Dong-Yeun Koh

List of Publications by Year
in descending order

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62 papers	1,879 citations	236833 25 h-index	265120 42 g-index
62 all docs	62 docs citations	62 times ranked	1741 citing authors

#	Article	IF	Citations
1	Homochiral Metal-Organic Framework Based Mixed Matrix Membrane for Chiral Resolution. Membranes, 2022, 12, 357.	1.4	10
2	Sustainable building materials employing solid diamines as CO2 sorbents. Korean Journal of Chemical Engineering, 2022, 39, 1975-1980.	1.2	2
3	All-Nanoporous fiber sorbent with a Non-Sacrificial polymer of intrinsic microporosity (PIM) matrix. Separation and Purification Technology, 2022, 289, 120639.	3.9	2
4	Modulation of Solvation Structure and Electrode Work Function by an Ultrathin Layer of Polymer of Intrinsic Microporosity in Zinc Ion Batteries. Small, 2022, 18, e2201163.	5.2	12
5	Refining petroleum with membranes. Science, 2022, 376, 1053-1054.	6.0	4
6	Enantioselective Mixed Matrix Membranes for Chiral Resolution. Membranes, 2021, 11, 279.	1.4	20
7	Mechanism and Kinetics of Oxidation Reaction of Aqueous Ti₃C₂T_x Suspensions at Different pHs and Temperatures. ACS Applied Materials & Interfaces, 2021, 13, 22855-22865.	4.0	64
8	Controlled Synthesis of Metalâ€“Organic Frameworks in Scalable Open-Porous Contactor for Maximizing Carbon Capture Efficiency. Jacs Au, 2021, 1, 1198-1207.	3.6	23
9	Shapeâ€Selective Ultramicroporous Carbon Membranes for Subâ€0.1Ânm Organic Liquid Separation. Advanced Science, 2021, 8, e2004999.	5.6	9
10	Rational Tuning of Ultramicropore Dimensions in MOF-74 for Size-Selective Separation of Light Hydrocarbons. Chemistry of Materials, 2021, 33, 7686-7692.	3.2	8
11	Polyacrylonitrile-based carbon nanofibers as a matrix for laser desorption/ionization time-of-flight mass spectrometric analysis of small molecules under both positive and negative ionization modes. Analytical and Bioanalytical Chemistry, 2021, 413, 1193-1202.	1.9	4
12	One-step formation of hydrogen clusters in clathrate hydrates stabilized via natural gas blending. Energy Storage Materials, 2020, 24, 655-661.	9.5	45
13	CO₂ Absorption Using Membrane Contactors: Recent Progress and Future Perspective. Industrial & Engineering Chemistry Research, 2020, 59, 6773-6794.	1.8	66
14	Exfoliated MXene as a mediator for efficient laser desorption/ionization mass spectrometry analysis of various analytes. Talanta, 2020, 209, 120531.	2.9	13
15	Microporous Materials in Scalable Shapes: Fiber Sorbents. Chemistry of Materials, 2020, 32, 7081-7104.	3.2	15
16	Solid Carbonation via Ultrapermeable PIM-1 Hollow Fiber Membranes for Scalable CO₂ Utilization. ACS Sustainable Chemistry and Engineering, 2020, 8, 15620-15629.	3.2	3
17	Dynamic metal-polymer interaction for the design of chemoselective and long-lived hydrogenation catalysts. Science Advances, 2020, 6, eabb7369.	4.7	53
18	Highly Selective SSZâ€13 Zeolite Hollow Fiber Membranes by Ultraviolet Activation at Nearâ€Ambient Temperature. ChemNanoMat, 2019, 5, 61-67.	1.5	31

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19	2D-enabled membranes: materials and beyond. BMC Chemical Engineering, 2019, 1, .	3.4	27
20	Aging: Degradation of Permeability in Microporous Polymeric Membranes. Membrane Journal, 2019, 29, 191-201.	0.2	1
21	Ion-Exchanged SAPO-34 Membranes for Kryptonâ€“Xenon Separation: Control of Permeation Properties and Fabrication of Hollow Fiber Membranes. ACS Applied Materials & Interfaces, 2018, 10, 6361-6368.	4.0	33
22	Sub-ambient air separation via Li+ exchanged zeolite. Microporous and Mesoporous Materials, 2018, 256, 140-146.	2.2	20
23	High-Temperature Activation of Zeolite-Loaded Fiber Sorbents. Industrial & Engineering Chemistry Research, 2018, 57, 11757-11766.	1.8	15
24	Zeolitic Imidazolate Framework Membranes Supported on Macroporous Carbon Hollow Fibers by Fluidic Processing Techniques. Advanced Materials Interfaces, 2017, 4, 1700080.	1.9	34
25	Secondary gaseous guest-dependent structures of binary neopentyl alcohol hydrates and their tuning behavior for potential application to CO2 capture. Chemical Engineering Journal, 2017, 330, 890-898.	6.6	42
26	Enabling Widespread Use of Microporous Materials for Challenging Organic Solvent Separations. Chemistry of Materials, 2017, 29, 9863-9876.	3.2	50
27	Rapid Clathrate Hydrate Formation Using a Heavy Guest Molecule with Sodium Dodecyl Sulfate. Industrial & Engineering Chemistry Research, 2016, 55, 6079-6084.	1.8	19
28	Thermodynamic and spectroscopic identification of aldehyde hydrates. Korean Journal of Chemical Engineering, 2016, 33, 1897-1902.	1.2	7
29	Experimental verifications of Mpemba-like behaviors of clathrate hydrates. Korean Journal of Chemical Engineering, 2016, 33, 1903-1907.	1.2	46
30	Reverse osmosis molecular differentiation of organic liquids using carbon molecular sieve membranes. Science, 2016, 353, 804-807.	6.0	207
31	Tuning magnetism via selective injection into ice-like clathrate hydrates. Korean Journal of Chemical Engineering, 2016, 33, 1706-1711.	1.2	1
32	Gas hydrate inhibition by 3-hydroxytetrahydrofuran: Spectroscopic identifications and hydrate phase equilibria. Fluid Phase Equilibria, 2016, 413, 65-70.	1.4	14
33	Energy-efficient natural gas hydrate production using gas exchange. Applied Energy, 2016, 162, 114-130.	5.1	207
34	Oneâ€dimensional productivity assessment for onâ€field methane hydrate production using CO₂/N₂ mixture gas. AIChE Journal, 2015, 61, 1004-1014.	1.8	56
35	Soaking Process for the Enhanced Methane Recovery of Gas Hydrates via CO₂/N₂ Gas Injection. Energy & Fuels, 2015, 29, 8143-8150.	2.5	21
36	Reactive radical cation transfer in the cages of icy clathrate hydrates. Korean Journal of Chemical Engineering, 2015, 32, 350-353.	1.2	4

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37	Optical Interpretation of the Chemical Process of CH₄â€“CO₂ Exchange and Its Application to Gas Hydrate Production. Journal of Physical Chemistry C, 2015, 119, 21353-21357.	1.5	11
38	Membranes at the limit. Nature Nanotechnology, 2015, 10, 385-386.	15.6	48
39	Optical Properties of Tetrahydrofuran Clathrate Hydrates with Polyvinylpyrrolidone (THF +) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5 & Engineering Data, 2015, 60, 238-246.	1.0	6
40	Effect of Molecular Nitrogen on Multiple Hydrogen Occupancy in Clathrate Hydrates. Journal of Physical Chemistry C, 2014, 118, 20203-20208.	1.5	18
41	Tuning Cage Dimension in Clathrate Hydrates for Hydrogen Multiple Occupancy. Journal of Physical Chemistry C, 2014, 118, 3324-3330.	1.5	51
42	Effect of thermal history on lattice expansion and guest distribution of tetrahydrofuran clathrate hydrate with air molecules. Chemical Physics Letters, 2014, 597, 16-19.	1.2	4
43	Nondestructive natural gas hydrate recovery driven by air and carbon dioxide. Scientific Reports, 2014, 4, 6616.	1.6	54
44	Multiple guest occupancy in clathrate hydrates and its significance in hydrogen storage. Chemical Communications, 2013, 49, 6782.	2.2	35
45	Guest molecule dynamics and guest-specific degassing phenomenon of binary gas hydrate investigated by terahertz time-domain spectroscopy. RSC Advances, 2013, 3, 8857.	1.7	5
46	Physicochemical properties of semi-clathrate hydrates as revealed by terahertz time-domain spectroscopy. Chemical Physics Letters, 2013, 587, 14-19.	1.2	8
47	Structure Transition from Semi- to True Clathrate Hydrates Induced by CH₄ Enclathration. Journal of Physical Chemistry C, 2012, 116, 16352-16357.	1.5	22
48	Atomic Hydrogen Production from Semi-clathrate Hydrates. Journal of the American Chemical Society, 2012, 134, 5560-5562.	6.6	26
49	Spectroscopic Observation of Na Cations Entrapped in Small Cages of sII Propane Hydrate. Journal of Physical Chemistry C, 2012, 116, 1439-1444.	1.5	11
50	Spectroscopic Confirmation of Metastable Structure Formation Occurring in Natural Gas Hydrates. Chemistry - an Asian Journal, 2012, 7, 2235-2238.	1.7	8
51	Recovery of Methane from Gas Hydrates Intercalated within Natural Sediments Using CO₂ and a CO₂/N₂ Gas Mixture. ChemSusChem, 2012, 5, 1443-1448.	3.6	116
52	Phase equilibrium measurements and the tuning behavior of new sII clathrate hydrates. Journal of Chemical Thermodynamics, 2012, 44, 20-25.	1.0	37
53	Experimental verification of anomalous chloride enrichment related to methane hydrate formation in deepâ€sea sediments. AICHE Journal, 2012, 58, 322-328.	1.8	4
54	Metastability of Ethane Clathrate Hydrate Induced by [Co(NH3)6]3+ Complex. Journal of Physical Chemistry C, 2011, 115, 2558-2562.	1.5	6

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55	Thermal Expansivity of Ionic Clathrate Hydrates Including Gaseous Guest Molecules. Journal of Physical Chemistry B, 2011, 115, 958-963.	1.2	12
56	Water-Soluble Structure H Clathrate Hydrate Formers. Journal of Physical Chemistry C, 2011, 115, 18885-18889.	1.5	37
57	Abnormal methane occupancy of natural gas hydrates in deep sea floor sediments. Energy and Environmental Science, 2011, 4, 421-424.	15.6	31
58	Generalized Cage Occupancy Behavior in the Binary Clathrate Hydrates. Journal of Physical Chemistry C, 2010, 114, 17960-17963.	1.5	4
59	Superoxide Ions Entrapped in Water Cages of Ionic Clathrate Hydrates. Journal of the American Chemical Society, 2010, 132, 3694-3696.	6.6	21
60	Effect of Interlayer Ions on Methane Hydrate Formation in Clay Sediments. Journal of Physical Chemistry B, 2009, 113, 1245-1248.	1.2	39
61	Structural, Mineralogical, and Rheological Properties of Methane Hydrates in Smectite Clays. Journal of Chemical & Engineering Data, 2009, 54, 1284-1291.	1.0	48
62	Spectroscopic Observation of Atomic Hydrogen Radicals Entrapped in Icy Hydrogen Hydrate. Journal of the American Chemical Society, 2008, 130, 9208-9209.	6.6	29