

# Hyung Gyu Park

## 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.

76  
papers

6,080  
citations

23  
h-index

77  
g-index

87  
ext. papers

6,680  
ext. citations

9.9  
avg, IF

5.62  
L-index

#	Paper	IF	Citations
76	The nucleation, radial growth, and bonding of TiO <sub>2</sub> deposited via atomic layer deposition on single-walled carbon nanotubes. <i>Applied Surface Science</i> , <b>2021</b> , 555, 149662	6.7	1
75	Architecture and mass transport properties of graphene-based membranes. <i>JMST Advances</i> , <b>2020</b> , 2, 77-88	1.9	
74	A new approach to characterize charge transfer reaction for solid oxide fuel cell. <i>Surface and Coatings Technology</i> , <b>2019</b> , 364, 377-382	4.4	1
73	Analytic approach to analyzing the performance of membrane dehumidification by pervaporation. <i>Journal of Mechanical Science and Technology</i> , <b>2019</b> , 33, 2979-2984	1.6	2
72	Molecular Sensing by SERS Using Entangled Nanofibers <b>2019</b> , 795-823		
71	Characterization of contact resistances in ceramic-coated vertically aligned carbon nanotube arrays.. <i>RSC Advances</i> , <b>2019</b> , 9, 7266-7275	3.7	1
70	Spacer-Assisted Amine-Coiled Carbon Nanotubes for CO Capture. <i>Langmuir</i> , <b>2019</b> , 35, 4453-4459	4	11
69	Macroscopic Salt Rejection through Electrostatically Gated Nanoporous Graphene. <i>Nano Letters</i> , <b>2019</b> , 19, 6400-6409	11.5	9
68	Assessing the Thickness-Permeation Paradigm in Nanoporous Membranes. <i>ACS Nano</i> , <b>2019</b> , 13, 134-142	16.7	12
67	Improved high-rate performance of a supercapacitor electrode from manganese-oxide-coated vertically aligned carbon nanotubes prepared by a pulsed current electrodeposition method. <i>Electrochimica Acta</i> , <b>2019</b> , 296, 676-682	6.7	10
66	An effect of gas-phase reactions on the vertically aligned CNT growth by temperature gradient chemical vapor deposition. <i>Carbon</i> , <b>2018</b> , 130, 607-613	10.4	14
65	Fast water transport in graphene nanofluidic channels. <i>Nature Nanotechnology</i> , <b>2018</b> , 13, 238-245	28.7	139
64	Pseudocapacitive Coating for Effective Capacitive Deionization. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 2442-2450	9.5	45
63	Multifunctional wafer-scale graphene membranes for fast ultrafiltration and high permeation gas separation. <i>Science Advances</i> , <b>2018</b> , 4, eaau0476	14.3	36
62	Noble-Metal-Free MoS <sub>2</sub> Platelets with Promising Catalytic Performance in Hydrogen Evolution Reaction for the Post-Lithium-Ion Battery. <i>ACS Applied Energy Materials</i> , <b>2018</b> , 1, 5993-5998	6.1	7
61	Osmotic Transport across Surface Functionalized Carbon Nanotube Membrane. <i>Nano Letters</i> , <b>2018</b> , 18, 6679-6685	11.5	23
60	How to select the optimal membrane distillation system for industrial applications. <i>Journal of Membrane Science</i> , <b>2018</b> , 565, 402-410	9.6	10

59	Gas concentration polarization and transport mechanism transition near thin polymeric membranes. <i>Journal of Membrane Science</i> , <b>2018</b> , 567, 1-6	9.6	5
58	Enhanced Chemical Separation by Freestanding CNT-Polyamide/Imide Nanofilm Synthesized at the Vapor-Liquid Interface. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 19305-19310	9.5	4
57	Atomic-Layer Deposition into 2- versus 3-Dimensionally Ordered Nanoporous Media: Pore Size or Connectivity?. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 4748-4754	9.6	11
56	A Novel Fabrication of 3.6 nm High Graphene Nanochannels for Ultrafast Ion Transport. <i>Advanced Materials</i> , <b>2017</b> , 29, 1605854	24	15
55	A Forest of Sub-1.5-nm-wide Single-Walled Carbon Nanotubes over an Engineered Alumina Support. <i>Scientific Reports</i> , <b>2017</b> , 7, 46725	4.9	15
54	Smart Reinvention of the Contact Lens with Graphene. <i>ACS Nano</i> , <b>2017</b> , 11, 5223-5226	16.7	20
53	Atomic Layer Deposition for Surface and Interface Engineering in Nanostructured Photovoltaic Devices <b>2017</b> , 119-148		2
52	Stability, Molecular Sieving, and Ion Diffusion Selectivity of a Lamellar Membrane from Two-Dimensional Molybdenum Disulfide. <i>Nano Letters</i> , <b>2017</b> , 17, 2342-2348	11.5	103
51	Annealing and polycrystallinity effects on the thermal conductivity of supported CVD graphene monolayers. <i>Nanoscale</i> , <b>2017</b> , 9, 15515-15524	7.7	7
50	Layer-selective synthesis of bilayer graphene via chemical vapor deposition. <i>2D Materials</i> , <b>2017</b> , 4, 0350239	3.9	8
49	Multilayer Two-Dimensional Water Structure Confined in MoS <sub>2</sub> . <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 16021-16028	3.8	23
48	Sensitive Detection of Competitive Molecular Adsorption by Surface-Enhanced Raman Spectroscopy. <i>Langmuir</i> , <b>2017</b> , 33, 6999-7006	4	17
47	Ion beam profiling from the interaction with a freestanding 2D layer. <i>Beilstein Journal of Nanotechnology</i> , <b>2017</b> , 8, 682-687	3	7
46	Failure mechanism of the polymer infiltration of carbon nanotube forests. <i>Nanotechnology</i> , <b>2016</b> , 27, 464002	3.4	7
45	Ion transport in graphene nanofluidic channels. <i>Nanoscale</i> , <b>2016</b> , 8, 19527-19535	7.7	21
44	Novel Graphene Membranes Theory and Application <b>2016</b> , 371-388		
43	High Conformity and Large Domain Monocrystalline Anatase on Multiwall Carbon Nanotube Core-Shell Nanostructure: Synthesis, Structure, and Interface. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 3488-3498	9.6	19
42	Understanding the interaction between energetic ions and freestanding graphene towards practical 2D perforation. <i>Nanoscale</i> , <b>2016</b> , 8, 8345-54	7.7	52

41	Morphology and crystallinity control of ultrathin TiO <sub>2</sub> layers deposited on carbon nanotubes by temperature-step atomic layer deposition. <i>Nanoscale</i> , <b>2015</b> , 7, 10622-33	7.7	37
40	Contact transfer length investigation of a 2D nanoparticle network by scanning probe microscopy. <i>Nanotechnology</i> , <b>2015</b> , 26, 365701	3.4	1
39	Ultimate permeation across atomically thin porous graphene. <i>Science</i> , <b>2014</b> , 344, 289-92	33.3	607
38	Fabrication of flexible, aligned carbon nanotube/polymer composite membranes by in-situ polymerization. <i>Journal of Membrane Science</i> , <b>2014</b> , 460, 91-98	9.6	84
37	Carbon nanofluidics of rapid water transport for energy applications. <i>Chemical Society Reviews</i> , <b>2014</b> , 43, 565-76	58.5	146
36	Enhanced charge transport kinetics in anisotropic, stratified photoanodes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 1389-93	9.5	10
35	Modeling and optimization of atomic layer deposition processes on vertically aligned carbon nanotubes. <i>Beilstein Journal of Nanotechnology</i> , <b>2014</b> , 5, 234-44	3	24
34	Nanofluidic Carbon Nanotube Membranes <b>2014</b> , 173-188		2
33	Water-assisted growth of uniform 100 nm diameter SWCNT arrays. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 21019-25	9.5	12
32	Manufacturing Over Many Scales: High Fidelity Macroscale Coverage of Nanoporous Metal Arrays via Lift-Off-Free Nanofabrication. <i>Advanced Materials Interfaces</i> , <b>2014</b> , 1, 1400084	4.6	1
31	Femtomolar molecular detection with CNT based SERS substrate <b>2014</b> ,		1
30	Confined Water in Carbon Nanotubes and Its Applications. <i>NATO Science for Peace and Security Series C: Environmental Security</i> , <b>2014</b> , 19-27	0.3	1
29	Metal-dielectric-CNT nanowires for femtomolar chemical detection by surface enhanced Raman spectroscopy. <i>Advanced Materials</i> , <b>2013</b> , 25, 4431-6	24	28
28	Facile diameter control of vertically aligned, narrow single-walled carbon nanotubes. <i>RSC Advances</i> , <b>2013</b> , 3, 1434-1441	3.7	20
27	Morphological Evolution of Fe/Mo Bimetallic Catalysts for Diameter and Density Modulation of Vertically Aligned Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 18657-18665	3.8	18
26	Evolutionary kinetics of graphene formation on copper. <i>Nano Letters</i> , <b>2013</b> , 13, 967-74	11.5	87
25	Temperature gradient chemical vapor deposition of vertically aligned carbon nanotubes. <i>Carbon</i> , <b>2013</b> , 54, 343-352	10.4	22
24	Low-bias active control of terahertz waves by coupling large-area CVD graphene to a terahertz metamaterial. <i>Nano Letters</i> , <b>2013</b> , 13, 3193-8	11.5	139

23	Iron Nanowires: Graphite Coating of Iron Nanowires for Nanorobotic Applications: Synthesis, Characterization and Magnetic Wireless Manipulation (Adv. Funct. Mater. 7/2013). <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 782-782	15.6	
22	Carbon Micronymphaea: Graphene on Vertically Aligned Carbon Nanotubes. <i>Journal of Nanomaterials</i> , <b>2013</b> , 2013, 1-7	3.2	3
21	Graphite Coating of Iron Nanowires for Nanorobotic Applications: Synthesis, Characterization and Magnetic Wireless Manipulation. <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 823-831	15.6	38
20	Observations of Early Stage Graphene Growth on Copper. <i>Electrochemical and Solid-State Letters</i> , <b>2012</b> , 15, K1		28
19	Role of Gas-phase Reactions and Thermal Gradient Control in Carbon Nanotube Synthesis. <i>Materials Research Society Symposia Proceedings</i> , <b>2012</b> , 1451, 91-96		
18	Carbon Nanotube Nanofluidics <b>2011</b> ,		1
17	Observation of the Graphene Surface Structure at the Early Stages of Graphene Growth on Copper. <i>ECS Transactions</i> , <b>2011</b> , 35, 147-159	1	
16	pH-tunable ion selectivity in carbon nanotube pores. <i>Langmuir</i> , <b>2010</b> , 26, 14848-53	4	90
15	Recent advances in nanoelectrode architecture for photochemical hydrogen production. <i>Energy and Environmental Science</i> , <b>2010</b> , 3, 1028	35.4	81
14	Mechanism and kinetics of growth termination in controlled chemical vapor deposition growth of multiwall carbon nanotube arrays. <i>Nano Letters</i> , <b>2009</b> , 9, 738-44	11.5	92
13	Nanofluidic Carbon Nanotube Membranes: Applications for Water Purification and Desalination <b>2009</b> , 77-93		4
12	Ion exclusion by sub-2-nm carbon nanotube pores. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2008</b> , 105, 17250-5	11.5	523
11	Mechanism of Ion Exclusion by Sub-2nm Carbon Nanotube Membranes. <i>Materials Research Society Symposia Proceedings</i> , <b>2008</b> , 1106, 1		7
10	Transport in packed-bed and wall-coated steam-methanol reformers. <i>Journal of Power Sources</i> , <b>2007</b> , 166, 194-201	8.9	40
9	Nanofluidics in carbon nanotubes. <i>Nano Today</i> , <b>2007</b> , 2, 22-29	17.9	963
8	A MEMS-based reformed methanol fuel cell for portable power. <i>Journal of Micromechanics and Microengineering</i> , <b>2007</b> , 17, S237-S242	2	18
7	Methanol steam reformer on a silicon wafer. <i>Journal of Microelectromechanical Systems</i> , <b>2006</b> , 15, 976-985		27
6	Fast mass transport through sub-2-nanometer carbon nanotubes. <i>Science</i> , <b>2006</b> , 312, 1034-7	33.3	2257

- 5 Analysis of Pulsating Flow in Elastic Parallel Plates and an Elastic Pipe Model Using Moving Boundary Algorithm. *Transactions of the Korean Society of Mechanical Engineers, B*, **2005**, 29, 425-434 0.5
- 4 Transport in a Methanol Steam Reformer as the Fuel Processor for Fuel Cell Systems **2004**, 433 1
- 3 Carbon Nanotube-Based Permeable Membranes. *Materials Research Society Symposia Proceedings*, **2004**, 820, 1 1
- 2 Transport in a Microfluidic Catalytic Reactor **2003**, 47 1
- 1 Carbon nanotube-based membranes: a platform for studying nanofluidics 1