

# Dun-Yen Kang

## List of Publications by Year in descending order

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75  
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236925  
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times ranked

2415  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dramatic Enhancement of CO <sub>2</sub> Uptake by Poly(ethyleneimine) Using Zirconosilicate Supports. <i>Journal of the American Chemical Society</i> , 2012, 134, 10757-10760.	13.7	205
2	Enhanced CO <sub>2</sub> Adsorption over Polymeric Amines Supported on Heteroatom-Incorporated SBA-15 Silica: Impact of Heteroatom Type and Loading on Sorbent Structure and Adsorption Performance. <i>Chemistry - A European Journal</i> , 2012, 18, 16649-16664.	3.3	118
3	Single-Walled Aluminosilicate Nanotube/Poly(vinyl alcohol) Nanocomposite Membranes. <i>ACS Applied Materials &amp; Interfaces</i> , 2012, 4, 965-976.	8.0	83
4	Dehydration, Dehydroxylation, and Rehydroxylation of Single-Walled Aluminosilicate Nanotubes. <i>ACS Nano</i> , 2010, 4, 4897-4907.	14.6	82
5	Polymorphism/pseudopolymorphism of metal-organic frameworks composed of zinc(II) and 2-methylimidazole: synthesis, stability, and application in gas storage. <i>RSC Advances</i> , 2016, 6, 89148-89156.	3.6	79
6	Modeling white light-emitting diodes with phosphor layers. <i>Applied Physics Letters</i> , 2006, 89, 231102.	3.3	73
7	Direct synthesis of single-walled aminoaluminosilicate nanotubes with enhanced molecular adsorption selectivity. <i>Nature Communications</i> , 2014, 5, 3342.	12.8	73
8	Single-Walled Aluminosilicate Nanotubes with Organic-Modified Interiors. <i>Journal of Physical Chemistry C</i> , 2011, 115, 7676-7685.	3.1	72
9	Shaping Single-Walled Metal Oxide Nanotubes from Precursors of Controlled Curvature. <i>Nano Letters</i> , 2012, 12, 827-832.	9.1	71
10	Modeling molecular transport in composite membranes with tubular fillers. <i>Journal of Membrane Science</i> , 2011, 381, 50-63.	8.2	56
11	Influence of crystal topology and interior surface functionality of metal-organic frameworks on PFOA sorption performance. <i>Microporous and Mesoporous Materials</i> , 2016, 236, 202-210.	4.4	51
12	Synthesis of Zeolitic Imidazolate Framework Core-Shell Nanosheets Using Zinc-Imidazole Pseudopolymorphs. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 18353-18361.	8.0	50
13	Rigorous calculations of permeation in mixed-matrix membranes: Evaluation of interfacial equilibrium effects and permeability-based models. <i>Journal of Membrane Science</i> , 2013, 448, 160-169.	8.2	44
14	Transition metal-catalyzed C-H activation as a route to structurally diverse di(arylthiophenyl)-diketopyrrolopyrroles. <i>Journal of Materials Chemistry</i> , 2012, 22, 21392.	6.7	42
15	Highly CO <sub>2</sub> Selective Metal-Organic Framework Membranes with Favorable Coulombic Effect. <i>Advanced Functional Materials</i> , 2021, 31, 2006924.	14.9	42
16	High-permeance metal-organic framework-based membrane adsorber for the removal of dye molecules in aqueous phase. <i>Environmental Science: Nano</i> , 2017, 4, 2205-2214.	4.3	41
17	Simulation and design of catalytic membrane reactor for hydrogen production via methylcyclohexane dehydrogenation. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 26296-26307.	7.1	39
18	High-flux mixed matrix membranes containing bimetallic zeolitic imidazole framework-8 for C <sub>3</sub> H <sub>6</sub> /C <sub>3</sub> H <sub>8</sub> separation. <i>Journal of Membrane Science</i> , 2020, 596, 117735.	8.2	39

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19	A generalized kinetic model for the formation and growth of single-walled metal oxide nanotubes. Chemical Engineering Science, 2013, 90, 200-212.	3.8	35
20	Pseudopolymorphic seeding for the rational synthesis of hybrid membranes with a zeolitic imidazolate framework for enhanced molecular separation performance. Journal of Materials Chemistry A, 2016, 4, 4172-4179.	10.3	33
21	Investigation of the Water Adsorption Properties and Structural Stability of MIL-100(Fe) with Different Anions. Langmuir, 2018, 34, 4180-4187.	3.5	33
22	Activation-Controlled Structure Deformation of Pillared-Bilayer Metal-Organic Framework Membranes for Gas Separations. Chemistry of Materials, 2019, 31, 7666-7677.	6.7	32
23	Metal-organic frameworks for dye sorption: structure-property relationships and scalable deposition of the membrane adsorber. CrystEngComm, 2018, 20, 5465-5474.	2.6	30
24	Investigating the Potential of Single-Walled Aluminosilicate Nanotubes in Water Desalination. ChemPhysChem, 2017, 18, 179-183.	2.1	26
25	Facile Defect Engineering of Zeolitic Imidazolate Frameworks towards Enhanced $C_{3H_6}/C_{3H_8}$ Separation Performance. Advanced Functional Materials, 2021, 31, 2105577.	14.9	26
26	Hybrid membrane process for post-combustion CO <sub>2</sub> capture from coal-fired power plant. Journal of Membrane Science, 2020, 603, 118001.	8.2	24
27	Suppressing Defect Formation in Metal-Organic Framework Membranes via Plasma-Assisted Synthesis for Gas Separations. ACS Applied Materials & Interfaces, 2021, 13, 41904-41915.	8.0	23
28	Coulombic effect on permeation of CO <sub>2</sub> in metal-organic framework membranes. Journal of Membrane Science, 2021, 639, 119742.	8.2	23
29	Structure-processing-property correlations in solution-processed, small-molecule, organic solar cells. Journal of Materials Chemistry C, 2013, 1, 5250.	5.5	22
30	Zeolite-Based Antifogging Coating via Direct Wet Deposition. Langmuir, 2019, 35, 2538-2546.	3.5	22
31	Highly selective mixed-matrix membranes with layered fillers for molecular separation. Journal of Membrane Science, 2016, 497, 394-401.	8.2	19
32	Chemistry-Encoded Convolutional Neural Networks for Predicting Gaseous Adsorption in Porous Materials. Journal of Physical Chemistry C, 2022, 126, 2813-2822.	3.1	19
33	NaP1 zeolite membranes with high selectivity for water-alcohol pervaporation. Journal of Membrane Science, 2021, 639, 119762.	8.2	18
34	Predictions of effective diffusivity of mixed matrix membranes with tubular fillers. Journal of Membrane Science, 2015, 485, 123-131.	8.2	17
35	Exploiting interior surface functionalization in reverse osmosis desalination membranes to mitigate permeability-selectivity trade-off: Molecular simulations of nanotube-based membranes. Desalination, 2020, 491, 114537.	8.2	17
36	Design, synthesis, photophysical and electrochemical properties of 2-(4,5-diphenyl-1-p-aryl-1H-imidazol-2-yl)phenol-based boron complexes. Dalton Transactions, 2015, 44, 10228-10236.	3.3	16

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37	Atmospheric Pressure Plasma Jet-Assisted Synthesis of Zeolite-Based Low- <i>k</i> Thin Films. ACS Applied Materials & Interfaces, 2018, 10, 900-908.	8.0	16
38	Relationships among the structural topology, bond strength, and mechanical properties of single-walled aluminosilicate nanotubes. Nanoscale, 2015, 7, 16222-16229.	5.6	15
39	Membrane adsorber containing a new Sm( <sup>III</sup> )-organic framework for dye removal. Environmental Science: Nano, 2019, 6, 1067-1076.	4.3	15
40	Pillared-bilayer metal-organic framework membranes for dehydration of isopropanol. Microporous and Mesoporous Materials, 2021, 326, 111344.	4.4	15
41	Solution-Processed Ultrathin Aluminosilicate Nanotube-Poly(vinyl alcohol) Composite Membranes with Partial Alignment of Nanotubes. ChemNanoMat, 2015, 1, 102-108.	2.8	14
42	Defective Single-Walled Aluminosilicate Nanotubes: Structural Stability and Mechanical Properties. ChemNanoMat, 2016, 2, 189-195.	2.8	14
43	Incorporation of single-walled aluminosilicate nanotubes for the control of crystal size and porosity of zeolitic imidazolate framework-L. CrystEngComm, 2016, 18, 881-887.	2.6	14
44	Zinc(II)-Organic Framework Films with Thermochromic and Solvatochromic Applications. Chemistry - A European Journal, 2020, 26, 4204-4208.	3.3	14
45	High-throughput fabrication of zeolite thin films via ultrasonic nozzle spray deposition. Microporous and Mesoporous Materials, 2018, 267, 171-180.	4.4	13
46	Solubility selectivity-enhanced SIFSIX-3-Ni-containing mixed matrix membranes for improved CO <sub>2</sub> /CH <sub>4</sub> separation efficiency. Journal of Membrane Science, 2021, 633, 119390.	8.2	13
47	Estimations of effective diffusivity of hollow fiber mixed matrix membranes. Journal of Membrane Science, 2015, 495, 269-275.	8.2	12
48	Enhanced pervaporation performance of zeolite membranes treated by atmospheric-pressure plasma. Journal of the Taiwan Institute of Chemical Engineers, 2020, 116, 112-120.	5.3	12
49	Phosphorescent light-emitting diodes using triscarbazole/bis(oxadiazole) hosts: comparison of homopolymer blends and random and block copolymers. Journal of Materials Chemistry C, 2014, 2, 6743.	5.5	11
50	Solution-processed ultra-low- <i>k</i> thin films comprising single-walled aluminosilicate nanotubes. Nanoscale, 2016, 8, 17427-17432.	5.6	11
51	Multifunctional nanoparticles with controllable dimensions and tripled orthogonal reactivity. Nanoscale, 2017, 9, 14787-14791.	5.6	11
52	Properties of Single-Walled Aluminosilicate Nanotube/Poly(vinyl alcohol) Aqueous Dispersions. Journal of Physical Chemistry B, 2018, 122, 380-391.	2.6	11
53	Scalable Wet Deposition of Zeolite AEI with a High Degree of Preferred Crystal Orientation. Angewandte Chemie - International Edition, 2018, 57, 13271-13276.	13.8	10
54	Hexagonal Superalignment of Nano-Objects with Tunable Separation in a Dilute and Spacer-Free Solution. Physical Review Letters, 2019, 123, 238002.	7.8	10

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55	Surface Engineering Layered Metal-Organic Framework to Enhance Processability and Stability in Water. ChemNanoMat, 2017, 3, 902-908.	2.8	9
56	Direct wet deposition of zeolite FAU thin films using stabilized colloidal suspensions. Microporous and Mesoporous Materials, 2018, 272, 286-295.	4.4	9
57	Microwave-Assisted Synthesis of Highly Monodispersed Single-Walled Aluminosilicate Nanotubes. ChemistrySelect, 2016, 1, 6212-6216.	1.5	8
58	Detailed Simulation of Fluid Dynamics and Heat Transfer in Coffee Bean Roaster. Journal of Food Process Engineering, 2017, 40, e12398.	2.9	8
59	Toward Long-Lasting Low-Haze Antifog Coatings through the Deposition of Zeolites. Industrial & Engineering Chemistry Research, 2020, 59, 13042-13050.	3.7	8
60	Conformational-change-induced selectivity enhancement of CAU-10-PDC membrane for H <sub>2</sub> /CH <sub>4</sub> and CO <sub>2</sub> /CH <sub>4</sub> separation. , 2021, 1, 100005.		7
61	Vapor-phase synthesis of poly( p -xylylene) membranes for gas separations. Journal of Membrane Science, 2017, 539, 101-107.	8.2	6
62	Surfactant-mediated self-assembly of nanocrystals to form hierarchically structured zeolite thin films with controlled crystal orientation. RSC Advances, 2017, 7, 49048-49055.	3.6	6
63	Transport-Relevant Pore Limiting Diameter for Molecular Separations in Metal-Organic Framework Membranes. Journal of Physical Chemistry C, 2021, 125, 20416-20425.	3.1	6
64	Wetting Properties and Thin-Film Quality in the Wet Deposition of Zeolites. ACS Omega, 2019, 4, 13488-13495.	3.5	5
65	Transparent Conductive Films Derived from Single-Walled Aluminosilicate Nanotubes. ACS Applied Nano Materials, 2019, 2, 6677-6689.	5.0	5
66	Influence of interwall interaction in double-walled aluminogermanate nanotubes on mechanical properties. Computational Materials Science, 2017, 135, 54-63.	3.0	4
67	Scalable Wet Deposition of Zeolite AEI with a High Degree of Preferred Crystal Orientation. Angewandte Chemie, 2018, 130, 13455-13460.	2.0	4
68	Thin Film Growth of 3D Sr-based Metal-Organic Framework on Conductive Glass via Electrochemical Deposition. ChemistryOpen, 2022, 11, e202100295.	1.9	4
69	Simulations of DNA stretching by flow field in microchannels with complex geometry. Biomicrofluidics, 2014, 8, 014106.	2.4	3
70	Investigating Friction as a Main Source of Entropy Generation in the Expansion of Confined Gas in a Piston-and-Cylinder Device. Journal of Chemical Education, 2015, 92, 1667-1671.	2.3	3
71	Relationships between the solution and solid-state properties of solution-cast low-k silica thin films. Physical Chemistry Chemical Physics, 2016, 18, 20371-20380.	2.8	3
72	cif2tube - Algorithm for constructing nanotube and nanoscroll models from crystallographic information files. Journal of the Taiwan Institute of Chemical Engineers, 2016, 68, 415-422.	5.3	2

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73	Core-Shell Metal-Organic Frameworks with Improving Cyclic Stability for Water Adsorption. Journal of Chemical Engineering of Japan, 2020, 53, 376-382.	0.6	1
74	Highly adhesive and disposable inorganic barrier films: made from 2D silicate nanosheets and water. Journal of Materials Chemistry A, 2022, 10, 1956-1964.	10.3	1
75	Metal-organic framework membranes for gas separation and pervaporation. , 2022, , 215-238.		0