

Hidetaka Yamada

List of Publications by Year in descending order

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78
papers

1,839
citations

304368

22
h-index

276539

41
g-index

80
all docs

80
docs citations

80
times ranked

1561
citing authors

#	ARTICLE	IF	CITATIONS
1	CO ₂ Capture by Tertiary Amine Absorbents: A Performance Comparison Study. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 8323-8331.	1.8	380
2	Synthesis and selection of hindered new amine absorbents for CO ₂ capture. <i>Energy Procedia</i> , 2011, 4, 201-208.	1.8	131
3	Density Functional Theory Study on Carbon Dioxide Absorption into Aqueous Solutions of 2-Amino-2-methyl-1-propanol Using a Continuum Solvation Model. <i>Journal of Physical Chemistry A</i> , 2011, 115, 3079-3086.	1.1	95
4	Amine-based capture of CO ₂ for utilization and storage. <i>Polymer Journal</i> , 2021, 53, 93-102.	1.3	93
5	Prediction of the Basicity of Aqueous Amine Solutions and the Species Distribution in the Amine-H ₂ O-CO ₂ System Using the COSMO-RS Method. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 2449-2455.	1.8	88
6	Large-Pore Mesostructured Silica Impregnated with Blended Amines for CO ₂ Capture. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 13810-13817.	1.8	75
7	CO ₂ solubility and species distribution in aqueous solutions of 2-(isopropylamino)ethanol and its structural isomers. <i>International Journal of Greenhouse Gas Control</i> , 2013, 17, 99-105.	2.3	61
8	Highly efficient post-combustion CO ₂ capture by low-temperature steam-aided vacuum swing adsorption using a novel polyamine-based solid sorbent. <i>Chemical Engineering Journal</i> , 2017, 307, 273-282.	6.6	55
9	Ab Initio Study of CO ₂ Capture Mechanisms in Aqueous Monoethanolamine: Reaction Pathways for the Direct Interconversion of Carbamate and Bicarbonate. <i>Journal of Physical Chemistry A</i> , 2013, 117, 9274-9281.	1.1	50
10	Development of hydrogen-selective triphenylmethoxysilane-derived silica membranes with tailored pore size by chemical vapor deposition. <i>Journal of Membrane Science</i> , 2016, 499, 28-35.	4.1	39
11	Quantitative Spectroscopic Study of Equilibrium in CO ₂ -Loaded Aqueous 2-(Ethylamino)ethanol Solutions. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 1617-1623.	1.8	34
12	A screening study of alcohol solvents for alkanolamine-based CO ₂ capture. <i>International Journal of Greenhouse Gas Control</i> , 2020, 99, 103081.	2.3	34
13	Synthesis and characterization of new absorbents for CO ₂ capture. <i>Energy Procedia</i> , 2013, 37, 265-272.	1.8	32
14	Development of Novel Synthetic Amine Absorbents for CO ₂ Capture. <i>Energy Procedia</i> , 2014, 63, 572-579.	1.8	32
15	Computational investigation of carbon dioxide absorption in alkanolamine solutions. <i>Journal of Molecular Modeling</i> , 2013, 19, 4147-4153.	0.8	31
16	Sustainable Aspects of Ultimate Reduction of CO ₂ in the Steelmaking Process (COURSE50 Project), Part 2: CO ₂ Capture. <i>Journal of Sustainable Metallurgy</i> , 2016, 2, 209-215.	1.1	28
17	Enhanced adsorption of carbon dioxide on surface-modified mesoporous silica-supported tetraethylenepentamine: Role of surface chemical structure. <i>Microporous and Mesoporous Materials</i> , 2015, 215, 76-83.	2.2	26
18	Response Surface Optimization of Impregnation of Blended Amines into Mesoporous Silica for High-Performance CO ₂ Capture. <i>Energy & Fuels</i> , 2015, 29, 985-992.	2.5	26

#	ARTICLE	IF	CITATIONS
19	Advanced CO ₂ Capture Technologies. SpringerBriefs in Energy, 2019, , .	0.2	26
20	Enhancement of CO ₂ Adsorption/Desorption Properties of Solid Sorbents Using Tetraethylenepentamine/Diethanolamine Blends. ACS Omega, 2020, 5, 23533-23541.	1.6	26
21	Comparison of Solvation Effects on CO ₂ Capture with Aqueous Amine Solutions and Amine-Functionalized Ionic Liquids. Journal of Physical Chemistry B, 2016, 120, 10563-10568.	1.2	25
22	Oxidative Degradation of Tetraethylenepentamine-Impregnated Silica Sorbents for CO ₂ Capture. Energy & Fuels, 2019, 33, 3370-3379.	2.5	24
23	Bottom-up Synthesis of Defect-free Mixed-matrix Membranes by Using Polymer-grafted Metal-Organic Polyhedra. Chemistry Letters, 2019, 48, 597-600.	0.7	22
24	Ab Initio Study of CO ₂ Capture Mechanisms in Monoethanolamine Aqueous Solution: Reaction Pathways from Carbamate to Bicarbonate. Energy Procedia, 2013, 37, 400-406.	1.8	21
25	Exploring the Role of Imidazoles in Amine-Impregnated Mesoporous Silica for CO ₂ Capture. Industrial & Engineering Chemistry Research, 2018, 57, 2638-2644.	1.8	21
26	Quantum chemical analysis of carbon dioxide absorption into aqueous solutions of moderately hindered amines. Energy Procedia, 2011, 4, 133-139.	1.8	20
27	Development of Post-combustion CO ₂ Capture System Using Amine-impregnated Solid Sorbent. Energy Procedia, 2017, 114, 2304-2312.	1.8	20
28	Enhancement Mechanism of the CO ₂ Adsorption-Desorption Efficiency of Silica-Supported Tetraethylenepentamine by Chemical Modification of Amino Groups. ACS Sustainable Chemistry and Engineering, 2019, 7, 9574-9581.	3.2	20
29	Development of high-performance polymer membranes for CO ₂ separation by combining functionalities of polyvinyl alcohol (PVA) and sodium polyacrylate (PAANa). Journal of Polymer Research, 2019, 26, 1.	1.2	20
30	Effects of Amine Structures on Oxidative Degradation of Amine-Functionalized Adsorbents for CO ₂ Capture. Industrial & Engineering Chemistry Research, 2021, 60, 4942-4950.	1.8	19
31	Development of Amine-impregnated Solid Sorbents for CO ₂ capture. Energy Procedia, 2014, 63, 2346-2350.	1.8	18
32	Ab Initio Study of CO ₂ Capture Mechanisms in Aqueous 2-Amino-2-methyl-1-propanol: Electronic and Steric Effects of Methyl Substituents on the Stability of Carbamate. Industrial & Engineering Chemistry Research, 2019, 58, 3549-3554.	1.8	17
33	CO ₂ Solubility Measurements and Modeling for Tertiary Diamines. Journal of Chemical & Engineering Data, 2015, 60, 814-820.	1.0	16
34	Carbon Dioxide Absorption using Solid Sorbents Incorporating Purified Components of Tetraethylenepentamine. Energy Technology, 2017, 5, 1186-1190.	1.8	15
35	Inhibitors of Oxidative Degradation of Polyamine-Modified Silica Sorbents for CO ₂ Capture. Industrial & Engineering Chemistry Research, 2019, 58, 15598-15605.	1.8	14
36	Simulations of dielectric constants and viscosities of organic electrolytes by quantum mechanics and molecular dynamics. Journal of Molecular Liquids, 2020, 312, 113288.	2.3	14

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37	Effect of isopropyl-substituent introduction into tetraethylenepentamine-based solid sorbents for CO ₂ capture. <i>Fuel</i> , 2018, 214, 14-19.	3.4	13
38	Insights into the Dielectric-Heating-Enhanced Regeneration of CO ₂ -Rich Aqueous Amine Solutions. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 13593-13599.	3.2	12
39	Dissociative ionization of ICl studied by ion imaging spectroscopy. <i>Journal of Chemical Physics</i> , 2002, 117, 1130-1138.	1.2	11
40	Development of Chemical CO ₂ Solvent For High Pressure CO ₂ Capture (2): Addition Effects of Non-aqueous Media on Amine Solutions. <i>Energy Procedia</i> , 2014, 63, 1963-1971.	1.8	10
41	Examination of Selection and Combination of Water-Absorbing Agent to Blend with Polyvinyl Alcohol (PVA) in Preparing CO ₂ -Separation Membrane with High-Performance. <i>Macromolecular Research</i> , 2020, 28, 365-372.	1.0	10
42	Molecular Dynamics Simulation Study on CO ₂ Physical Absorption Mechanisms for Ethylene-Glycol-Based Solvents Using Free Energy Calculations. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 8200-8206.	1.8	8
43	Optimal control of ultrafast selection. <i>Journal of Chemical Physics</i> , 2004, 120, 9446-9449.	1.2	7
44	Effects of the polymer composite composition and amine-based additives on the performance of a polymer composite CO ₂ separation membrane. <i>Polymer Bulletin</i> , 2021, 78, 513-528.	1.7	7
45	Selective transition to the closely-lying states Cs(7D3 ²) and Cs(7D5 ²) by femtosecond laser pulses. <i>Physical Review A</i> , 2005, 72, .	1.0	6
46	Generation of Broadband Mid-Infrared Pulses by Noncollinear Difference Frequency Mixing. <i>Japanese Journal of Applied Physics</i> , 2007, 46, 226-228.	0.8	6
47	Effect of alcohol chain length on carbon dioxide absorption into aqueous solutions of alkanolamines. <i>Energy Procedia</i> , 2013, 37, 499-504.	1.8	6
48	Modeling of CO ₂ Solubility in Tertiary Amine Solvents Using pK_a . <i>Journal of Chemical & Engineering Data</i> , 2016, 61, 2144-2148.	1.0	6
49	CO ₂ facilitated transport membranes prepared by blending polyvinyl alcohol and various water-absorbing agents. <i>Journal of Applied Polymer Science</i> , 2021, 138, 50191.	1.3	6
50	Photodissociation dynamics of CH ₃ CFCl ₂ and CDCl ₃ at 205–209nm. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2005, 176, 78-85.	2.0	5
51	Potential of Amine-based Solvents for Energy-saving CO ₂ Capture from a Coal-fired Power Plant. <i>Nihon Enerugi Gakkaiishi/Journal of the Japan Institute of Energy</i> , 2016, 95, 1133-1141.	0.2	5
52	Results of RITE's Advanced Liquid Absorbents Develop for Low Temperature CO ₂ Capture. <i>Energy Procedia</i> , 2017, 114, 1716-1720.	1.8	5
53	Chemistry of Amine-Based CO ₂ Capture. <i>SpringerBriefs in Energy</i> , 2019, , 3-22.	0.2	5
54	Experimental study into carbon dioxide solubility and species distribution in aqueous alkanolamine solutions. <i>WIT Transactions on Ecology and the Environment</i> , 2012, , .	0.0	5

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55	Physical properties of microspheres prepared by blending poly(lactide-co-glycolide) and poly lactide. Bulletin of Materials Science, 2021, 44, 1.	0.8	4
56	Demonstration Plant of the Kawasaki CO ₂ Capture (KCC) System with Solid Sorbent for Coal-Fired Power Station. SSRN Electronic Journal, 0, , .	0.4	4
57	CO ₂ Capture with Adsorbents. SpringerBriefs in Energy, 2019, , 45-63.	0.2	3
58	Catalysis of CO ₂ Absorption in an Aqueous Alkanolamine Solution by Boron Compounds: A Combined Computational and Experimental Study. Industrial & Engineering Chemistry Research, 2020, 59, 13016-13023.	1.8	3
59	Factors for improving the performance of the separation membranes prepared by the blending of polyvinyl alcohol and a water absorbing agent. Polymer-Plastics Technology and Materials, 2021, 60, 659-669.	0.6	3
60	A Simple Method of Evaluating Alkanolamine Absorbents for Post-Combustion CO ₂ Capture. Journal of Chemical Engineering of Japan, 2014, 47, 463-470.	0.3	2
61	Development of Chemical CO ₂ Solvent for High-pressure CO ₂ Capture (3): Analyses on Absorbed Forms of CO ₂ . Energy Procedia, 2017, 114, 2728-2735.	1.8	2
62	Preparation of Biodegradable Polymer Nanospheres Containing Manganese Porphyrin (Mn-Porphyrin). Journal of Inorganic and Organometallic Polymers and Materials, 2019, 29, 1010-1018.	1.9	2
63	High performance CO ₂ -facilitated transport membrane fabricated by compounding amine-terminated dendrimer in composite of polyvinyl alcohol and water-absorbing agent. Journal of Macromolecular Science - Pure and Applied Chemistry, 2021, 58, 849-859.	1.2	2
64	Cu K α pulse generation in an X-ray tube with a plasma cathode induced by a femtosecond laser pulse. Radiation Physics and Chemistry, 2009, 78, 375-379.	1.4	1
65	Computational Chemistry Study of Molecular Interactions in CO ₂ -loaded Diethylene Glycol, Triethylene Glycol, and Diethylene Glycol Dimethyl Ether. Journal of the Japan Petroleum Institute, 2016, 59, 211-218.	0.4	1
66	Membrane for CO ₂ Separation. SpringerBriefs in Energy, 2019, , 65-83.	0.2	1
67	Correlation between Macroscopic Diffusion Rates and Microscopic Interactions in Ethylene Glycol-Based Solvents. Industrial & Engineering Chemistry Research, 2021, 60, 13368-13376.	1.8	1
68	Advanced Post-Combustion Co ₂ Capture System Using Novel Polyamine-Based Solid Sorbents. SSRN Electronic Journal, 0, , .	0.4	1
69	Reaction of Amine-Based Solvents for CO ₂ Capture and its Pressure Dependence. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2019, 29, 199-205.	0.1	1
70	Development of a polyvinyl alcohol/sodium polyacrylate composite polymer membrane with cesium carbonate as a mobile carrier for high-performance CO ₂ capture. Polymers for Advanced Technologies, 2022, 33, 1677-1684.	1.6	1
71	CO ₂ Capture with Absorbents. SpringerBriefs in Energy, 2019, , 23-44.	0.2	0
72	Degradation Behavior of Purified Components of Tetraethylenepentamine Impregnated Solid Sorbents for Co ₂ Capture. SSRN Electronic Journal, 0, , .	0.4	0

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73	Guide to evaluate low viscous non-aqueous solvent for post-combustion CO ₂ capture. SSRN Electronic Journal, 0, , .	0.4	0
74	Development of a Kinetics Simulator based on Transition State Theory and Its Application to Gas Absorption Reaction in Solution. Kagaku Kogaku Ronbunshu, 2017, 43, 111-116.	0.1	0
75	A Guide to Evaluate Non-aqueous Solvents and Amine Absorbent Structures for Post-Combustion CO ₂ Capture. SSRN Electronic Journal, 0, , .	0.4	0
76	Development of Novel Solvents for CO ₂ Removal from Blast Furnace Gas. SSRN Electronic Journal, 0, , .	0.4	0
77	Development of Amino-Functionalized New Task Specific Ionic Liquids (Tsils) for Efficient CO ₂ Capture. SSRN Electronic Journal, 0, , .	0.4	0
78	CO ₂ Absorption Effect on Electric Conductivities for Butylethanolamine and Methyl-diethanolamine Aqueous Solutions at 313 K. Bunseki Kagaku, 2019, 68, 647-655.	0.1	0