

# Cornelius Borecho Bavoh

## List of Publications by Year in descending order

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98  
papers

3,013  
citations

136950

32  
h-index

189892

50  
g-index

100  
all docs

100  
docs citations

100  
times ranked

992  
citing authors

#	ARTICLE	IF	CITATIONS
1	Comprehensive Review on Various Gas Hydrate Modelling Techniques: Prospects and Challenges. Archives of Computational Methods in Engineering, 2022, 29, 2171-2207.	10.2	9
2	Experimental and simulation studies on the phase behaviour for gas hydrates in a <math>\text{CO}_2</math> rich gas dominant multiphase pipeline system. Canadian Journal of Chemical Engineering, 2022, 100, 3419-3427.	1.7	3
3	Experimental and modelling study of ammonium based ionic liquids in the absence and presence of methanol for $\text{CO}_2$ hydrates. Journal of Molecular Liquids, 2022, 349, 118214.	4.9	6
4	Ionic liquids for the inhibition of gas hydrates. A review. Environmental Chemistry Letters, 2022, 20, 2165-2188.	16.2	17
5	Unusual $\text{CO}_2$ hydrate formation in porous media: Implications on geo- $\text{CO}_2$ storage laboratory testing methods. Materials Today: Proceedings, 2022, 57, 1363-1368.	1.8	1
6	Analytical Modelling of Gas Hydrates in Porous Media. , 2022, , .		1
7	Rheological and Viscoelastic Property Characterizations of Amino Acid-Based Hydraulic Fracturing Fluids. Energy & Fuels, 2022, 36, 3539-3548.	5.1	4
8	Suitable Binary and Ternary Thermodynamic Conditions for Hydrate Mixtures of $\text{CH}_4$ , $\text{CO}_2$ , and $\text{C}_3\text{H}_8$ for Gas Hydrate-Based Applications. ACS Omega, 2022, 7, 10877-10889.	3.5	6
9	Development of a Prediction Model for Gas Hydrate Formation in Multiphase Pipelines by Artificial Intelligence. Chemical Engineering and Technology, 2022, 45, 1482-1488.	1.5	6
10	Natural amino acids as potential swelling and dispersion inhibitors for montmorillonite-rich shale formations. Journal of Petroleum Science and Engineering, 2021, 196, 107664.	4.2	22
11	Investigation on Thermodynamic Equilibrium Conditions of Methane Hydrates in Multiphase Gas-Dominant Pipelines. ACS Omega, 2021, 6, 2505-2512.	3.5	10
12	Experimental and modeling studies on enhancing the thermodynamic hydrate inhibition performance of monoethylene glycol via synergistic green material. Scientific Reports, 2021, 11, 2396.	3.3	21
13	pH and electrical conductivity measurements of aqueous solutions of amino acid-based ionic. E3S Web of Conferences, 2021, 287, 02018.	0.5	1
14	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.	1.8	2
15	Towards a fundamental understanding of biopolymers and their role in gas hydrates: A review. Journal of Natural Gas Science and Engineering, 2021, 91, 103892.	4.4	23
16	Dual-functional gas hydrate inhibition of tetramethylammonium chloride for carbon dioxide-methane mixed gas systems. Fuel, 2021, 305, 121598.	6.4	9
17	Kinetic Behavior of Quaternary Ammonium Hydroxides in Mixed Methane and Carbon Dioxide Hydrates. Molecules, 2021, 26, 275.	3.8	11
18	Effect of Inulin on the Formation Kinetics of Methane Hydrate. Lecture Notes in Mechanical Engineering, 2021, , 389-397.	0.4	0

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19	Effect of brine on the kinetics of Carbon dioxide hydrate formation and dissociation in porous media. <i>Materials Today: Proceedings</i> , 2021, 47, 1366-1370.	1.8	10
20	Ionic Liquids Usage in Oil and Gas Industry. <i>SpringerBriefs in Petroleum Geoscience &amp; Engineering</i> , 2021, , 1-16.	0.3	2
21	Ionic Liquids as Gas Hydrate Thermodynamic Inhibitors. <i>Industrial &amp; Engineering Chemistry Research</i> , 2021, 60, 15835-15873.	3.7	22
22	Application of Ionic Liquids in Gas Hydrate Inhibition (GHI). <i>SpringerBriefs in Petroleum Geoscience &amp; Engineering</i> , 2021, , 17-31.	0.3	1
23	Research Advances, Maturation, and Challenges of Hydrate-Based CO <sub>2</sub> Sequestration in Porous Media. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 15075-15108.	6.7	31
24	Chemical Additives for Gas Hydrates. <i>Green Energy and Technology</i> , 2020, , .	0.6	35
25	Quaternary ammonium salts as thermodynamic hydrate inhibitors in the presence and absence of monoethylene glycol for methane hydrates. <i>Fuel</i> , 2020, 259, 116219.	6.4	37
26	Dual Function Hydrate Inhibitor for Prevention of Hydrate in Methane and Carbon Dioxide System. , 2020, , .		0
27	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.	4.4	35
28	Investigation on Gas Hydrates Formation and Dissociation in Multiphase Gas Dominant Transmission Pipelines. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 5052.	2.5	28
29	Rheology Impact of Various Hydrophilic-Hydrophobic Balance (HLB) Index Non-Ionic Surfactants on Cyclopentane Hydrates. <i>Molecules</i> , 2020, 25, 3725.	3.8	15
30	Phase behavior study on gas hydrates formation in gas dominant multiphase pipelines with crude oil and high CO <sub>2</sub> mixed gas. <i>Scientific Reports</i> , 2020, 10, 14748.	3.3	14
31	Inhibition Impact of Amino Acids on Swelling Clays: An Experimental and COSMO-RS Simulation Evaluation. <i>Energy &amp; Fuels</i> , 2020, 34, 13985-14000.	5.1	8
32	Tetraethylammonium Acetate and Tetraethylammonium Bromide-Based Deep Eutectic Solvents as Thermodynamic CO <sub>2</sub> Gas Hydrate Inhibitors. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 6794.	2.5	7
33	The role of alloyed strontium in the microstructures and alkaline electrochemistry of Mg <sub>5</sub> Al <sub>4</sub> Sn alloys. <i>RSC Advances</i> , 2020, 10, 34387-34395.	3.6	1
34	Density measurement of aqueous tetraethylammonium bromide and tetraethylammonium iodide solutions at different temperatures and concentrations. <i>South African Journal of Chemical Engineering</i> , 2020, 32, 62-67.	2.4	8
35	Methane hydrate phase behaviour in EMIM-Cl water based mud (WBM): An experimental and modelling study. <i>South African Journal of Chemical Engineering</i> , 2020, 34, 47-56.	2.4	12
36	Investigating the Potential Cuttings Transport Behavior of Ionic Liquids in Drilling Mud in the Presence of sll Hydrates. <i>Energy &amp; Fuels</i> , 2020, 34, 2903-2915.	5.1	24

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37	Assessing the Alkyl Chain Effect of Ammonium Hydroxides Ionic Liquids on the Kinetics of Pure Methane and Carbon Dioxide Hydrates. <i>Energies</i> , 2020, 13, 3272.	3.1	9
38	Gas Hydrate Inhibitors. <i>Green Energy and Technology</i> , 2020, , 27-46.	0.6	8
39	Gas Hydrate Promoters. <i>Green Energy and Technology</i> , 2020, , 47-65.	0.6	4
40	Gas Hydrate Models. <i>Green Energy and Technology</i> , 2020, , 67-85.	0.6	11
41	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.	4.4	38
42	Role of Ionic Liquid-Based Multipurpose Gas Hydrate and Corrosion Inhibitors in Gas Transmission Pipeline. <i>Nanotechnology in the Life Sciences</i> , 2020, , 221-244.	0.6	4
43	Kinematic Study of Methane Hydrate Formation and Self-Preservation in the Presence of Functionalized Carbon Nanotubes. <i>Energy &amp; Fuels</i> , 2019, 33, 7684-7695.	5.1	14
44	Thermodynamic and kinetic effect of biodegradable polymers on carbondioxide hydrates. <i>Journal of Industrial and Engineering Chemistry</i> , 2019, 79, 131-145.	5.8	28
45	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.	4.2	28
46	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.	4.9	38
47	A perspective on dual purpose gas hydrate and corrosion inhibitors for flow assurance. <i>Journal of Petroleum Science and Engineering</i> , 2019, 183, 106418.	4.2	75
48	A review on the role of amino acids in gas hydrate inhibition, CO <sub>2</sub> capture and sequestration, and natural gas storage. <i>Journal of Natural Gas Science and Engineering</i> , 2019, 64, 52-71.	4.4	153
49	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.	4.4	18
50	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.	4.9	46
51	Investigation of functionalized carbon nanotubes' performance on carbon dioxide hydrate formation. <i>Energy</i> , 2019, 174, 602-610.	8.8	43
52	Thermodynamic modelling on methane hydrate equilibrium condition in the presence of electrolyte inhibitor. <i>Materials Today: Proceedings</i> , 2019, 19, 1395-1402.	1.8	15
53	Tetramethyl ammonium chloride as dual functional inhibitor for methane and carbon dioxide hydrates. <i>Fuel</i> , 2019, 236, 251-263.	6.4	59
54	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.	4.9	49

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55	Ammonium hydroxide ILs as dual-functional gas hydrate inhibitors for binary mixed gas (carbon Tj ETQq1 1 0.784314 rgBT /Overlock	4.9	61
56	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.	4.9	62
57	Measurement and correlation of the physical properties of aqueous solutions of ammonium based ionic liquids. Journal of Molecular Liquids, 2018, 253, 250-258.	4.9	23
58	The impact of amino acids on methane hydrate phase boundary and formation kinetics. Journal of Chemical Thermodynamics, 2018, 117, 48-53.	2.0	97
59	Mean induction time and isothermal kinetic analysis of methane hydrate formation in water and imidazolium based ionic liquid solutions. Journal of Chemical Thermodynamics, 2018, 117, 147-154.	2.0	49
60	Combined Inhibition Effect of 1-Ethyl-3-methylimidazolium Chloride + Glycine on Methane Hydrate. Journal of Physics: Conference Series, 2018, 1123, 012060.	0.4	29
61	Effect of The natural Green Materials on Methane Hydrate Formation Kinetics. IOP Conference Series: Materials Science and Engineering, 2018, 458, 012074.	0.6	7
62	Experimental Equipment Validation for Methane (CH <sub>4</sub> ) and Carbon Dioxide (CO <sub>2</sub> ) Hydrates. IOP Conference Series: Materials Science and Engineering, 2018, 344, 012025.	0.6	15
63	Phase identification of natural gas system with high CO <sub>2</sub> content through simulation approach using Peng-Robinson model. IOP Conference Series: Materials Science and Engineering, 2018, 458, 012068.	0.6	1
64	Investigating the effect of silver nanoparticles on carbon dioxide hydrates formation. IOP Conference Series: Materials Science and Engineering, 2018, 458, 012058.	0.6	12
65	New methane hydrate phase boundary data in the presence of aqueous amino acids. Fluid Phase Equilibria, 2018, 478, 129-133.	2.5	60
66	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.	4.4	127
67	Experimental evaluation and thermodynamic modelling of AILs alkyl chain elongation on methane riched gas hydrate system. Fluid Phase Equilibria, 2018, 473, 300-309.	2.5	38
68	Investigation of the task oriented dual function inhibitors in gas hydrate inhibition: A review. Fluid Phase Equilibria, 2018, 477, 40-57.	2.5	47
69	Experimental and modelling studies on thermodynamic methane hydrate inhibition in the presence of ionic liquids. Journal of Molecular Liquids, 2018, 249, 886-891.	4.9	68
70	Influence of tetramethylammonium hydroxide on methane and carbon dioxide gas hydrate phase equilibrium conditions. Fluid Phase Equilibria, 2017, 440, 1-8.	2.5	103
71	Thermodynamic effect of ammonium based ionic liquids on CO <sub>2</sub> hydrates phase boundary. Journal of Molecular Liquids, 2017, 238, 533-539.	4.9	108
72	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.	4.4	110

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73	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.	2.5	31
74	Insight into ionic liquid as potential drilling mud additive for high temperature wells. <i>Journal of Molecular Liquids</i> , 2017, 242, 931-939.	4.9	65
75	Inhibition effect of amino acids on carbon dioxide hydrate. <i>Chemical Engineering Science</i> , 2017, 171, 331-339.	3.8	105
76	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
77	COSMO-RS: An ionic liquid prescreening tool for gas hydrate mitigation. <i>Chinese Journal of Chemical Engineering</i> , 2016, 24, 1619-1624.	3.5	66
78	Experimental Evaluation of a Novel Thermodynamic Inhibitor for CH <sub>4</sub> and CO <sub>2</sub> Hydrates. <i>Procedia Engineering</i> , 2016, 148, 932-940.	1.2	53
79	Physical-chemical Properties of Aqueous TBAOH Solution for Gas Hydrates Promotion. <i>Procedia Engineering</i> , 2016, 148, 1351-1356.	1.2	24
80	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
81	Selected physical properties of aqueous potassium salt of l-phenylalanine as a solvent for CO <sub>2</sub> capture. <i>Chemical Engineering Research and Design</i> , 2016, 113, 169-181.	5.6	40
82	Synergic Kinetic Inhibition Effect of EMIM-Cl + PVP on CO <sub>2</sub> Hydrate Formation. <i>Procedia Engineering</i> , 2016, 148, 1232-1238.	1.2	51
83	Impact of acetone on phase boundary of methane and carbon dioxide mixed hydrates. <i>Fluid Phase Equilibria</i> , 2016, 412, 51-56.	2.5	40
84	Green silica scale inhibitors for Alkaline-Surfactant-Polymer flooding: a review. <i>Journal of Petroleum Exploration and Production</i> , 2016, 6, 379-385.	2.4	20
85	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.	3.0	26
86	Experimental investigation on the dissociation conditions of methane hydrate in the presence of imidazolium-based ionic liquids. <i>Journal of Chemical Thermodynamics</i> , 2015, 84, 7-13.	2.0	118
87	Hydrate Dissociation Condition Measurement of CO <sub>2</sub> -Rich Mixed Gas in the Presence of Methanol/Ethylene Glycol and Mixed Methanol/Ethylene Glycol + Electrolyte Aqueous Solution. <i>Journal of Chemical &amp; Engineering Data</i> , 2014, 59, 3920-3926.	1.9	33
88	Volumetric studies to examine the interactions of imidazolium based ionic liquids with water by means of density and speed of sound measurements. <i>Journal of Chemical Thermodynamics</i> , 2012, 54, 142-147.	2.0	55
89	Study of 1-(2-Hydroxyethyl) 3-methylimidazolium Halide as Thermodynamic Inhibitors. <i>Applied Mechanics and Materials</i> , 0, 625, 337-340.	0.2	33
90	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.	0.6	19

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91	Application of Electrolyte Based Model on Ionic Liquids-Methane Hydrates Phase Boundary. IOP Conference Series: Materials Science and Engineering, 0, 458, 012073.	0.6	9
92	Semi-clathratic impact of tetrabutylammonium hydroxide on the carbon dioxide hydrates. IOP Conference Series: Materials Science and Engineering, 0, 458, 012060.	0.6	13
93	Kinetic Assessment of Tetramethyl Ammonium Hydroxide (Ionic Liquid) for Carbon Dioxide, Methane and Binary Mix Gas Hydrates. , 0, , .		15
94	Pre-Screening of Ionic Liquids as Gas Hydrate Inhibitor via Application of COSMO-RS for Methane Hydrate. , 0, , .		0
95	Predictive ecotoxicological modeling of ionic liquids using QSAR techniques: A mini review. Process Safety Progress, 0, , .	1.0	1
96	Mini review on environmental issues concerning conventional gas hydrate inhibitors. Process Safety Progress, 0, , .	1.0	7
97	Toxicological issues of conventional gas hydrate inhibitors. Process Safety Progress, 0, , .	1.0	2
98	Deep Eutectic solvents Applicability in Oil and Gas Processing fields for CO <sub>2</sub> Control. Chemical Engineering and Technology, 0, , .	1.5	4