoS Film for Large-Area Electronics. <i>Small</i> , 2017 , 13, 1701306	11	39
67	Synthesis of Large-Area Tungsten Disulfide Films on Pre-Reduced Tungsten Suboxide Substrates. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 43021-43029	9.5	21
66	Water-Assisted Synthesis of Molybdenum Disulfide Film with Single Organic Liquid Precursor. <i>Scientific Reports</i> , 2017 , 7, 1983	4.9	20
65	First-principles calculation the electronic structure and the optical properties of Mn-decorated g-C ₃ N ₄ for photocatalytic applications. <i>Journal of the Korean Physical Society</i> , 2016 , 69, 1445-1449	0.6	12
64	Modulating Electronic Properties of Monolayer MoS via Electron-Withdrawing Functional Groups of Graphene Oxide. <i>ACS Nano</i> , 2016 , 10, 10446-10453	16.7	30

63	Biexciton Emission from Edges and Grain Boundaries of Triangular WS ₂ Monolayers. <i>ACS Nano</i> , 2016 , 10, 2399-405	16.7	175
62	Metal-Insulator-Semiconductor Diode Consisting of Two-Dimensional Nanomaterials. <i>Nano Letters</i> , 2016 , 16, 1858-62	11.5	56
61	Chemically Conjugated Carbon Nanotubes and Graphene for Carrier Modulation. <i>Accounts of Chemical Research</i> , 2016 , 49, 390-9	24.3	27
60	A systematic study of the synthesis of monolayer tungsten diselenide films on gold foil. <i>Current Applied Physics</i> , 2016 , 16, 1216-1222	2.6	12
59	Thickness-controlled multilayer hexagonal boron nitride film prepared by plasma-enhanced chemical vapor deposition. <i>Current Applied Physics</i> , 2016 , 16, 1229-1235	2.6	12
58	Large-Scale Graphene on Hexagonal-BN Hall Elements: Prediction of Sensor Performance without Magnetic Field. <i>ACS Nano</i> , 2016 , 10, 8803-11	16.7	18
57	Seed growth of tungsten diselenide nanotubes from tungsten oxides. <i>Small</i> , 2015 , 11, 2192-9	11	13
56	Flexible plane heater: Graphite and carbon nanotube hybrid nanocomposite. <i>Synthetic Metals</i> , 2015 , 203, 127-134	3.6	29
55	Synthesis of centimeter-scale monolayer tungsten disulfide film on gold foils. <i>ACS Nano</i> , 2015 , 9, 5510-9	16.7	143
54	Impact of graphene and single-layer BN insertion on bipolar resistive switching characteristics in tungsten oxide resistive memory. <i>Thin Solid Films</i> , 2015 , 589, 188-193	2.2	18
53	Synthesis of large-area multilayer hexagonal boron nitride for high material performance. <i>Nature Communications</i> , 2015 , 6, 8662	17.4	298
52	Semiconductor-Insulator-Semiconductor Diode Consisting of Monolayer MoS ₂ , h-BN, and GaN Heterostructure. <i>ACS Nano</i> , 2015 , 9, 10032-8	16.7	70
51	Phase-Engineered Synthesis of Centimeter-Scale 1T' and 2H-Molybdenum Ditelluride Thin Films. <i>ACS Nano</i> , 2015 , 9, 6548-54	16.7	180
50	Effective characterization of polymer residues on two-dimensional materials by Raman spectroscopy. <i>Nanotechnology</i> , 2015 , 26, 485701	3.4	5
49	Toward Charge Neutralization of CVD Graphene. <i>Applied Science and Convergence Technology</i> , 2015 , 24, 268-272	0.8	2
48	Surface-induced hybridization between graphene and titanium. <i>ACS Nano</i> , 2014 , 8, 7704-13	16.7	33
47	Large-area monolayer hexagonal boron nitride on Pt foil. <i>ACS Nano</i> , 2014 , 8, 8520-8	16.7	160
46	A new horizon for hexagonal boron nitride film. <i>Journal of the Korean Physical Society</i> , 2014 , 64, 1605-1608	16.7	19

45	The effect of copper pre-cleaning on graphene synthesis. <i>Nanotechnology</i> , 2013 , 24, 365602	3.4	102
44	Synthesis of patched or stacked graphene and hBN flakes: a route to hybrid structure discovery. <i>Nano Letters</i> , 2013 , 13, 933-41	11.5	162
43	Delay Analysis of Graphene Field-Effect Transistors. <i>IEEE Electron Device Letters</i> , 2012 , 33, 324-326	4.4	23
42	Synthesis and characterization of hexagonal boron nitride film as a dielectric layer for graphene devices. <i>ACS Nano</i> , 2012 , 6, 8583-90	16.7	388
41	Understanding and controlling the substrate effect on graphene electron-transfer chemistry via reactivity imprint lithography. <i>Nature Chemistry</i> , 2012 , 4, 724-32	17.6	407
40	Spectroscopic Determination of the Electrochemical Potentials of n-Type Doped Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 5444-5449	3.8	13
39	Synthesis of monolayer hexagonal boron nitride on Cu foil using chemical vapor deposition. <i>Nano Letters</i> , 2012 , 12, 161-6	11.5	902
38	van der Waals epitaxy of MoS ₂ layers using graphene as growth templates. <i>Nano Letters</i> , 2012 , 12, 2784-9	11.5	788
37	Impact of Graphene Interface Quality on Contact Resistance and RF Device Performance. <i>IEEE Electron Device Letters</i> , 2011 , 32, 1008-1010	4.4	111
36	Role of anions in the AuCl ₃ -doping of carbon nanotubes. <i>ACS Nano</i> , 2011 , 5, 1236-42	16.7	126
35	Doped graphene electrodes for organic solar cells. <i>Nanotechnology</i> , 2010 , 21, 505204	3.4	216
34	Synthesis of few-layer hexagonal boron nitride thin film by chemical vapor deposition. <i>Nano Letters</i> , 2010 , 10, 4134-9	11.5	900
33	Transparent organic p-dopant in carbon nanotubes: bis(trifluoromethanesulfonyl)imide. <i>ACS Nano</i> , 2010 , 4, 6998-7004	16.7	51
32	Work function engineering of graphene electrode via chemical doping. <i>ACS Nano</i> , 2010 , 4, 2689-94	16.7	444
31	Enhancing the conductivity of transparent graphene films via doping. <i>Nanotechnology</i> , 2010 , 21, 285205	3.4	301
30	Doping strategy of carbon nanotubes with redox chemistry. <i>New Journal of Chemistry</i> , 2010 , 34, 2183	3.6	51
29	Carbon nanotube doping mechanism in a salt solution and hygroscopic effect: density functional theory. <i>ACS Nano</i> , 2010 , 4, 5430-6	16.7	27
28	Fluidic Properties of Carbon Nanotube Inks and Field Emission Properties of Ink Jet-Printed Emitters. <i>Japanese Journal of Applied Physics</i> , 2009 , 48, 111601	1.4	5

27	Restorable Type Conversion of Carbon Nanotube Transistor Using Pyrolytically Controlled Antioxidizing Photosynthesis Coenzyme. <i>Advanced Functional Materials</i> , 2009 , 19, 2553-2559	15.6	52
26	Efficient Reduction of Graphite Oxide by Sodium Borohydride and Its Effect on Electrical Conductance. <i>Advanced Functional Materials</i> , 2009 , 19, 1987-1992	15.6	1831
25	Synthesis of Large-Area Graphene Layers on Poly-Nickel Substrate by Chemical Vapor Deposition: Wrinkle Formation. <i>Advanced Materials</i> , 2009 , 21, 2328-2333	24	766
24	Control of p-doping on single-walled carbon nanotubes with nitronium hexafluoroantimonate in liquid phase. <i>Physica Status Solidi (B): Basic Research</i> , 2009 , 246, 2419-2422	1.3	7
23	Controlling work function of reduced graphite oxide with Au-ion concentration. <i>Chemical Physics Letters</i> , 2009 , 475, 91-95	2.5	96
22	Strategy for High Concentration Nanodispersion of Single-Walled Carbon Nanotubes with Diameter Selectivity. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 10044-10051	3.8	15
21	Reduction-controlled viologen in bisolvent as an environmentally stable n-type dopant for carbon nanotubes. <i>Journal of the American Chemical Society</i> , 2009 , 131, 327-31	16.4	162
20	Exfoliation of Single-Walled Carbon Nanotubes Induced by the Structural Effect of Perylene Derivatives and Their Optoelectronic Properties. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 15267-15273 ^{3,8}	29	
19	Selective oxidation on metallic carbon nanotubes by halogen oxoanions. <i>Journal of the American Chemical Society</i> , 2008 , 130, 2610-6	16.4	37
18	Fermi level engineering of single-walled carbon nanotubes by AuCl ₃ doping. <i>Journal of the American Chemical Society</i> , 2008 , 130, 12757-61	16.4	215
17	Tailoring electronic structures of carbon nanotubes by solvent with electron-donating and -withdrawing groups. <i>Journal of the American Chemical Society</i> , 2008 , 130, 2062-6	16.4	153
16	PURITY MEASUREMENT OF SINGLE-WALLED CARBON NANOTUBES BY UV-VIS-NIR ABSORPTION SPECTROSCOPY AND THERMOGRAVIMETRIC ANALYSIS. <i>Nano</i> , 2008 , 03, 101-108	1.1	28
15	Bias-induced doping engineering with ionic adsorbates on single-walled carbon nanotube thin film transistors. <i>New Journal of Physics</i> , 2008 , 10, 113013	2.9	3
14	Absorption spectroscopy of surfactant-dispersed carbon nanotube film: Modulation of electronic structures. <i>Chemical Physics Letters</i> , 2008 , 455, 275-278	2.5	116
13	Doping and de-doping of carbon nanotube transparent conducting films by dispersant and chemical treatment. <i>Journal of Materials Chemistry</i> , 2008 , 18, 1261		119
12	Effect of Carbon Nanotube Types in Fabricating Flexible Transparent Conducting Films. <i>Journal of the Korean Physical Society</i> , 2008 , 53, 979-985	0.6	24
11	Enhancement of conductivity by diameter control of polyimide-based electrospun carbon nanofibers. <i>Journal of Physical Chemistry B</i> , 2007 , 111, 11350-3	3.4	76
10	Effect of acid treatment on carbon nanotube-based flexible transparent conducting films. <i>Journal of the American Chemical Society</i> , 2007 , 129, 7758-9	16.4	804

9	Dual quartz crystal microbalance for hydrogen storage in carbon nanotubes. <i>International Journal of Hydrogen Energy</i> , 2007 , 32, 3442-3447	6.7	18
8	Optical absorption spectroscopy for determining carbon nanotube concentration in solution. <i>Synthetic Metals</i> , 2007 , 157, 570-574	3.6	107
7	Dispersion Stability of Single-Walled Carbon Nanotubes Using Nafion in Bisolvent. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 2477-2483	3.8	58
6	Dependence of Raman spectra G? band intensity on metallicity of single-wall carbon nanotubes. <i>Physical Review B</i> , 2007 , 76,	3.3	62
5	Anisotropic electrical conductivity of MWCNT/PAN nanofiber paper. <i>Chemical Physics Letters</i> , 2005 , 413, 188-193	2.5	184
4	Characterization of thin multi-walled carbon nanotubes synthesized by catalytic chemical vapor deposition. <i>Chemical Physics Letters</i> , 2005 , 413, 135-141	2.5	55
3	Nanodispersion of single-walled carbon nanotubes using dichloroethane. <i>Journal of Nanoscience and Nanotechnology</i> , 2005 , 5, 1055-9	1.3	40
2	High-Yield Catalytic Synthesis of Thin Multiwalled Carbon Nanotubes. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 17695-17698	3.4	62
1	Atomic and structural modifications of two-dimensional transition metal dichalcogenides for various advanced applications. <i>Chemical Science</i> ,	9.4	1