

# Kwanpyo 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.

88

papers

6,180

citations

30

h-index

78

g-index

98

ext. papers

7,034

ext. citations

11.5

avg, IF

5.62

L-index

#	Paper	IF	Citations
88	Commensurate Assembly of C on Black Phosphorus for Mixed-Dimensional van der Waals Transistors.. <i>Small</i> , <b>2022</b> , e2105916	11	0
87	Damage-Free Charge Transfer Doping of 2D Transition Metal Dichalcogenide Channels by van der Waals Stamping of MoO and LiF.. <i>Small Methods</i> , <b>2022</b> , e2101073	12.8	0
86	Tuning of Thermoelectric Properties of MoSe Thin Films Under Helium Ion Irradiation.. <i>Nanoscale Research Letters</i> , <b>2022</b> , 17, 26	5	0
85	Quaternary NAND Logic and Complementary Ternary Inverter with p-MoTe <sub>2</sub> /n-MoS <sub>2</sub> Heterostack Channel Transistors. <i>Advanced Functional Materials</i> , <b>2022</b> , 32, 2108737	15.6	2
84	Selective Growth and Robust Valley Polarization of Bilayer 3-MoS. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 57588-57596	9.5	2
83	Unidirectional Alignment of AgCN Microwires on Distorted Transition Metal Dichalcogenide Crystals. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 8727-8735	9.5	0
82	2D MoS <sub>2</sub> Charge Injection Memory Transistors Utilizing Hetero-Stack SiO <sub>2</sub> /HfO <sub>2</sub> Dielectrics and Oxide Interface Traps. <i>Advanced Electronic Materials</i> , <b>2021</b> , 7, 2100074	6.4	0
81	High Performance $\Gamma$ -Ga <sub>2</sub> O <sub>3</sub> Schottky Barrier Transistors with Large Work Function TMD Gate of NbS <sub>2</sub> and TaS <sub>2</sub> . <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2010303	15.6	7
80	Dramatic Reduction of Contact Resistance via Ultrathin LiF in Two-Dimensional MoS Field Effect Transistors. <i>Nano Letters</i> , <b>2021</b> , 21, 3503-3510	11.5	3
79	Versatile Solution-Processed Organic-Inorganic Hybrid Superlattices for Ultraflexible and Transparent High-Performance Optoelectronic Devices. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2103285	15.6	8
78	Single-Crystalline Metallic Films Induced by van der Waals Epitaxy on Black Phosphorus. <i>Chemistry of Materials</i> , <b>2021</b> , 33, 3593-3601	9.6	3
77	Electronically Weak Coupled Bilayer MoS at Various Twist Angles via Folding. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 22819-22827	9.5	2
76	$\Gamma$ -GeSe: A New Hexagonal Polymorph from Group IV-VI Monochalcogenides. <i>Nano Letters</i> , <b>2021</b> , 21, 4305-4313	13.3	11
75	Evolution of defect formation during atomically precise desulfurization of monolayer MoS <sub>2</sub> . <i>Communications Materials</i> , <b>2021</b> , 2,	6	3
74	Tailoring Single- and Double-Sided Fluorination of Bilayer Graphene via Substrate Interactions. <i>Nano Letters</i> , <b>2021</b> , 21, 891-898	11.5	4
73	Hydrogenated Graphene Improves Neuronal Network Maturation and Excitatory Transmission. <i>Advanced Biology</i> , <b>2021</b> , 5, e2000177		4
72	Reversible disorder-order transitions in atomic crystal nucleation. <i>Science</i> , <b>2021</b> , 371, 498-503	33.3	44

71	Unidirectional Assembly on Distorted Two-Dimensional Crystal Substrates. <i>Microscopy and Microanalysis</i> , <b>2021</b> , 27, 892-893	0.5	
70	Ammonium Salts: New Synergistic Additive for Chemical Vapor Deposition Growth of MoS <sub>2</sub> . <i>Journal of Physical Chemistry Letters</i> , <b>2021</b> , 12, 12384-12390	6.4	3
69	TEM Imaging of Edges and Point Defects in Monolayer Phosphorene. <i>Microscopy and Microanalysis</i> , <b>2020</b> , 26, 2348-2350	0.5	0
68	Nanoscale Molecular Building Blocks for Layer-by-Layer Assembly. <i>Advanced Materials Interfaces</i> , <b>2020</b> , 7, 2000522	4.6	3
67	Morphology-Conserving Non-Kirkendall Anion Exchange of Metal Oxide Nanocrystals. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 9130-9134	16.4	17
66	Ultrafast 27 GHz cutoff frequency in vertical WSe Schottky diodes with extremely low contact resistance. <i>Nature Communications</i> , <b>2020</b> , 11, 1574	17.4	23
65	Photo-response in 2D metal chalcogenide-ferroelectric oxide heterostructure controlled by spontaneous polarization. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 3724-3729	7.1	6
64	Universal Oriented van der Waals Epitaxy of 1D Cyanide Chains on Hexagonal 2D Crystals. <i>Advanced Science</i> , <b>2020</b> , 7, 1900757	13.6	6
63	Mechanical removal of surface residues on graphene for TEM characterizations. <i>Applied Microscopy</i> , <b>2020</b> , 50, 28	1.1	4
62	Fabrication and Imaging of Monolayer Phosphorene with Preferred Edge Configurations via Graphene-Assisted Layer-by-Layer Thinning. <i>Nano Letters</i> , <b>2020</b> , 20, 559-566	11.5	11
61	Optical phonons of SnSeS layered semiconductor alloys. <i>Scientific Reports</i> , <b>2020</b> , 10, 11761	4.9	8
60	Light-Induced Anisotropic Morphological Dynamics of Black Phosphorus Membranes Visualized by Dark-Field Ultrafast Electron Microscopy. <i>ACS Nano</i> , <b>2020</b> , 14, 11383-11393	16.7	9
59	Intense Dark Exciton Emission from Strongly Quantum-Confined CsPbBr <sub>3</sub> Nanocrystals. <i>Nano Letters</i> , <b>2020</b> , 20, 7321-7326	11.5	28
58	2D TMD Channel Transistors with ZnO Nanowire Gate for Extended Nonvolatile Memory Applications. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2004140	15.6	15
57	Nonvolatile and Neuromorphic Memory Devices Using Interfacial Traps in Two-Dimensional WSe <sub>2</sub> /MoTe <sub>2</sub> Stack Channel. <i>ACS Nano</i> , <b>2020</b> , 14, 12064-12071	16.7	15
56	TEM Imaging and Electron Diffraction of Vertically Stacked Graphene/h-BN with Fine Control of Twist Angle. <i>Microscopy and Microanalysis</i> , <b>2019</b> , 25, 2114-2115	0.5	
55	Direct imaging of structural disordering and heterogeneous dynamics of fullerene molecular liquid. <i>Nature Communications</i> , <b>2019</b> , 10, 4395	17.4	3
54	Ultrastiff, Strong, and Highly Thermally Conductive Crystalline Graphitic Films with Mixed Stacking Order. <i>Advanced Materials</i> , <b>2019</b> , 31, e1903039	24	27

53	Analysis of Defect Recovery in Reduced Graphene Oxide and Its Application as a Heater for Self-Healing Polymers. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 16804-16814	9.5	13
52	Controlled synthesis of Sn <sub>x</sub> Se <sub>2-x</sub> nanoplate alloys via synergetic control of reactant activity and surface defect passivation control with surfactant and co-surfactant mixture. <i>Journal of Solid State Chemistry</i> , <b>2019</b> , 278, 120887	3.3	1
51	Atomic-Resolution TEM Imaging of Phosphorene Protected by Graphene. <i>Microscopy and Microanalysis</i> , <b>2019</b> , 25, 1696-1697	0.5	
50	Nitrogen-Plasma-Treated Continuous Monolayer MoS for Improving Hydrogen Evolution Reaction. <i>ACS Omega</i> , <b>2019</b> , 4, 21509-21515	3.9	17
49	Single-step synthesis of wrinkled MoSe <sub>2</sub> thin films. <i>Current Applied Physics</i> , <b>2019</b> , 19, 273-278	2.6	5
48	One-Dimensional Assembly on Two-Dimensions: AuCN Nanowire Epitaxy on Graphene for Hybrid Phototransistors. <i>Nano Letters</i> , <b>2018</b> , 18, 6214-6221	11.5	19
47	Atomic-scale imaging of few-layer black phosphorus and its reconstructed edge. <i>Journal Physics D: Applied Physics</i> , <b>2017</b> , 50, 084003	3	27
46	Precise Identification of Graphene's Crystal Structures by Removable Nanowire Epitaxy. <i>Journal of Physical Chemistry Letters</i> , <b>2017</b> , 8, 1302-1309	6.4	7
45	Chemical Vapor-Deposited Hexagonal Boron Nitride as a Scalable Template for High-Performance Organic Field-Effect Transistors. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 2341-2347	9.6	46
44	High-performance oxygen reduction and evolution carbon catalysis: From mechanistic studies to device integration. <i>Nano Research</i> , <b>2017</b> , 10, 1163-1177	10	50
43	Strong Fermi-Level Pinning at Metal/n-Si(001) Interface Ensured by Forming an Intact Schottky Contact with a Graphene Insertion Layer. <i>Nano Letters</i> , <b>2017</b> , 17, 44-49	11.5	20
42	Growth and Simultaneous Valleys Manipulation of Two-Dimensional MoSe-WSe Lateral Heterostructure. <i>ACS Nano</i> , <b>2017</b> , 11, 8822-8829	16.7	40
41	Self-organized growth and self-assembly of nanostructures on 2D materials. <i>FlatChem</i> , <b>2017</b> , 5, 50-68	5.1	24
40	Direct imaging of rotating molecules anchored on graphene. <i>Nanoscale</i> , <b>2016</b> , 8, 13174-80	7.7	9
39	Controlled aqueous synthesis of ultra-long copper nanowires for stretchable transparent conducting electrode. <i>Journal of Materials Chemistry C</i> , <b>2016</b> , 4, 1441-1447	7.1	65
38	Water-Mediated Photochemical Treatments for Low-Temperature Passivation of Metal-Oxide Thin-Film Transistors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 10403-12	9.5	46
37	Nanoparticle imaging. 3D structure of individual nanocrystals in solution by electron microscopy. <i>Science</i> , <b>2015</b> , 349, 290-5	33.3	183
36	Graphene edges and beyond: temperature-driven structures and electromagnetic properties. <i>ACS Nano</i> , <b>2015</b> , 9, 4669-74	16.7	25

35	Graphene-templated directional growth of an inorganic nanowire. <i>Nature Nanotechnology</i> , <b>2015</b> , 10, 423-8	28.7	60
34	Nucleation and Growth of the HfO <sub>2</sub> Dielectric Layer for Graphene-Based Devices. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 5868-5877	9.6	37
33	Effect of Chemical Structure on Polymer-Templated Growth of Graphitic Nanoribbons. <i>ACS Nano</i> , <b>2015</b> , 9, 9043-9	16.7	5
32	Shape-Controlled, Self-Wrapped Carbon Nanotube 3D Electronics. <i>Advanced Science</i> , <b>2015</b> , 2, 1500103	13.6	27
31	The Hide-and-Seek of Grain Boundaries from Moiré Pattern Fringe of Two-Dimensional Graphene. <i>Scientific Reports</i> , <b>2015</b> , 5, 12508	4.9	17
30	Structural and Electrical Investigation of C <sub>60</sub> -Graphene Vertical Heterostructures. <i>ACS Nano</i> , <b>2015</b> , 9, 5922-8	16.7	124
29	Large-area assembly of densely aligned single-walled carbon nanotubes using solution shearing and their application to field-effect transistors. <i>Advanced Materials</i> , <b>2015</b> , 27, 2656-62	24	104
28	Ultrahigh Surface Area Three-Dimensional Porous Graphitic Carbon from Conjugated Polymeric Molecular Framework. <i>ACS Central Science</i> , <b>2015</b> , 1, 68-76	16.8	177
27	B21-O-03 The Identification of Grain Boundaries in Two-dimensional Graphene using Moire Pattern Fringe. <i>Microscopy (Oxford, England)</i> , <b>2015</b> , 64, i40.2-i40	1.3	
26	Epitaxially grown strained pentacene thin film on graphene membrane. <i>Small</i> , <b>2015</b> , 11, 2037-43	11	43
25	Highly skin-conformal microhairry sensor for pulse signal amplification. <i>Advanced Materials</i> , <b>2015</b> , 27, 634-40	24	486
24	Subnanometer vacancy defects introduced on graphene by oxygen gas. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 2232-5	16.4	98
23	Selective metal deposition at graphene line defects by atomic layer deposition. <i>Nature Communications</i> , <b>2014</b> , 5, 4781	17.4	196
22	Graphene nanopore with a self-integrated optical antenna. <i>Nano Letters</i> , <b>2014</b> , 14, 5584-9	11.5	63
21	Large-scale production of graphene nanoribbons from electrospun polymers. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 17284-91	16.4	23
20	Direct growth of aligned graphitic nanoribbons from a DNA template by chemical vapour deposition. <i>Nature Communications</i> , <b>2013</b> , 4, 2402	17.4	45
19	3D motion of DNA-Au nanoconjugates in graphene liquid cell electron microscopy. <i>Nano Letters</i> , <b>2013</b> , 13, 4556-61	11.5	154
18	Atomically perfect torn graphene edges and their reversible reconstruction. <i>Nature Communications</i> , <b>2013</b> , 4, 2723	17.4	92

17	p-Channel field-effect transistors based on C60 doped with molybdenum trioxide. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2013</b> , 5, 2337-41	9.5	19
16	Electrical control of optical plasmon resonance with graphene. <i>Nano Letters</i> , <b>2012</b> , 12, 5598-602	11.5	224
15	Ripping graphene: preferred directions. <i>Nano Letters</i> , <b>2012</b> , 12, 293-7	11.5	172
14	High-resolution EM of colloidal nanocrystal growth using graphene liquid cells. <i>Science</i> , <b>2012</b> , 336, 61-4	33.3	829
13	Raman spectroscopy study of rotated double-layer graphene: misorientation-angle dependence of electronic structure. <i>Physical Review Letters</i> , <b>2012</b> , 108, 246103	7.4	427
12	In-situ Observations of Pt Nanoparticle Growth at Atomic Resolution Using Graphene Liquid Cells and Cc Correction. <i>Microscopy and Microanalysis</i> , <b>2012</b> , 18, 1096-1097	0.5	1
11	Graphene veils and sandwiches. <i>Nano Letters</i> , <b>2011</b> , 11, 3290-4	11.5	49
10	Grain boundary mapping in polycrystalline graphene. <i>ACS Nano</i> , <b>2011</b> , 5, 2142-6	16.7	522
9	Multiply folded graphene. <i>Physical Review B</i> , <b>2011</b> , 83,	3.3	247
8	Direct fabrication of zero- and one-dimensional metal nanocrystals by thermally assisted electromigration. <i>ACS Nano</i> , <b>2010</b> , 4, 2999-3004	16.7	14
7	Graphene nanoribbons obtained by electrically unwrapping carbon nanotubes. <i>ACS Nano</i> , <b>2010</b> , 4, 1362-66.7	66.7	128
6	High-temperature stability of suspended single-layer graphene. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2010</b> , 4, 302-304	2.5	80
5	Tuning nanoelectromechanical resonators with mass migration. <i>Nano Letters</i> , <b>2009</b> , 9, 3209-13	11.5	28
4	In-Situ TEM Observation of Metal Zn Nanocrystal Growth on ZnO Films. <i>Microscopy and Microanalysis</i> , <b>2009</b> , 15, 698-699	0.5	
3	An atomic-resolution nanomechanical mass sensor. <i>Nature Nanotechnology</i> , <b>2008</b> , 3, 533-7	28.7	805
2	One-Interlayer-Twisted Multilayer MoS <sub>2</sub> Moiré Superlattices. <i>Advanced Functional Materials</i> , 2111529	15.6	2
1	Anomalous Dimensionality-Driven Phase Transition of MoTe <sub>2</sub> in Van der Waals Heterostructure. <i>Advanced Functional Materials</i> , 2107376	15.6	3