

# Young-Kyun Kwon

## 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.

86  
papers

5,267  
citations

24  
h-index

72  
g-index

96  
ext. papers

5,738  
ext. citations

5.6  
avg, IF

5.48  
L-index

#	Paper	IF	Citations
86	Oxygen-mediated selection of Cu crystallographic orientation for growth of single-crystalline graphene. <i>Applied Surface Science</i> , <b>2022</b> , 584, 152585	6.7	
85	Phase-change mechanism and role of each element in Ag-In-Sb-Te: Chemical bond evolution. <i>Applied Surface Science</i> , <b>2021</b> , 544, 148838	6.7	3
84	Reactivity of different nitriding agents with chlorine-terminated surface during atomic layer deposition of silicon nitride. <i>Applied Surface Science</i> , <b>2021</b> , 535, 147727	6.7	4
83	Enhanced reliability of phase-change memory modulation of local structure and chemical bonding by incorporating carbon in GeSbTe.. <i>RSC Advances</i> , <b>2021</b> , 11, 22479-22488	3.7	1
82	Effects of paramagnetic fluctuations on the thermochemistry of MnO(100) surfaces in the oxygen evolution reaction. <i>Physical Chemistry Chemical Physics</i> , <b>2021</b> , 23, 859-865	3.6	2
81	Promoting the Reversible Oxygen Redox Reaction of Li-Excess Layered Cathode Materials with Surface Vanadium Cation Doping. <i>Advanced Science</i> , <b>2021</b> , 8, 2003013	13.6	8
80	Oxidation-enhanced thermoelectric efficiency in a two-dimensional phosphorene oxide. <i>Scientific Reports</i> , <b>2021</b> , 11, 18525	4.9	0
79	Transition Metal-Free Half-Metallicity in Two-Dimensional Gallium Nitride with a Quasi-Flat Band.. <i>Journal of Physical Chemistry Letters</i> , <b>2021</b> , 12, 12150-12156	6.4	
78	Elucidating the origin of electroplasticity in metallic materials. <i>Applied Materials Today</i> , <b>2020</b> , 21, 100874	6.6	14
77	Selective Formation of the Li <sub>4</sub> Mn <sub>5</sub> O <sub>12</sub> Surface Spinel Phase in Sulfur-Doped Li-Excess-Layered Cathode Materials for Improved Cycle Life. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2020</b> , 8, 8037-8048	8.3	8
76	Symmetry Dictated Grain Boundary State in a Two-Dimensional Topological Insulator. <i>Nano Letters</i> , <b>2020</b> , 20, 5837-5843	11.5	6
75	Ultra-low Energy Phase Change Memory with Improved Thermal Stability by Tailoring the Local Structure through Ag Doping. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 37285-37294	9.5	8
74	Unique phonon modes of a CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> hybrid perovskite film without the influence of defect structures: an attempt toward a novel THz-based application. <i>NPG Asia Materials</i> , <b>2020</b> , 12,	10.3	5
73	Unveiling giant hidden Rashba effects in two-dimensional Si <sub>2</sub> Bi <sub>2</sub> . <i>Npj 2D Materials and Applications</i> , <b>2020</b> , 4,	8.8	3
72	Phase-change like process through bond switching in distorted and resonantly bonded crystal. <i>Scientific Reports</i> , <b>2019</b> , 9, 12816	4.9	2
71	A "non-dynamical" way of describing room-temperature paramagnetic manganese oxide. <i>Physical Chemistry Chemical Physics</i> , <b>2019</b> , 21, 15932-15939	3.6	3
70	Comparative evaluation of the polynomial and spline fitting methods for the B <sub>0</sub> correction of CEST MRI data acquired from human brains. <i>International Journal of Imaging Systems and Technology</i> , <b>2019</b> , 29, 272-282	2.5	1

69	Low Lattice Thermal Conductivity of a Two-Dimensional Phosphorene Oxide. <i>Scientific Reports</i> , <b>2019</b> , 9, 5149	4.9	10
68	Strain effects on phase transitions in transition metal dichalcogenides. <i>Current Applied Physics</i> , <b>2019</b> , 19, 690-696	2.6	5
67	Closing the Surface Bandgap in Thin BiSe/Graphene Heterostructures. <i>ACS Nano</i> , <b>2019</b> , 13, 3931-3939	16.7	15
66	Suppression of the Hybridization of Surface States and Transport Property in Ultrathin Bi <sub>2</sub> Se <sub>3</sub> /graphene Heterostructure. <i>Applied Science and Convergence Technology</i> , <b>2019</b> , 28, 207-212	0.8	1
65	Two-dimensional Dirac fermions on oxidized black phosphorus. <i>Physical Chemistry Chemical Physics</i> , <b>2019</b> , 21, 24206-24211	3.6	4
64	Understanding luminescence properties of grain boundaries in GaN thin films and their atomistic origin. <i>Applied Physics Letters</i> , <b>2018</b> , 112, 131901	3.4	4
63	Latent Order in High-Angle Grain Boundary of GaN. <i>Scientific Reports</i> , <b>2018</b> , 8, 4647	4.9	2
62	Surface reaction of silicon chlorides during atomic layer deposition of silicon nitride. <i>Applied Surface Science</i> , <b>2018</b> , 432, 127-131	6.7	17
61	Ab initio study of aspirin adsorption on single-walled carbon and carbon nitride nanotubes. <i>Physical Chemistry Chemical Physics</i> , <b>2017</b> , 19, 8076-8081	3.6	18
60	Extremely high electrical conductance of microporous 3D graphene-like zeolite-templated carbon framework. <i>Scientific Reports</i> , <b>2017</b> , 7, 11460	4.9	19
59	Reactivity of different surface sites with silicon chlorides during atomic layer deposition of silicon nitride. <i>RSC Advances</i> , <b>2016</b> , 6, 68515-68524	3.7	24
58	Laser irradiation-induced modification of the amorphous phase in GeTe films: the role of intermediate GeTe bonding in the crystallization mechanism. <i>Journal of Materials Chemistry C</i> , <b>2015</b> , 3, 9393-9402	7.1	11
57	Enhancing mechanical toughness of aluminum surfaces by nano-boron implantation: An ab initio study. <i>Chemical Physics Letters</i> , <b>2015</b> , 620, 25-28	2.5	1
56	Rigid unit modes in sp <sup>2</sup> hybridized carbon systems: Origin of negative thermal expansion. <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	12
55	The determining factor of a preferred orientation of GaN domains grown on m-plane sapphire substrates. <i>Scientific Reports</i> , <b>2015</b> , 5, 16236	4.9	3
54	First-principles study on the adsorption properties of phenylalanine on carbon graphitic structures. <i>Journal of the Korean Physical Society</i> , <b>2015</b> , 67, 2020-2025	0.6	1
53	Is hexagonal boron nitride always good as a substrate for carbon nanotube-based devices?. <i>Physical Chemistry Chemical Physics</i> , <b>2015</b> , 17, 5072-7	3.6	6
52	Enhanced mechanical property of FeAl alloy due to Mn insertion: ab initio study. <i>Journal of Alloys and Compounds</i> , <b>2014</b> , 583, 295-299	5.7	17

51	First-principles investigation on dimerization of metal-encapsulated gold nanoclusters. <i>RSC Advances</i> , <b>2014</b> , 4, 192-198	3.7	5
50	Nanoscale Spin-State Ordering in LaCoO <sub>3</sub> Epitaxial Thin Films. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 2496-2501	16	60
49	Voltage-switchable photocurrents in single-walled carbon nanotube-silicon junctions for analog and digital optoelectronics. <i>Nature Photonics</i> , <b>2014</b> , 8, 239-243	33.9	49
48	Architected van der Waals epitaxy of ZnO nanostructures on hexagonal BN. <i>NPG Asia Materials</i> , <b>2014</b> , 6, e145-e145	10.3	37
47	Electronic properties of carbon nanotubes partially unzipped by oxygenation or fluorination. <i>Solid State Communications</i> , <b>2013</b> , 167, 27-30	1.6	1
46	Molecular adsorption study of nicotine and caffeine on single-walled carbon nanotubes from first principles. <i>Chemical Physics Letters</i> , <b>2013</b> , 580, 57-61	2.5	18
45	Liquid metal nanodroplet dynamics inside nanocontainers. <i>Scientific Reports</i> , <b>2013</b> , 3, 2588	4.9	6
44	High-performance H <sub>2</sub> S detection by redox reactions in semiconducting carbon nanotube-based devices. <i>Analyst, The</i> , <b>2013</b> , 138, 7206-11	5	21
43	Linear and Hexagonal Porous Structures of an Organic Charge Acceptor Hexaaza-triphenylene-hexacarbonitrile on Au(111) with CN $\pi$ -CN Dipolar Interactions. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 21371-21375	3.8	5
42	Entropy-based analysis and bioinformatics-inspired integration of global economic information transfer. <i>PLoS ONE</i> , <b>2013</b> , 8, e51986	3.7	16
41	Electronic structures of one-dimensional metal-molecule hybrid chains studied using scanning tunneling microscopy and density functional theory. <i>Physical Chemistry Chemical Physics</i> , <b>2012</b> , 14, 7304-8	3.6	47
40	Binding properties of a nitrogen atom onto an anionic golden fullerene. <i>Chemical Physics Letters</i> , <b>2012</b> , 545, 83-87	2.5	3
39	Adsorption properties of chalcogen atoms on a golden buckyball Au <sub>16</sub> (-) from first principles. <i>Journal of Physics Condensed Matter</i> , <b>2011</b> , 23, 505301	1.8	3
38	Universal parameters for carbon nanotube network-based sensors: can nanotube sensors be reproducible?. <i>ACS Nano</i> , <b>2011</b> , 5, 4373-9	16.7	58
37	Structure Controlled Synthesis of Vertically Aligned Carbon Nanotubes Using Thermal Chemical Vapor Deposition Process. <i>Journal of Heat Transfer</i> , <b>2011</b> , 133,	1.8	12
36	Tunable charge donation and spin polarization of metal adsorbates on graphene using an applied electric field. <i>Physical Review B</i> , <b>2010</b> , 82,	3.3	12
35	Electrical transport in small bundles of single-walled carbon nanotubes: Intertube interaction and effects of tube deformation. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 173107	3.4	26
34	Band gap control of small bundles of carbon nanotubes using applied electric fields: A density functional theory study. <i>Applied Physics Letters</i> , <b>2010</b> , 97, 063113	3.4	19

33	Effect of bundling on the stability, equilibrium geometry, and electronic structure of Mo <sub>6</sub> S <sub>9</sub> nanowires. <i>Physical Review B</i> , <b>2010</b> , 82,	3.3	8
32	Interplay between structural and electronic properties of bundled Mo <sub>6</sub> S <sub>9</sub> (x) nanowires. <i>Journal of Physics Condensed Matter</i> , <b>2010</b> , 22, 505301	1.8	5
31	Large-scale assembly of 'type-switchable' field effect transistors based on carbon nanotubes and nanoparticles. <i>Nanotechnology</i> , <b>2010</b> , 21, 345301	3.4	5
30	Designing rigid carbon foams. <i>Journal of Physics Condensed Matter</i> , <b>2010</b> , 22, 334220	1.8	23
29	Hydrogen Adsorption on sp <sup>2</sup> -Bonded Carbon Structures: Ab-initio Study. <i>Journal of the Korean Physical Society</i> , <b>2010</b> , 57, 778-786	0.6	15
28	Ethylene oxides as hydrogen storage material with pockets in the electronic binding energy distribution. <i>Physical Review B</i> , <b>2009</b> , 79,	3.3	3
27	"Textured" network devices: overcoming fundamental limitations of nanotube/nanowire network-based devices. <i>Small</i> , <b>2009</b> , 5, 1642-8	11	28
26	Nanowire and nanotube transistors for lab-on-a-chip applications. <i>Lab on A Chip</i> , <b>2009</b> , 9, 2267-80	7.2	43
25	Diameter Selective Growth of Vertically Aligned Single Walled Carbon Nanotubes and Study on Their Growth Mechanism. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 17143-17147	3.8	26
24	Morphology transformation of patterned, uniform and faceted GaN microcrystals. <i>Journal Physics D: Applied Physics</i> , <b>2008</b> , 41, 015406	3	6
23	Self-Clusterized Glycines on Single-Walled Carbon Nanotubes for Alcohol Sensing. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 629-634	3.8	18
22	Unusually High Thermal Conductivity in Carbon Nanotubes <b>2006</b> , 227-265		10
21	Linker-free directed assembly of high-performance integrated devices based on nanotubes and nanowires. <i>Nature Nanotechnology</i> , <b>2006</b> , 1, 66-71	28.7	181
20	Kwon, Berber, and Tom̄ek Reply:. <i>Physical Review Letters</i> , <b>2005</b> , 94,	7.4	8
19	Glassy materials as a hydrogen storage medium: Density functional calculations. <i>Physical Review B</i> , <b>2005</b> , 71,	3.3	11
18	Hydrogen storage by physisorption: beyond carbon. <i>Solid State Communications</i> , <b>2004</b> , 129, 769-773	1.6	82
17	Hydrogen adsorption on boron nitride nanotubes: A path to room-temperature hydrogen storage. <i>Physical Review B</i> , <b>2004</b> , 69,	3.3	220
16	Thermal contraction of carbon fullerenes and nanotubes. <i>Physical Review Letters</i> , <b>2004</b> , 92, 015901	7.4	173

15	Bonding and energy dissipation in a nanohook assembly. <i>Physical Review Letters</i> , <b>2003</b> , 91, 165503	7.4	23
14	Microscopic formation mechanism of nanotube peapods. <i>Physical Review Letters</i> , <b>2002</b> , 88, 185502	7.4	97
13	Giant magneto-conductance in twisted carbon nanotubes. <i>Europhysics Letters</i> , <b>2002</b> , 59, 75-80	1.6	11
12	Effect of van der Waals interactions on the Raman modes in single walled carbon nanotubes. <i>Physical Review Letters</i> , <b>2001</b> , 86, 3895-8	7.4	313
11	Characterization of spatial correlations in carbon nanotubes-modelling studies. <i>Journal of Alloys and Compounds</i> , <b>2001</b> , 328, 222-225	5.7	41
10	Electronic and structural properties of carbon nanohorns. <i>Physical Review B</i> , <b>2000</b> , 62, R2291-R2294	3.3	79
9	Fractional quantum conductance in carbon nanotubes. <i>Physical Review Letters</i> , <b>2000</b> , 84, 1974-7	7.4	150
8	Unusually high thermal conductivity of carbon nanotubes. <i>Physical Review Letters</i> , <b>2000</b> , 84, 4613-6	7.4	2415
7	Oriental melting in carbon nanotube ropes. <i>Physical Review Letters</i> , <b>2000</b> , 84, 1483-6	7.4	41
6	Bucky Shuttle Memory Device: Synthetic Approach and Molecular Dynamics Simulations. <i>Physical Review Letters</i> , <b>1999</b> , 82, 1470-1473	7.4	145
5	Electronic and structural properties of multiwall carbon nanotubes. <i>Physical Review B</i> , <b>1998</b> , 58, R16001-R16004	3.3	409
4	Do Carbon Nanotubes Spin When Bundled?. <i>Journal of Materials Research</i> , <b>1998</b> , 13, 2363-2367	2.5	12
3	Effect of intertube coupling on the electronic structure of carbon nanotube ropes. <i>Physical Review B</i> , <b>1998</b> , 58, R13314-R13317	3.3	124
2	Morphology and Stability of Growing Multiwall Carbon Nanotubes. <i>Physical Review Letters</i> , <b>1997</b> , 79, 2065-2068	7.4	99
1	Modulation of optical and electrical properties in hexagonal boron nitride by defects induced via oxygen plasma treatment. <i>2D Materials</i> ,	5.9	2