

Hyung Gyu Park

List of Publications by Year in descending order

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83
papers

7,227
citations

218592

26
h-index

91828

69
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87
all docs

87
docs citations

87
times ranked

10164
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of anions on the phase transition temperature of two structurally isomeric polymers: poly(<i>N</i> -isopropylacrylamide) and poly(2-isopropyl-2-oxazoline). <i>Polymer Chemistry</i> , 2022, 13, 4615-4624.	1.9	2
2	The nucleation, radial growth, and bonding of TiO ₂ deposited via atomic layer deposition on single-walled carbon nanotubes. <i>Applied Surface Science</i> , 2021, 555, 149662.	3.1	3
3	Architecture and mass transport properties of graphene-based membranes. <i>JMST Advances</i> , 2020, 2, 77-88.	0.6	2
4	Macroscopic Salt Rejection through Electrostatically Gated Nanoporous Graphene. <i>Nano Letters</i> , 2019, 19, 6400-6409.	4.5	18
5	A new approach to characterize charge transfer reaction for solid oxide fuel cell. <i>Surface and Coatings Technology</i> , 2019, 364, 377-382.	2.2	3
6	Analytic approach to analyzing the performance of membrane dehumidification by pervaporation. <i>Journal of Mechanical Science and Technology</i> , 2019, 33, 2979-2984.	0.7	3
7	Molecular Sensing by SERS Using Entangled Nanofibers. , 2019, , 795-823.		0
8	Characterization of contact resistances in ceramic-coated vertically aligned carbon nanotube arrays. <i>RSC Advances</i> , 2019, 9, 7266-7275.	1.7	2
9	Spacer-Assisted Amine-Coiled Carbon Nanotubes for CO ₂ Capture. <i>Langmuir</i> , 2019, 35, 4453-4459.	1.6	21
10	Assessing the Thickness-Permeation Paradigm in Nanoporous Membranes. <i>ACS Nano</i> , 2019, 13, 134-142.	7.3	18
11	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> , 2019, 296, 676-682.	2.6	12
12	An effect of gas-phase reactions on the vertically aligned CNT growth by temperature gradient chemical vapor deposition. <i>Carbon</i> , 2018, 130, 607-613.	5.4	20
13	Fast water transport in graphene nanofluidic channels. <i>Nature Nanotechnology</i> , 2018, 13, 238-245.	15.6	220
14	Pseudocapacitive Coating for Effective Capacitive Deionization. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 2442-2450.	4.0	66
15	Multifunctional wafer-scale graphene membranes for fast ultrafiltration and high permeation gas separation. <i>Science Advances</i> , 2018, 4, eaau0476.	4.7	47
16	Noble-Metal-Free MoS ₂ Platelets with Promising Catalytic Performance in Hydrogen Evolution Reaction for the Post-Lithium-Ion Battery. <i>ACS Applied Energy Materials</i> , 2018, 1, 5993-5998.	2.5	11
17	Osmotic Transport across Surface Functionalized Carbon Nanotube Membrane. <i>Nano Letters</i> , 2018, 18, 6679-6685.	4.5	34
18	How to select the optimal membrane distillation system for industrial applications. <i>Journal of Membrane Science</i> , 2018, 565, 402-410.	4.1	14

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19	Gas concentration polarization and transport mechanism transition near thin polymeric membranes. <i>Journal of Membrane Science</i> , 2018, 567, 1-6.	4.1	8
20	Enhanced Chemical Separation by Freestanding CNTâ€“Polyamide/Imide Nanofilm Synthesized at the Vaporâ€“Liquid Interface. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 19305-19310.	4.0	5
21	Atomic-Layer Deposition into 2- versus 3-Dimensionally Ordered Nanoporous Media: Pore Size or Connectivity?. <i>Chemistry of Materials</i> , 2018, 30, 4748-4754.	3.2	14
22	A Novel Fabrication of 3.6 nm High Graphene Nanochannels for Ultrafast Ion Transport. <i>Advanced Materials</i> , 2017, 29, 1605854.	11.1	21
23	A Forest of Sub-1.5-nm-wide Single-Walled Carbon Nanotubes over an Engineered Alumina Support. <i>Scientific Reports</i> , 2017, 7, 46725.	1.6	17
24	Smart Reinvention of the Contact Lens with Graphene. <i>ACS Nano</i> , 2017, 11, 5223-5226.	7.3	25
25	Stability, Molecular Sieving, and Ion Diffusion Selectivity of a Lamellar Membrane from Two-Dimensional Molybdenum Disulfide. <i>Nano Letters</i> , 2017, 17, 2342-2348.	4.5	144
26	Annealing and polycrystallinity effects on the thermal conductivity of supported CVD graphene monolayers. <i>Nanoscale</i> , 2017, 9, 15515-15524.	2.8	9
27	Layer-selective synthesis of bilayer graphene via chemical vapor deposition. <i>2D Materials</i> , 2017, 4, 035023.	2.0	10
28	Multilayer Two-Dimensional Water Structure Confined in MoS ₂ . <i>Journal of Physical Chemistry C</i> , 2017, 121, 16021-16028.	1.5	35
29	Sensitive Detection of Competitive Molecular Adsorption by Surface-Enhanced Raman Spectroscopy. <i>Langmuir</i> , 2017, 33, 6999-7006.	1.6	25
30	Ion beam profiling from the interaction with a freestanding 2D layer. <i>Beilstein Journal of Nanotechnology</i> , 2017, 8, 682-687.	1.5	11
31	Understanding the interaction between energetic ions and freestanding graphene towards practical 2D perforation. <i>Nanoscale</i> , 2016, 8, 8345-8354.	2.8	64
32	Failure mechanism of the polymer infiltration of carbon nanotube forests. <i>Nanotechnology</i> , 2016, 27, 464002.	1.3	7
33	Ion transport in graphene nanofluidic channels. <i>Nanoscale</i> , 2016, 8, 19527-19535.	2.8	30
34	Novel Graphene Membranes â€“ Theory and Application. , 2016, , 371-388.		0
35	High Conformity and Large Domain Monocrystalline Anatase on Multiwall Carbon Nanotube Coreâ€“Shell Nanostructure: Synthesis, Structure, and Interface. <i>Chemistry of Materials</i> , 2016, 28, 3488-3496.	3.2	23
36	Architecture and Transport Properties of Membranes out of Graphene. <i>Membrane Journal</i> , 2016, 26, 239-252.	0.2	1

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37	Morphology and crystallinity control of ultrathin TiO ₂ layers deposited on carbon nanotubes by temperature-step atomic layer deposition. <i>Nanoscale</i> , 2015, 7, 10622-10633.	2.8	41
38	Contact transfer length investigation of a 2D nanoparticle network by scanning probe microscopy. <i>Nanotechnology</i> , 2015, 26, 365701.	1.3	1
39	Modeling and optimization of atomic layer deposition processes on vertically aligned carbon nanotubes. <i>Beilstein Journal of Nanotechnology</i> , 2014, 5, 234-244.	1.5	27
40	Nanofluidic Carbon Nanotube Membranes. , 2014, , 173-188.		4
41	Water-Assisted Growth of Uniform 100 nm Diameter SWCNT Arrays. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 21019-21025.	4.0	15
42	Manufacturing Over Many Scales: High Fidelity Macroscale Coverage of Nanoporous Metal Arrays via Lift-off-free Nanofabrication. <i>Advanced Materials Interfaces</i> , 2014, 1, 1400084.	1.9	1
43	Femtomolar molecular detection with CNT based SERS substrate. <i>Proceedings of SPIE</i> , 2014, , .	0.8	1
44	Ultimate Permeation Across Atomically Thin Porous Graphene. <i>Science</i> , 2014, 344, 289-292.	6.0	738
45	Fabrication of flexible, aligned carbon nanotube/polymer composite membranes by in-situ polymerization. <i>Journal of Membrane Science</i> , 2014, 460, 91-98.	4.1	96
46	Carbon nanofluidics of rapid water transport for energy applications. <i>Chemical Society Reviews</i> , 2014, 43, 565-576.	18.7	179
47	Enhanced Charge Transport Kinetics in Anisotropic, Stratified Photoanodes. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 1389-1393.	4.0	10
48	Confined Water in Carbon Nanotubes and Its Applications. <i>NATO Science for Peace and Security Series C: Environmental Security</i> , 2014, , 19-27.	0.1	1
49	Nanofluidics in Carbon Nanotubes. , 2014, , 1-6.		0
50	Metal-dielectric-CNT Nanowires for Femtomolar Chemical Detection by Surface Enhanced Raman Spectroscopy. <i>Advanced Materials</i> , 2013, 25, 4431-4436.	11.1	31
51	Facile diameter control of vertically aligned, narrow single-walled carbon nanotubes. <i>RSC Advances</i> , 2013, 3, 1434-1441.	1.7	22
52	Morphological Evolution of Fe-Mo Bimetallic Catalysts for Diameter and Density Modulation of Vertically Aligned Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , 2013, 117, 18657-18665.	1.5	22
53	Wafer-scale graphene synthesis, transfer and FETs. , 2013, , .		0
54	Interaction of single-layer CVD graphene with a metasurface of terahertz split-ring resonators. <i>Proceedings of SPIE</i> , 2013, , .	0.8	1

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55	Evolutionary Kinetics of Graphene Formation on Copper. <i>Nano Letters</i> , 2013, 13, 967-974.	4.5	97
56	Temperature gradient chemical vapor deposition of vertically aligned carbon nanotubes. <i>Carbon</i> , 2013, 54, 343-352.	5.4	25
57	Low-Bias Active Control of Terahertz Waves by Coupling Large-Area CVD Graphene to a Terahertz Metamaterial. <i>Nano Letters</i> , 2013, 13, 3193-3198.	4.5	163
58	Iron Nanowires: Graphite Coating of Iron Nanowires for Nanorobotic Applications: Synthesis, Characterization and Magnetic Wireless Manipulation (<i>Adv. Funct. Mater.</i> 7/2013). <i>Advanced Functional Materials</i> , 2013, 23, 782-782.	7.8	0
59	Carbon Micronymphaea: Graphene on Vertically Aligned Carbon Nanotubes. <i>Journal of Nanomaterials</i> , 2013, 2013, 1-7.	1.5	3
60	Graphite Coating of Iron Nanowires for Nanorobotic Applications: Synthesis, Characterization and Magnetic Wireless Manipulation. <i>Advanced Functional Materials</i> , 2013, 23, 823-831.	7.8	48
61	(Invited) Growth Kinetics and Uniform Scaling-up of Graphene Synthesis. <i>ECS Transactions</i> , 2013, 53, 17-26.	0.3	1
62	Role of Gas-phase Reactions and Thermal Gradient Control in Carbon Nanotube Synthesis. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1451, 91-96.	0.1	0
63	Observations of Early Stage Graphene Growth on Copper. <i>Electrochemical and Solid-State Letters</i> , 2012, 15, K1.	2.2	33
64	Observation of the Graphene Surface Structure at the Early Stages of Graphene Growth on Copper. <i>ECS Transactions</i> , 2011, 35, 147-159.	0.3	3
65	Recent advances in nanoelectrode architecture for photochemical hydrogen production. <i>Energy and Environmental Science</i> , 2010, 3, 1028.	15.6	90
66	pH-Tunable Ion Selectivity in Carbon Nanotube Pores. <i>Langmuir</i> , 2010, 26, 14848-14853.	1.6	100
67	Nanofluidic Carbon Nanotube Membranes: Applications for Water Purification and Desalination. , 2009, , 77-93.		9
68	Mechanism and Kinetics of Growth Termination in Controlled Chemical Vapor Deposition Growth of Multiwall Carbon Nanotube Arrays. <i>Nano Letters</i> , 2009, 9, 738-744.	4.5	104
69	Crystal Driven Neutron Source: A New Paradigm for Miniature Neutron Sources. , 2009, , .		2
70	Ion exclusion by sub-2-nm carbon nanotube pores. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 17250-17255.	3.3	609
71	Mechanism of Ion Exclusion by Sub-2nm Carbon Nanotube Membranes. <i>Materials Research Society Symposia Proceedings</i> , 2008, 1106, 1.	0.1	11
72	A MEMS-based reformed methanol fuel cell for portable power. <i>Journal of Micromechanics and Microengineering</i> , 2007, 17, S237-S242.	1.5	18

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73	Transport in packed-bed and wall-coated steam-methanol reformers. Journal of Power Sources, 2007, 166, 194-201.	4.0	49
74	Nanofluidics in carbon nanotubes. Nano Today, 2007, 2, 22-29.	6.2	1,072
75	Methanol Steam Reformer on a Silicon Wafer. Journal of Microelectromechanical Systems, 2006, 15, 976-985.	1.7	34
76	Fast Mass Transport Through Sub-2-Nanometer Carbon Nanotubes. Science, 2006, 312, 1034-1037.	6.0	2,604
77	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.	0.0	0
78	Transport in a Methanol Steam Reformer as the Fuel Processor for Fuel Cell Systems. , 2004, , 433.		2
79	Carbon Nanotube-Based Permeable Membranes. Materials Research Society Symposia Proceedings, 2004, 820, 1.	0.1	2
80	Transport in a Microfluidic Catalytic Reactor. , 2003, , 47.		1
81	Carbon nanotube-based membranes: a platform for studying nanofluidics. , 0, , .		1
82	Carbon Nanotube Nanofluidics. , 0, , .		3
83	Effects of interfacial polymerization conditions on performance of polyamide reverse osmosis membranes and optimization of polymerization conditions by statistical methodology. , 0, 74, 1-11.		0