

Dong-Yeun Koh

List of Publications by Year in descending order

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Version: 2024-02-01

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	Reverse osmosis molecular differentiation of organic liquids using carbon molecular sieve membranes. <i>Science</i> , 2016, 353, 804-807.	6.0	207
2	Energy-efficient natural gas hydrate production using gas exchange. <i>Applied Energy</i> , 2016, 162, 114-130.	5.1	207
3	Recovery of Methane from Gas Hydrates Intercalated within Natural Sediments Using CO ₂ and a CO ₂ /N ₂ Gas Mixture. <i>ChemSusChem</i> , 2012, 5, 1443-1448.	3.6	116
4	CO ₂ Absorption Using Membrane Contactors: Recent Progress and Future Perspective. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 6773-6794.	1.8	66
5	Mechanism and Kinetics of Oxidation Reaction of Aqueous Ti ₃ C ₂ T _x Suspensions at Different pHs and Temperatures. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 22855-22865.	4.0	64
6	One-dimensional productivity assessment for on-field methane hydrate production using CO ₂ /N ₂ mixture gas. <i>AIChE Journal</i> , 2015, 61, 1004-1014.	1.8	56
7	Nondestructive natural gas hydrate recovery driven by air and carbon dioxide. <i>Scientific Reports</i> , 2014, 4, 6616.	1.6	54
8	Dynamic metal-polymer interaction for the design of chemoselective and long-lived hydrogenation catalysts. <i>Science Advances</i> , 2020, 6, eabb7369.	4.7	53
9	Tuning Cage Dimension in Clathrate Hydrates for Hydrogen Multiple Occupancy. <i>Journal of Physical Chemistry C</i> , 2014, 118, 3324-3330.	1.5	51
10	Enabling Widespread Use of Microporous Materials for Challenging Organic Solvent Separations. <i>Chemistry of Materials</i> , 2017, 29, 9863-9876.	3.2	50
11	Structural, Mineralogical, and Rheological Properties of Methane Hydrates in Smectite Clays. <i>Journal of Chemical & Engineering Data</i> , 2009, 54, 1284-1291.	1.0	48
12	Membranes at the limit. <i>Nature Nanotechnology</i> , 2015, 10, 385-386.	15.6	48
13	Experimental verifications of Mpemba-like behaviors of clathrate hydrates. <i>Korean Journal of Chemical Engineering</i> , 2016, 33, 1903-1907.	1.2	46
14	One-step formation of hydrogen clusters in clathrate hydrates stabilized via natural gas blending. <i>Energy Storage Materials</i> , 2020, 24, 655-661.	9.5	45
15	Secondary gaseous guest-dependent structures of binary neopentyl alcohol hydrates and their tuning behavior for potential application to CO ₂ capture. <i>Chemical Engineering Journal</i> , 2017, 330, 890-898.	6.6	42
16	Effect of Interlayer Ions on Methane Hydrate Formation in Clay Sediments. <i>Journal of Physical Chemistry B</i> , 2009, 113, 1245-1248.	1.2	39
17	Water-Soluble Structure H Clathrate Hydrate Formers. <i>Journal of Physical Chemistry C</i> , 2011, 115, 18885-18889.	1.5	37
18	Phase equilibrium measurements and the tuning behavior of new sII clathrate hydrates. <i>Journal of Chemical Thermodynamics</i> , 2012, 44, 20-25.	1.0	37

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19	Multiple guest occupancy in clathrate hydrates and its significance in hydrogen storage. <i>Chemical Communications</i> , 2013, 49, 6782.	2.2	35
20	Zeolitic Imidazolate Framework Membranes Supported on Macroporous Carbon Hollow Fibers by Fluidic Processing Techniques. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700080.	1.9	34
21	Ion-Exchanged SAPO-34 Membranes for Krypton/Xenon Separation: Control of Permeation Properties and Fabrication of Hollow Fiber Membranes. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 6361-6368.	4.0	33
22	Abnormal methane occupancy of natural gas hydrates in deep sea floor sediments. <i>Energy and Environmental Science</i> , 2011, 4, 421-424.	15.6	31
23	Highly Selective SSZ-13 Zeolite Hollow Fiber Membranes by Ultraviolet Activation at Near-Ambient Temperature. <i>ChemNanoMat</i> , 2019, 5, 61-67.	1.5	31
24	Spectroscopic Observation of Atomic Hydrogen Radicals Entrapped in Icy Hydrogen Hydrate. <i>Journal of the American Chemical Society</i> , 2008, 130, 9208-9209.	6.6	29
25	2D-enabled membranes: materials and beyond. <i>BMC Chemical Engineering</i> , 2019, 1, .	3.4	27
26	Atomic Hydrogen Production from Semi-clathrate Hydrates. <i>Journal of the American Chemical Society</i> , 2012, 134, 5560-5562.	6.6	26
27	Controlled Synthesis of Metal-Organic Frameworks in Scalable Open-Porous Contactor for Maximizing Carbon Capture Efficiency. <i>Jacs Au</i> , 2021, 1, 1198-1207.	3.6	23
28	Structure Transition from Semi- to True Clathrate Hydrates Induced by CH ₄ Enclathration. <i>Journal of Physical Chemistry C</i> , 2012, 116, 16352-16357.	1.5	22
29	Superoxide Ions Entrapped in Water Cages of Ionic Clathrate Hydrates. <i>Journal of the American Chemical Society</i> , 2010, 132, 3694-3696.	6.6	21
30	Soaking Process for the Enhanced Methane Recovery of Gas Hydrates via CO ₂ /N ₂ Gas Injection. <i>Energy & Fuels</i> , 2015, 29, 8143-8150.	2.5	21
31	Sub-ambient air separation via Li ⁺ exchanged zeolite. <i>Microporous and Mesoporous Materials</i> , 2018, 256, 140-146.	2.2	20
32	Enantioselective Mixed Matrix Membranes for Chiral Resolution. <i>Membranes</i> , 2021, 11, 279.	1.4	20
33	Rapid Clathrate Hydrate Formation Using a Heavy Guest Molecule with Sodium Dodecyl Sulfate. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 6079-6084.	1.8	19
34	Effect of Molecular Nitrogen on Multiple Hydrogen Occupancy in Clathrate Hydrates. <i>Journal of Physical Chemistry C</i> , 2014, 118, 20203-20208.	1.5	18
35	High-Temperature Activation of Zeolite-Loaded Fiber Sorbents. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 11757-11766.	1.8	15
36	Microporous Materials in Scalable Shapes: Fiber Sorbents. <i>Chemistry of Materials</i> , 2020, 32, 7081-7104.	3.2	15

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37	Gas hydrate inhibition by 3-hydroxytetrahydrofuran: Spectroscopic identifications and hydrate phase equilibria. <i>Fluid Phase Equilibria</i> , 2016, 413, 65-70.	1.4	14
38	Exfoliated MXene as a mediator for efficient laser desorption/ionization mass spectrometry analysis of various analytes. <i>Talanta</i> , 2020, 209, 120531.	2.9	13
39	Thermal Expansivity of Ionic Clathrate Hydrates Including Gaseous Guest Molecules. <i>Journal of Physical Chemistry B</i> , 2011, 115, 958-963.	1.2	12
40	Modulation of Solvation Structure and Electrode Work Function by an Ultrathin Layer of Polymer of Intrinsic Microporosity in Zinc Ion Batteries. <i>Small</i> , 2022, 18, e2201163.	5.2	12
41	Spectroscopic Observation of Na Cations Entrapped in Small Cages of sII Propane Hydrate. <i>Journal of Physical Chemistry C</i> , 2012, 116, 1439-1444.	1.5	11
42	Optical Interpretation of the Chemical Process of CH ₄ ↔ CO ₂ Exchange and Its Application to Gas Hydrate Production. <i>Journal of Physical Chemistry C</i> , 2015, 119, 21353-21357.	1.5	11
43	Homochiral Metal-Organic Framework Based Mixed Matrix Membrane for Chiral Resolution. <i>Membranes</i> , 2022, 12, 357.	1.4	10
44	Shape-Selective Ultramicroporous Carbon Membranes for Sub-0.1 Ånm Organic Liquid Separation. <i>Advanced Science</i> , 2021, 8, e2004999.	5.6	9
45	Spectroscopic Confirmation of Metastable Structure Formation Occurring in Natural Gas Hydrates. <i>Chemistry - an Asian Journal</i> , 2012, 7, 2235-2238.	1.7	8
46	Physicochemical properties of semi-clathrate hydrates as revealed by terahertz time-domain spectroscopy. <i>Chemical Physics Letters</i> , 2013, 587, 14-19.	1.2	8
47	Rational Tuning of Ultramicropore Dimensions in MOF-74 for Size-Selective Separation of Light Hydrocarbons. <i>Chemistry of Materials</i> , 2021, 33, 7686-7692.	3.2	8
48	Thermodynamic and spectroscopic identification of aldehyde hydrates. <i>Korean Journal of Chemical Engineering</i> , 2016, 33, 1897-1902.	1.2	7
49	Metastability of Ethane Clathrate Hydrate Induced by [Co(NH ₃) ₆] ³⁺ Complex. <i>Journal of Physical Chemistry C</i> , 2011, 115, 2558-2562.	1.5	6
50	Optical Properties of Tetrahydrofuran Clathrate Hydrates with Polyvinylpyrrolidone (THF +) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 227 Td & Engineering Data, 2015, 60, 238-246.	1.0	6
51	Guest molecule dynamics and guest-specific degassing phenomenon of binary gas hydrate investigated by terahertz time-domain spectroscopy. <i>RSC Advances</i> , 2013, 3, 8857.	1.7	5
52	Generalized Cage Occupancy Behavior in the Binary Clathrate Hydrates. <i>Journal of Physical Chemistry C</i> , 2010, 114, 17960-17963.	1.5	4
53	Experimental verification of anomalous chloride enrichment related to methane hydrate formation in deep-sea sediments. <i>AIChE Journal</i> , 2012, 58, 322-328.	1.8	4
54	Effect of thermal history on lattice expansion and guest distribution of tetrahydrofuran clathrate hydrate with air molecules. <i>Chemical Physics Letters</i> , 2014, 597, 16-19.	1.2	4

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55	Reactive radical cation transfer in the cages of icy clathrate hydrates. Korean Journal of Chemical Engineering, 2015, 32, 350-353.	1.2	4
56	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
57	Refining petroleum with membranes. Science, 2022, 376, 1053-1054.	6.0	4
58	Solid Carbonation <i>via</i> Ultraparpermeable PIM-1 Hollow Fiber Membranes for Scalable CO ₂ Utilization. ACS Sustainable Chemistry and Engineering, 2020, 8, 15620-15629.	3.2	3
59	Sustainable building materials employing solid diamines as CO ₂ sorbents. Korean Journal of Chemical Engineering, 2022, 39, 1975-1980.	1.2	2
60	All-Nanoporous fiber sorbent with a Non-Sacrificial polymer of intrinsic microporosity (PIM) matrix. Separation and Purification Technology, 2022, 289, 120639.	3.9	2
61	Tuning magnetism via selective injection into ice-like clathrate hydrates. Korean Journal of Chemical Engineering, 2016, 33, 1706-1711.	1.2	1
62	Aging: Degradation of Permeability in Microporous Polymeric Membranes. Membrane Journal, 2019, 29, 191-201.	0.2	1