Ponnivalavan Babu

List of Publications by Year
in descending order

33	4,461	201385 27	395343 33
papers	citations	h-index	g-index

33	33	33	1895
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Energy Analysis of Methane-Hydrate-Based Produced Water Desalination. Energy & Fuels, 2021, 35, 2514-2519.	2.5	28
2	Technoâ€Economic Evaluation of Cyclopentane Hydrateâ€Based Desalination with Liquefied Natural Gas Cold Energy Utilization. Energy Technology, 2020, 8, 1900212.	1.8	24
3	Effect of Salts on TBAB Semi Clathrate Hydrate Formation: Application to Produced Water Desalination. Energy & Fuels, 2020, 34, 12810-12821.	2.5	15
4	Hydrate-based desalination (HyDesal) process employing a novel prototype design. Chemical Engineering Science, 2020, 218, 115563.	1.9	47
5	Improved Kinetics and Water Recovery with Propane as Co-Guest Gas on the Hydrate-Based Desalination (HyDesal) Process. ChemEngineering, 2019, 3, 31.	1.0	19
6	Economic evaluation of energy efficient hydrate based desalination utilizing cold energy from liquefied natural gas (LNG). Desalination, 2019, 463, 69-80.	4.0	86
7	A novel conceptual design of hydrate based desalination (HyDesal) process by utilizing LNG cold energy. Applied Energy, 2018, 222, 13-24.	5.1	131
8	A Review of Clathrate Hydrate Based Desalination To Strengthen Energyâ€“Water Nexus. ACS Sustainable Chemistry and Engineering, 2018, 6, 8093-8107.	3.2	275
9	Impact of fixed bed reactor orientation, liquid saturation, bed volume and temperature on the clathrate hydrate process for pre-combustion carbon capture. Journal of Natural Gas Science and Engineering, 2016, 35, 1499-1510.	2.1	29
10	Review of natural gas hydrates as an energy resource: Prospects and challenges. Applied Energy, 2016, 162, 1633-1652.	5.1	1,328
11	Carbon dioxide hydrate kinetics in porous media with and without salts. Applied Energy, 2016, 162, 1131-1140.	5.1	113
12	Rapid methane hydrate formation to develop a cost effective large scale energy storage system. Chemical Engineering Journal, 2016, 290, 161-173.	6.6	261
13	A systematic kinetic study to evaluate the effect of tetrahydrofuran on the clathrate process for pre-combustion capture of carbon dioxide. Energy, 2016, 94, 431-442.	4.5	45
14	Experimental measurements and modeling of the dissociation conditions of semiclathrate hydrates of tetrabutyl ammonium nitrate and carbon dioxide. Fluid Phase Equilibria, 2016, 413, 80-85.	1.4	15
15	CO₂ capture using the clathrate hydrate process employing cellulose foam as a porous media. Canadian Journal of Chemistry, 2015, 93, 808-814.	0.6	39
16	A review of the hydrate based gas separation (HBGS) process forÂcarbon dioxide pre-combustion capture. Energy, 2015, 85, 261-279.	4.5	481
17	Effect of NaCl on methane hydrate formation and dissociation in porous media. Journal of Natural Gas Science and Engineering, 2015, 27, 178-189.	2.1	104
18	Methane Production from Natural Gas Hydrates via Carbon Dioxide Fixation. Energy Procedia, 2014, 61, 1776-1779.	1.8	14

#	Article	IF	Citations
19	Impact of experimental pressure and temperature on semiclathrate hydrate formation for pre-combustion capture of CO2 using tetra-n-butyl ammonium nitrate. Energy, 2014, 78, 458-464.	4.5	29
20	The Impact of Pressure and Temperature on Tetra-n-butyl Ammonium Bromide Semi-clathrate Process for Carbon Dioxide Capture. Energy Procedia, 2014, 61, 1780-1783.	1.8	8
21	Enhanced kinetics for the clathrate process in a fixed bed reactor in the presence of liquid promoters for pre-combustion carbon dioxide capture. Energy, 2014, 70, 664-673.	4.5	61
22	Formation and Dissociation Kinetics of Methane Hydrates in Seawater and Silica Sand. Energy & Fuels, 2014, 28, 2708-2716.	2.5	132
23	Unusual behavior of propane as a co-guest during hydrate formation in silica sand: Potential application to seawater desalination and carbon dioxide capture. Chemical Engineering Science, 2014, 117, 342-351.	1.9	131
24	Thermodynamic and Kinetic Verification of Tetra-<i>n</i>-butyl Ammonium Nitrate (TBANO₃) as a Promoter for the Clathrate Process Applicable to Precombustion Carbon Dioxide Capture. Environmental Science & Technology, 2014, 48, 3550-3558.	4.6	67
25	Systematic Evaluation of Tetra-<i>n</i>-butyl Ammonium Bromide (TBAB) for Carbon Dioxide Capture Employing the Clathrate Process. Industrial & Engineering Chemistry Research, 2014, 53, 4878-4887.	1.8	104
26	HBGS (hydrate based gas separation) process for carbon dioxide capture employing an unstirred reactor with cyclopentane. Energy, 2013, 63, 252-259.	4.5	125
27	A New Porous Material to Enhance the Kinetics of Clathrate Process: Application to Precombustion Carbon Dioxide Capture. Environmental Science & Technology, 2013, 47, 13191-13198.	4.6	91
28	Hydrate phase equilibrium of ternary gas mixtures containing carbon dioxide, hydrogen and propane. Journal of Chemical Thermodynamics, 2013, 61, 58-63.	1.0	67
29	Medium pressure hydrate based gas separation (HBGS) process for pre-combustion capture of carbon dioxide employing a novel fixed bed reactor. International Journal of Greenhouse Gas Control, 2013, 17, 206-214.	2.3	107
30	Morphology of Carbon Dioxideâ€“Hydrogenâ€“Cyclopentane Hydrates with or without Sodium Dodecyl Sulfate. Crystal Growth and Design, 2013, 13, 2047-2059.	1.4	86
31	Pre-combustion capture of carbon dioxide in a fixed bed reactor using the clathrate hydrate process. Energy, 2013, 50, 364-373.	4.5	222
32	Morphology of Methane Hydrate Formation in Porous Media. Energy & Fuels, 2013, 27, 3364-3372.	2.5	145
33	Dissociation of Fresh- And Seawater Hydrates along the Phase Boundaries between 2.3 and 17 MPa. Energy & Fuels, 2012, 26, 6240-6246.	2.5	32