

Kyuchul Shin

List of Publications by Year in descending order

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54
papers

1,525
citations

331670

21
h-index

315739

38
g-index

55
all docs

55
docs citations

55
times ranked

916
citing authors

#	ARTICLE	IF	CITATIONS
1	Separation and purification of Sr-90 nuclide from a waste mixture. Journal of Radioanalytical and Nuclear Chemistry, 2022, 331, 275-281.	1.5	1
2	Effect of Methanol Guests on Thermal Properties of NH ₄ F-Doped THF Clathrate Hydrate. Energy & Fuels, 2022, 36, 10504-10511.	5.1	2
3	Managing hydrogen bonding in the clathrate hydrate of the 1-pentanol guest molecule. CrystEngComm, 2021, 23, 4708-4716.	2.6	5
4	Incorporation of Ammonium Fluoride and Methanol in Carbon Dioxide Clathrate Hydrates and Their Significance for Hydrate-Based Gas Separation. Industrial & Engineering Chemistry Research, 2021, 60, 11267-11276.	3.7	5
5	Enhanced methane storage in clathrate hydrates induced by antifreezes. Chemical Engineering Journal, 2021, 418, 129304.	12.7	24
6	Solid-state conversion of metal oleate precursors for the preparation of LiNi _{1/3} Co _{1/3} Mn _{1/3} O ₂ as cathode material for lithium-ion batteries. Korean Journal of Chemical Engineering, 2020, 37, 1258-1265.	2.7	4
7	Effects of Large Guest Molecular Structure on Thermal Expansion Behaviors in Binary (C ₄ H ₈ O + CH ₄) Clathrate Hydrates. Journal of Physical Chemistry C, 2019, 123, 20705-20714.	3.1	8
8	Spectroscopic Observations of Host-Guest Hydrogen Bonding in Binary Cyclopropanemethanol + Methane Hydrate. Journal of Physical Chemistry C, 2019, 123, 26777-26784.	3.1	8
9	Highly Efficient Recovery of Water-Soluble Polymers in Synergistic Kinetic Inhibition of Gas Hydrate Formation. ACS Applied Polymer Materials, 2019, 1, 130-135.	4.4	6
10	Clathrate nanocage reactor for the decomposition of greenhouse gas. Chemical Engineering Journal, 2019, 359, 1629-1634.	12.7	28
11	LCST-Modulated Polymers for Synergistic Hydrate Inhibition in Methane Gas Flowlines. Energy & Fuels, 2018, 32, 3013-3021.	5.1	20
12	Structural Identification of Binary Tetrahydrofuran + O ₂ and 3-Hydroxytetrahydrofuran + O ₂ Clathrate Hydrates by Rietveld Analysis with Direct Space Method. Crystals, 2018, 8, 328.	2.2	8
13	Thermal expansivity of ¹³ C-irradiated clathrate hydrate with intracavity conformational change. Chemical Physics Letters, 2018, 706, 14-18.	2.6	4
14	Managing Hydrogen Bonding in Clathrate Hydrates by Crystal Engineering. Angewandte Chemie - International Edition, 2017, 56, 6171-6175.	13.8	25
15	Managing Hydrogen Bonding in Clathrate Hydrates by Crystal Engineering. Angewandte Chemie, 2017, 129, 6267-6271.	2.0	20
16	Thermodynamic Stability of Structure II Methyl Vinyl Ketone Binary Clathrate Hydrates and Effects of Secondary Guest Molecules on Large Guest Conformation. ACS Omega, 2017, 2, 1601-1607.	3.5	9
17	CH ₄ -CO ₂ replacement occurring in all natural gas hydrates for CH ₄ recovery and CO ₂ sequestration. Energy Conversion and Management, 2017, 150, 356-364.	9.2	60
18	Structure identification of binary 1-propanol+methane hydrate using neutron powder diffraction. Korean Journal of Chemical Engineering, 2017, 34, 2514-2518.	2.7	15

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19	Intracavity Conformational Changes in Clathrate Hydrates. <i>Journal of Physical Chemistry C</i> , 2016, 120, 17190-17195.	3.1	10
20	Structural identification of DCIO ₄ clathrate hydrates: Neutron powder diffraction analysis. <i>Korean Journal of Chemical Engineering</i> , 2016, 33, 1728-1735.	2.7	3
21	Effect of Hydrate Shell Formation on the Stability of Dry Water. <i>Journal of Physical Chemistry C</i> , 2015, 119, 1690-1699.	3.1	52
22	Kinetics of Methane Hydrate Replacement with Carbon Dioxide and Nitrogen Gas Mixture Using in Situ NMR Spectroscopy. <i>Environmental Science & Technology</i> , 2015, 49, 1964-1971.	10.0	111
23	Effect of Guest-Host Hydrogen Bonding on Thermodynamic Stability of Clathrate Hydrates: Diazine Isomers. <i>Journal of Physical Chemistry C</i> , 2015, 119, 10218-10226.	3.1	14
24	In situ Raman and ¹³ C NMR spectroscopic analysis of gas hydrates formed in confined water: application to natural gas capture. <i>Canadian Journal of Chemistry</i> , 2015, 93, 1035-1042.	1.1	7
25	Crystal engineering and characterization of a structure-H ionic clathrate hydrate. <i>Canadian Journal of Chemistry</i> , 2015, 93, 850-857.	1.1	8
26	Molecular Dynamics Simulations of Hydrogen Bonding in Clathrate Hydrates with Ammonia and Methanol Guest Molecules. <i>Journal of Chemical & Engineering Data</i> , 2015, 60, 389-397.	1.9	34
27	Effect of kinetic hydrate inhibitor and liquid hydrocarbon on the heterogeneous segregation and deposition of gas hydrate particles. <i>Korean Journal of Chemical Engineering</i> , 2014, 31, 2177-2182.	2.7	6
28	Antifreezes Act as Catalysts for Methane Hydrate Formation from Ice. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 10429-10433.	13.8	33
29	Crystal engineering the clathrate hydrate lattice with NH ₄ ⁺ F. <i>CrystEngComm</i> , 2014, 16, 7209-7217.	2.6	36
30	Synergistic Hydrate Inhibition of Monoethylene Glycol with Poly(vinylcaprolactam) in Thermodynamically Underinhibited System. <i>Journal of Physical Chemistry B</i> , 2014, 118, 9065-9075.	2.6	78
31	Preventing Gas Hydrate Agglomeration with Polymer Hydrogels. <i>Energy & Fuels</i> , 2014, 28, 4409-4420.	5.1	32
32	Abnormal Proton Positioning of Water Framework in the Presence of Paramagnetic Guest within Ion-Doped Clathrate Hydrate Host. <i>Journal of Physical Chemistry C</i> , 2014, 118, 15193-15199.	3.1	8
33	Thermodynamic and kinetic hydrate inhibition performance of aqueous ethylene glycol solutions for natural gas. <i>Chemical Engineering Science</i> , 2013, 99, 184-190.	3.8	134
34	Catastrophic Growth of Gas Hydrates in the Presence of Kinetic Hydrate Inhibitors. <i>Journal of Physical Chemistry A</i> , 2013, 117, 13988-13995.	2.5	68
35	Methanol incorporation in clathrate hydrates and the implications for oil and gas pipeline flow assurance and icy planetary bodies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 8437-8442.	7.1	113
36	Ammonia clathrate hydrates as new solid phases for Titan, Enceladus, and other planetary systems. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 14785-14790.	7.1	99

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37	Metastability of Ethane Clathrate Hydrate Induced by [Co(NH ₃) ₆] ³⁺ Complex. Journal of Physical Chemistry C, 2011, 115, 2558-2562.	3.1	6
38	Superexchange-Like Interaction of Encaged Molecular Oxygen in Nitrogen-Doped Water Cages of Clathrate Hydrates. Journal of the American Chemical Society, 2011, 133, 20399-20404.	13.7	17
39	Direct observation of atomic hydrogen generated from the water framework of clathrate hydrates. Chemical Communications, 2011, 47, 674-676.	4.1	24
40	Thermal Expansivity of Ionic Clathrate Hydrates Including Gaseous Guest Molecules. Journal of Physical Chemistry B, 2011, 115, 958-963.	2.6	12
41	Physicochemical Properties of Ionic Clathrate Hydrates. Chemistry - an Asian Journal, 2010, 5, 22-34.	3.3	19
42	Superoxide Ions Entrapped in Water Cages of Ionic Clathrate Hydrates. Journal of the American Chemical Society, 2010, 132, 3694-3696.	13.7	21
43	Spectroscopy Identification and Thermodynamic Stability of <i>tert</i> -Butyl Nitrite and Methane Clathrate Hydrate. Journal of Chemical & Engineering Data, 2010, 55, 5906-5909.	1.9	5
44	Spectroscopic Identification of Amyl Alcohol Hydrates through Free OH Observation. Journal of Physical Chemistry B, 2009, 113, 10562-10565.	2.6	42
45	Tetra- <i>n</i> -butylammonium Borohydride Semiclathrate: A Hybrid Material for Hydrogen Storage. Journal of Physical Chemistry A, 2009, 113, 6415-6418.	2.5	70
46	Spectroscopic observation of H ₂ migration in structure-I clathrate hydrate. Korean Journal of Chemical Engineering, 2008, 25, 1397-1400.	2.7	8
47	Equilibrium and crystallographic measurements of the binary tetrahydrofuran and helium clathrate hydrates. Korean Journal of Chemical Engineering, 2008, 25, 154-157.	2.7	8
48	Swapping Phenomena Occurring in Deep-Sea Gas Hydrates. Energy & Fuels, 2008, 22, 3160-3163.	5.1	72
49	Discrete Magnetic Patterns of Nonionic and Ionic Clathrate Hydrates. Journal of the American Chemical Society, 2008, 130, 17234-17235.	13.7	16
50	Maximized Proton Conductivity of the HPF6 Clathrate Hydrate by Structural Transformation. Journal of Physical Chemistry C, 2008, 112, 13332-13335.	3.1	21
51	Structural Transformation due to Co-Host Inclusion in Ionic Clathrate Hydrates. Journal of the American Chemical Society, 2008, 130, 7180-7181.	13.7	19
52	Structure Transition and Tuning Pattern in the Double (Tetramethylammonium Hydroxide + Gaseous) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	2.5	25
53	Gauche conformation of acyclic guest molecules appearing in the large cages of structure-H clathrate hydrates. Korean Journal of Chemical Engineering, 2007, 24, 843-846.	2.7	11
54	Phase and kinetic behavior of the mixed methane and carbon dioxide hydrates. Korean Journal of Chemical Engineering, 2006, 23, 283-287.	2.7	10