

Cornelius Borecho Bavoh

List of Publications by Year in descending order

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98
papers

3,013
citations

136885

32
h-index

189801

50
g-index

100
all docs

100
docs citations

100
times ranked

992
citing authors

#	ARTICLE	IF	CITATIONS
1	A review on the role of amino acids in gas hydrate inhibition, CO ₂ capture and sequestration, and natural gas storage. Journal of Natural Gas Science and Engineering, 2019, 64, 52-71.	2.1	153
2	Review the impact of nanoparticles on the thermodynamics and kinetics of gas hydrate formation. Journal of Natural Gas Science and Engineering, 2018, 55, 452-465.	2.1	127
3	Experimental investigation on the dissociation conditions of methane hydrate in the presence of imidazolium-based ionic liquids. Journal of Chemical Thermodynamics, 2015, 84, 7-13.	1.0	118
4	Methane hydrate-liquid-vapour-equilibrium phase condition measurements in the presence of natural amino acids. Journal of Natural Gas Science and Engineering, 2017, 37, 425-434.	2.1	110
5	Thermodynamic effect of ammonium based ionic liquids on CO ₂ hydrates phase boundary. Journal of Molecular Liquids, 2017, 238, 533-539.	2.3	108
6	Inhibition effect of amino acids on carbon dioxide hydrate. Chemical Engineering Science, 2017, 171, 331-339.	1.9	105
7	Influence of tetramethylammonium hydroxide on methane and carbon dioxide gas hydrate phase equilibrium conditions. Fluid Phase Equilibria, 2017, 440, 1-8.	1.4	103
8	The impact of amino acids on methane hydrate phase boundary and formation kinetics. Journal of Chemical Thermodynamics, 2018, 117, 48-53.	1.0	97
9	A perspective on dual purpose gas hydrate and corrosion inhibitors for flow assurance. Journal of Petroleum Science and Engineering, 2019, 183, 106418.	2.1	75
10	Experimental and modelling studies on thermodynamic methane hydrate inhibition in the presence of ionic liquids. Journal of Molecular Liquids, 2018, 249, 886-891.	2.3	68
11	COSMO-RS: An ionic liquid prescreening tool for gas hydrate mitigation. Chinese Journal of Chemical Engineering, 2016, 24, 1619-1624.	1.7	66
12	Insight into ionic liquid as potential drilling mud additive for high temperature wells. Journal of Molecular Liquids, 2017, 242, 931-939.	2.3	65
13	Impacts of ammonium based ionic liquids alkyl chain on thermodynamic hydrate inhibition for carbon dioxide rich binary gas. Journal of Molecular Liquids, 2018, 261, 283-290.	2.3	62
14	Ammonium hydroxide IIs as dual-functional gas hydrate inhibitors for binary mixed gas (carbon) Tj ETQq0 0 0 rgBT /Qverlock 10 Tf 50 22	2.3	61
15	New methane hydrate phase boundary data in the presence of aqueous amino acids. Fluid Phase Equilibria, 2018, 478, 129-133.	1.4	60
16	Tetramethyl ammonium chloride as dual functional inhibitor for methane and carbon dioxide hydrates. Fuel, 2019, 236, 251-263.	3.4	59
17	Volumetric studies to examine the interactions of imidazolium based ionic liquids with water by means of density and speed of sound measurements. Journal of Chemical Thermodynamics, 2012, 54, 142-147.	1.0	55
18	Experimental Evaluation of a Novel Thermodynamic Inhibitor for CH ₄ and CO ₂ Hydrates. Procedia Engineering, 2016, 148, 932-940.	1.2	53

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19	Application of COSMO-RS in Investigating Ionic Liquid as Thermodynamic Hydrate Inhibitor for Methane Hydrate. <i>Procedia Engineering</i> , 2016, 148, 862-869.	1.2	52
20	Synergic Kinetic Inhibition Effect of EMIM-Cl + PVP on CO ₂ Hydrate Formation. <i>Procedia Engineering</i> , 2016, 148, 1232-1238.	1.2	51
21	Mean induction time and isothermal kinetic analysis of methane hydrate formation in water and imidazolium based ionic liquid solutions. <i>Journal of Chemical Thermodynamics</i> , 2018, 117, 147-154.	1.0	49
22	Experimental investigation on synthesis, characterization, stability, thermo-physical properties and rheological behavior of MWCNTs-kapok seed oil based nanofluid. <i>Journal of Molecular Liquids</i> , 2019, 277, 812-824.	2.3	49
23	Investigation of the task oriented dual function inhibitors in gas hydrate inhibition: A review. <i>Fluid Phase Equilibria</i> , 2018, 477, 40-57.	1.4	47
24	Phase equilibrium measurement and modeling approach to quaternary ammonium salts with and without monoethylene glycol for carbon dioxide hydrates. <i>Journal of Molecular Liquids</i> , 2019, 282, 106-114.	2.3	46
25	Investigation of functionalized carbon nanotubes' performance on carbon dioxide hydrate formation. <i>Energy</i> , 2019, 174, 602-610.	4.5	43
26	Selected physical properties of aqueous potassium salt of L-phenylalanine as a solvent for CO ₂ capture. <i>Chemical Engineering Research and Design</i> , 2016, 113, 169-181.	2.7	40
27	Impact of acetone on phase boundary of methane and carbon dioxide mixed hydrates. <i>Fluid Phase Equilibria</i> , 2016, 412, 51-56.	1.4	40
28	Experimental evaluation and thermodynamic modelling of AILs alkyl chain elongation on methane riched gas hydrate system. <i>Fluid Phase Equilibria</i> , 2018, 473, 300-309.	1.4	38
29	Assessing the impact of an ionic liquid on NaCl/KCl/polymer water-based mud (WBM) for drilling gas hydrate-bearing sediments. <i>Journal of Molecular Liquids</i> , 2019, 294, 111643.	2.3	38
30	A perspective on the potential application of bio-inhibitors for shale stabilization during drilling and hydraulic fracturing processes. <i>Journal of Natural Gas Science and Engineering</i> , 2020, 79, 103380.	2.1	38
31	Quaternary ammonium salts as thermodynamic hydrate inhibitors in the presence and absence of monoethylene glycol for methane hydrates. <i>Fuel</i> , 2020, 259, 116219.	3.4	37
32	Chemical Additives for Gas Hydrates. <i>Green Energy and Technology</i> , 2020, , .	0.4	35
33	An Overview on the potential application of ionic liquids in shale stabilization processes. <i>Journal of Natural Gas Science and Engineering</i> , 2020, 81, 103480.	2.1	35
34	Study of 1-(2-Hydroxyethyle) 3-methylimidazolium Halide as Thermodynamic Inhibitors. <i>Applied Mechanics and Materials</i> , 0, 625, 337-340.	0.2	33
35	Hydrate Dissociation Condition Measurement of CO ₂ -Rich Mixed Gas in the Presence of Methanol/Ethylene Glycol and Mixed Methanol/Ethylene Glycol + Electrolyte Aqueous Solution. <i>Journal of Chemical & Engineering Data</i> , 2014, 59, 3920-3926.	1.0	33
36	Thermophysical properties of aqueous lysine and its inhibition influence on methane and carbon dioxide hydrate phase boundary condition. <i>Fluid Phase Equilibria</i> , 2017, 454, 57-63.	1.4	31

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37	Gas Hydrate Formation Phase Boundary Behaviour of Synthetic Natural Gas System of the Keta Basin of Ghana. <i>Open Petroleum Engineering Journal</i> , 2017, 10, 64-72.	0.6	31
38	Research Advances, Maturation, and Challenges of Hydrate-Based CO ₂ Sequestration in Porous Media. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 15075-15108.	3.2	31
39	Combined Inhibition Effect of 1-Ethyl-3-methylimidazolium Chloride + Glycine on Methane Hydrate. <i>Journal of Physics: Conference Series</i> , 2018, 1123, 012060.	0.3	29
40	Thermodynamic and kinetic effect of biodegradable polymers on carbon dioxide hydrates. <i>Journal of Industrial and Engineering Chemistry</i> , 2019, 79, 131-145.	2.9	28
41	Experimental and modelling of the impact of quaternary ammonium salts/ionic liquid on the rheological and hydrate inhibition properties of xanthan gum water-based muds for drilling gas hydrate-bearing rocks. <i>Journal of Petroleum Science and Engineering</i> , 2019, 183, 106468.	2.1	28
42	Investigation on Gas Hydrates Formation and Dissociation in Multiphase Gas Dominant Transmission Pipelines. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 5052.	1.3	28
43	Catastrophic Crystal Growth of Clathrate Hydrate with a Simulated Natural Gas System during a Pipeline Shut-In Condition. <i>Crystal Growth and Design</i> , 2015, 15, 1233-1241.	1.4	26
44	Physical-chemical Properties of Aqueous TBAOH Solution for Gas Hydrates Promotion. <i>Procedia Engineering</i> , 2016, 148, 1351-1356.	1.2	24
45	Investigating the Potential Cuttings Transport Behavior of Ionic Liquids in Drilling Mud in the Presence of all Hydrates. <i>Energy & Fuels</i> , 2020, 34, 2903-2915.	2.5	24
46	Measurement and correlation of the physical properties of aqueous solutions of ammonium based ionic liquids. <i>Journal of Molecular Liquids</i> , 2018, 253, 250-258.	2.3	23
47	Towards a fundamental understanding of biopolymers and their role in gas hydrates: A review. <i>Journal of Natural Gas Science and Engineering</i> , 2021, 91, 103892.	2.1	23
48	Natural amino acids as potential swelling and dispersion inhibitors for montmorillonite-rich shale formations. <i>Journal of Petroleum Science and Engineering</i> , 2021, 196, 107664.	2.1	22
49	Ionic Liquids as Gas Hydrate Thermodynamic Inhibitors. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 15835-15873.	1.8	22
50	Experimental and modeling studies on enhancing the thermodynamic hydrate inhibition performance of monoethylene glycol via synergistic green material. <i>Scientific Reports</i> , 2021, 11, 2396.	1.6	21
51	Green silica scale inhibitors for Alkaline-Surfactant-Polymer flooding: a review. <i>Journal of Petroleum Exploration and Production</i> , 2016, 6, 379-385.	1.2	20
52	The Effect of Acidic Gases and Thermodynamic Inhibitors on the Hydrates Phase Boundary of Synthetic Malaysia Natural Gas. <i>IOP Conference Series: Materials Science and Engineering</i> , 0, 458, 012016.	0.3	19
53	Unraveling the effect of sub-cooling temperatures on the kinetic performance of biopolymers for methane hydrate. <i>Journal of Natural Gas Science and Engineering</i> , 2019, 65, 68-81.	2.1	18
54	Ionic liquids for the inhibition of gas hydrates. A review. <i>Environmental Chemistry Letters</i> , 2022, 20, 2165-2188.	8.3	17

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55	Experimental Equipment Validation for Methane (CH ₄) and Carbon Dioxide (CO ₂) Hydrates. IOP Conference Series: Materials Science and Engineering, 2018, 344, 012025.	0.3	15
56	Kinetic Assessment of Tetramethyl Ammonium Hydroxide (Ionic Liquid) for Carbon Dioxide, Methane and Binary Mix Gas Hydrates. , 0, , .		15
57	Thermodynamic modelling on methane hydrate equilibrium condition in the presence of electrolyte inhibitor. Materials Today: Proceedings, 2019, 19, 1395-1402.	0.9	15
58	Rheology Impact of Various Hydrophilic-Hydrophobic Balance (HLB) Index Non-Ionic Surfactants on Cyclopentane Hydrates. Molecules, 2020, 25, 3725.	1.7	15
59	Kinematic Study of Methane Hydrate Formation and Self-Preservation in the Presence of Functionalized Carbon Nanotubes. Energy & Fuels, 2019, 33, 7684-7695.	2.5	14
60	Phase behavior study on gas hydrates formation in gas dominant multiphase pipelines with crude oil and high CO ₂ mixed gas. Scientific Reports, 2020, 10, 14748.	1.6	14
61	Semi-clathratic impact of tetrabutylammonium hydroxide on the carbon dioxide hydrates. IOP Conference Series: Materials Science and Engineering, 0, 458, 012060.	0.3	13
62	Investigating the effect of silver nanoparticles on carbon dioxide hydrates formation. IOP Conference Series: Materials Science and Engineering, 2018, 458, 012058.	0.3	12
63	Methane hydrate phase behaviour in EMIM-Cl water based mud (WBM): An experimental and modelling study. South African Journal of Chemical Engineering, 2020, 34, 47-56.	1.2	12
64	Kinetic Behavior of Quaternary Ammonium Hydroxides in Mixed Methane and Carbon Dioxide Hydrates. Molecules, 2021, 26, 275.	1.7	11
65	Gas Hydrate Models. Green Energy and Technology, 2020, , 67-85.	0.4	11
66	Investigation on Thermodynamic Equilibrium Conditions of Methane Hydrates in Multiphase Gas-Dominant Pipelines. ACS Omega, 2021, 6, 2505-2512.	1.6	10
67	Effect of brine on the kinetics of Carbon dioxide hydrate formation and dissociation in porous media. Materials Today: Proceedings, 2021, 47, 1366-1370.	0.9	10
68	Application of Electrolyte Based Model on Ionic Liquids-Methane Hydrates Phase Boundary. IOP Conference Series: Materials Science and Engineering, 0, 458, 012073.	0.3	9
69	Assessing the Alkyl Chain Effect of Ammonium Hydroxides Ionic Liquids on the Kinetics of Pure Methane and Carbon Dioxide Hydrates. Energies, 2020, 13, 3272.	1.6	9
70	Comprehensive Review on Various Gas Hydrate Modelling Techniques: Prospects and Challenges. Archives of Computational Methods in Engineering, 2022, 29, 2171-2207.	6.0	9
71	Dual-functional gas hydrate inhibition of tetramethylammonium chloride for carbon dioxide-methane mixed gas systems. Fuel, 2021, 305, 121598.	3.4	9
72	Inhibition Impact of Amino Acids on Swelling Clays: An Experimental and COSMO-RS Simulation Evaluation. Energy & Fuels, 2020, 34, 13985-14000.	2.5	8

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73	Density measurement of aqueous tetraethylammonium bromide and tetraethylammonium iodide solutions at different temperatures and concentrations. South African Journal of Chemical Engineering, 2020, 32, 62-67.	1.2	8
74	Gas Hydrate Inhibitors. Green Energy and Technology, 2020, , 27-46.	0.4	8
75	Effect of The natural Green Materials on Methane Hydrate Formation Kinetics. IOP Conference Series: Materials Science and Engineering, 2018, 458, 012074.	0.3	7
76	Tetraethylammonium Acetate and Tetraethylammonium Bromide-Based Deep Eutectic Solvents as Thermodynamic CO ₂ Gas Hydrate Inhibitors. Applied Sciences (Switzerland), 2020, 10, 6794.	1.3	7
77	Mini review on environmental issues concerning conventional gas hydrate inhibitors. Process Safety Progress, 0, , .	0.4	7
78	Experimental and modelling study of ammonium based ionic liquids in the absence and presence of methanol for CO ₂ hydrates. Journal of Molecular Liquids, 2022, 349, 118214.	2.3	6
79	Suitable Binary and Ternary Thermodynamic Conditions for Hydrate Mixtures of CH ₄ , CO ₂ , and C ₃ H ₈ for Gas Hydrate-Based Applications. ACS Omega, 2022, 7, 10877-10889.	1.6	6
80	Development of a Prediction Model for Gas Hydrate Formation in Multiphase Pipelines by Artificial Intelligence. Chemical Engineering and Technology, 2022, 45, 1482-1488.	0.9	6
81	Gas Hydrate Promoters. Green Energy and Technology, 2020, , 47-65.	0.4	4
82	Role of Ionic Liquid-Based Multipurpose Gas Hydrate and Corrosion Inhibitors in Gas Transmission Pipeline. Nanotechnology in the Life Sciences, 2020, , 221-244.	0.4	4
83	Rheological and Viscoelastic Property Characterizations of Amino Acid-Based Hydraulic Fracturing Fluids. Energy & Fuels, 2022, 36, 3539-3548.	2.5	4
84	Deep Eutectic solvents Applicability in Oil and Gas Processing fields for CO ₂ Control. Chemical Engineering and Technology, 0, , .	0.9	4
85	Experimental and simulation studies on the phase behaviour for gas hydrates in a CO ₂ rich gas dominant multiphase pipeline system. Canadian Journal of Chemical Engineering, 2022, 100, 3419-3427.	0.9	3
86	A comparison study on the performance between Tetramethylammonium chloride and Polyvinylpyrrolidone as drilling mud additives for gas hydrates. Materials Today: Proceedings, 2021, 47, 1258-1262.	0.9	2
87	Ionic Liquids Usage in Oil and Gas Industry. SpringerBriefs in Petroleum Geoscience & Engineering, 2021, , 1-16.	0.1	2
88	Toxicological issues of conventional gas hydrate inhibitors. Process Safety Progress, 0, , .	0.4	2
89	Phase identification of natural gas system with high CO ₂ content through simulation approach using Peng-Robinson model. IOP Conference Series: Materials Science and Engineering, 2018, 458, 012068.	0.3	1
90	The role of alloyed strontium in the microstructures and alkaline electrochemistry of Mg-Al-Sn alloys. RSC Advances, 2020, 10, 34387-34395.	1.7	1

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91	pH and electrical conductivity measurements of aqueous solutions of amino acid-based ionic. E3S Web of Conferences, 2021, 287, 02018.	0.2	1
92	Application of Ionic Liquids in Gas Hydrate Inhibition (GHI). SpringerBriefs in Petroleum Geoscience & Engineering, 2021, , 17-31.	0.1	1
93	Predictive ecotoxicological modeling of ionic liquids using QSAR techniques: A mini review. Process Safety Progress, 0, , .	0.4	1
94	Unusual CO2 hydrate formation in porous media: Implications on geo-CO2 storage laboratory testing methods. Materials Today: Proceedings, 2022, 57, 1363-1368.	0.9	1
95	Analytical Modelling of Gas Hydrates in Porous Media. , 2022, , .		1
96	Dual Function Hydrate Inhibitor for Prevention of Hydrate in Methane and Carbon Dioxide System. , 2020, , .		0
97	Pre-Screening of Ionic Liquids as Gas Hydrate Inhibitor via Application of COSMO-RS for Methane Hydrate. , 0, , .		0
98	Effect of Inulin on the Formation Kinetics of Methane Hydrate. Lecture Notes in Mechanical Engineering, 2021, , 389-397.	0.3	0