Ian D Gates

List of Publications by Year
in descending order

186 papers	5,147 citations	94433 37 h-index	118850 62 g-index
187 all docs	187 docs citations	187 times ranked	3458 citing authors

#	Article	IF	Citations
1	Electrochemical ammonia synthesis via nitrate reduction on Fe single atom catalyst. Nature Communications, 2021, 12, 2870.	12.8	605
2	A support vector machine algorithm to classify lithofacies and model permeability in heterogeneous reservoirs. Engineering Geology, 2010, 114, 267-277.	6.3	180
3	Can sustainable ammonia synthesis pathways compete with fossil-fuel based Haberâ€"Bosch processes?. Energy and Environmental Science, 2021, 14, 2535-2548.	30.8	162
4	Energy efficiency and emissions intensity of SAGD. Fuel, 2014, 115, 706-713.	6.4	135
5	Mass Transfer Limitations in Embryoid Bodies during Human Embryonic Stem Cell Differentiation. Cells Tissues Organs, 2012, 196, 34-47.	2.3	129
6	Support vector regression for porosity prediction in a heterogeneous reservoir: A comparative study. Computers and Geosciences, 2010, 36, 1494-1503.	4.2	127
7	Thermal recovery strategies for thin heavy oil reservoirs. Fuel, 2014, 117, 431-441.	6.4	118
8	A review of pyrolysis, aquathermolysis, and oxidation of Athabasca bitumen. Fuel Processing Technology, 2015, 131, 270-289.	7.2	112
9	On the Capability of Support Vector Machines to Classify Lithology from Well Logs. Natural Resources Research, 2010, 19, 125-139.	4.7	86
10	Oil phase viscosity behaviour in Expanding-Solvent Steam-Assisted Gravity Drainage. Journal of Petroleum Science and Engineering, 2007, 59, 123-134.	4.2	85
11	Optimized solvent-aided steam-flooding strategy for recovery of thin heavy oil reservoirs. Fuel, 2013, 112, 50-59.	6.4	77
12	A new reaction model for low temperature oxidation of heavy oil: Experiments and numerical modeling. Energy, 2014, 64, 419-428.	8.8	68
13	On naphthenic acids removal from crude oil and oil sands process-affected water. Fuel, 2019, 253, 1229-1246.	6.4	67
14	Steam Injection Strategy and Energetics of Steam-Assisted Gravity Drainage. SPE Reservoir Evaluation and Engineering, 2007, 10, 19-34.	1.8	66
15	Solvent-aided Steam-Assisted Gravity Drainage in thin oil sand reservoirs. Journal of Petroleum Science and Engineering, 2010, 74, 138-146.	4.2	65
16	Orbital graph convolutional neural network for material property prediction. Physical Review Materials, 2020, 4, .	2.4	64
17	Convection at the Edge of a Steam-Assisted-Gravity-Drainage Steam Chamber. SPE Journal, 2011, 16, 503-512.	3.1	63
18	Practical process design for in situ gasification of bitumen. Applied Energy, 2013, 107, 281-296.	10.1	63

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19	Low-temperature oxidation of Lloydminster heavy oil: Kinetic study and product sequence estimation. Fuel, 2014, 115, 534-538.	6.4	62
20	Theoretical study on double-atom catalysts supported with graphene for electroreduction of nitrogen into ammonia. Electrochimica Acta, 2020, 335, 135667.	5.2	62
21	Potential for hydrogen generation from in situ combustion of Athabasca bitumen. Fuel, 2011, 90, 2254-2265.	6.4	60
22	Co-immobilization of cellulase and lysozyme on amino-functionalized magnetic nanoparticles: An activity-tunable biocatalyst for extraction of lipids from microalgae. Bioresource Technology, 2018, 263, 317-324.	9.6	60
23	Combustion Kinetics of Athabasca Bitumen from 1D Combustion Tube Experiments. Natural Resources Research, 2009, 18, 193-211.	4.7	58
24	Rational Design of Coordination Bond Connected Metal Organic Frameworks/MXene Hybrids for Efficient Solar Water Splitting. Advanced Functional Materials, 2022, 32, .	14.9	56
25	Geometric structures, electronic characteristics, stabilities, catalytic activities, and descriptors of graphene-based single-atom catalysts. Nano Materials Science, 2020, 2, 120-131.	8.8	55
26	On multistage hydraulic fracturing in tight gas reservoirs: Montney Formation, Alberta, Canada. Journal of Petroleum Science and Engineering, 2019, 174, 1127-1141.	4.2	53
27	Ultrastretchable, Adhesive, and Antibacterial Hydrogel with Robust Spinnability for Manufacturing Strong Hydrogel Micro/Nanofibers. Small, 2021, 17, e2103521.	10.0	52
28	Nanoparticle localization in blood vessels: dependence on fluid shear stress, flow disturbances, and flow-induced changes in endothelial physiology. Nanoscale, 2018, 10, 15249-15261.	5.6	50
29	Steam fingering at the edge of a steam chamber in a heavy oil reservoir. Canadian Journal of Chemical Engineering, 2008, 86, 1011-1022.	1.7	49
30	On the physics of cyclic steam stimulation. Energy, 2016, 115, 969-985.	8.8	48
31	A new reaction model for aquathermolysis of Athabasca bitumen. Canadian Journal of Chemical Engineering, 2013, 91, 475-482.	1.7	47
32	Design of Hybrid Steam-In Situ Combustion Bitumen Recovery Processes. Natural Resources Research, 2009, 18, 213-233.	4.7	46
33	The effect of coordination environment on the kinetic and thermodynamic stability of single-atom iron catalysts. Physical Chemistry Chemical Physics, 2020, 22, 3983-3989.	2.8	45
34	On the Impact of Permeability Heterogeneity on SAGD Steam Chamber Growth. Natural Resources Research, 2010, 19, 151-164.	4.7	42
35	Reactions of hydroxyl radicals with benzoic acid and benzoate. RSC Advances, 2017, 7, 35776-35785.	3.6	41
36	A Sulfur‐Tolerant MOF‐Based Single‐Atom Fe Catalyst for Efficient Oxidation of NO and Hg^0. Advanced Materials, 2022, 34, e2110123.	21.0	40

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37	Support-Vector Regression for Permeability Prediction in a Heterogeneous Reservoir: A Comparative Study. SPE Reservoir Evaluation and Engineering, 2010, 13, 485-495.	1.8	38
38	Impact of steam trap control on performance of steam-assisted gravity drainage. Journal of Petroleum Science and Engineering, 2010, 75, 215-222.	4.2	37
39	Detailed Study of Low-Temperature Oxidation of an Alaska Heavy Oil. Energy & Fuels, 2012, 26, 1592-1597.	5.1	37
40	New thermal-reactive reservoir engineering model predicts hydrogen sulfide generation in Steam Assisted Gravity Drainage. Journal of Petroleum Science and Engineering, 2012, 94-95, 100-111.	4.2	37
41	Interfacial Stability of In-Situ Bitumen Thermal Solvent Recovery Processes. SPE Journal, 2011, 16, 55-64.	3.1	36
42	Multiphase flow at the edge of a steam chamber. Canadian Journal of Chemical Engineering, 2010, 88, 312-321.	1.7	34
43	SAGD well orientation in point bar oil sand deposit affects performance. Engineering Geology, 2013, 157, 79-92.	6.3	34
44	On methane emissions from shale gas development. Energy, 2018, 152, 594-600.	8.8	32
45	Prediction of steam-assisted gravity drainage steam to oil ratio from reservoir characteristics. Energy, 2015, 93, 1663-1670.	8.8	31
46	CO_2-based heavy oil recovery processes for post-CHOPS reservoirs. Journal of CO2 Utilization, 2017, 19, 238-246.	6.8	31
47	Methane activation by a single iron atom supported on graphene: Impact of substrates. Molecular Catalysis, 2019, 469, 40-47.	2.0	31
48	Kinetic Studies of a Novel CO_2 Gasification Method Using Coal from Deep Unmineable Seams. Industrial & Engineering Chemistry Research, 2013, 52, 14787-14797.	3.7	30
49	Understanding the Convection Heat-Transfer Mechanism in the Steam-Assisted-Gravity-Drainage Process. SPE Journal, 2013, 18, 1202-1216.	3.1	30
50	On hot water flooding strategies for thin heavy oil reservoirs. Fuel, 2015, 153, 559-568.	6.4	30
51	Study of conformance control in oil sands by oil-in-water emulsion injection using heterogeneous parallel-sandpack models. Fuel, 2019, 244, 335-351.	6.4	30
52	Electrophilic oxygen on defect-rich carbon nanotubes for selective oxidation of cyclohexane. Catalysis Science and Technology, 2020, 10, 332-336.	4.1	30
53	SAGD Subcool Control with Smart Injection Wells. , 2009, , .		28
54	Unconventional Heavy Oil Growth and Global Greenhouse Gas Emissions. Environmental Science & Technology, 2015, 49, 8824-8832.	10.0	28

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55	Development of a multiscale microbial kinetics coupled gas transport model for the simulation of biogenic coalbed methane production. Fuel, 2016, 167, 188-198.	6.4	28
56	Stability of the edge of a SAGD steam chamber in a bitumen reservoir. Chemical Engineering Science, 2011, 66, 1802-1809.	3.8	27
57	A new kinetic model for pyrolysis of Athabasca bitumen. Canadian Journal of Chemical Engineering, 2013, 91, 889-901.	1.7	27
58	Theoretical prediction of graphene-based single-atom iron as a novel catalyst for catalytic oxidation of Hg0 by O2. Applied Surface Science, 2020, 508, 145035.	6.1	27
59	A Basis for Automated Control of Steam Trap Subcool in SAGD. SPE Journal, 2012, 17, 680-686.	3.1	26
60	Reservoir Simulation of Steam Fracturing in Early-Cycle Cyclic Steam Stimulation. SPE Reservoir Evaluation and Engineering, 2012, 15, 676-687.	1.8	26
61	Modelling of Cold Heavy Oil Production with Sand (CHOPS) using a fluidized sand algorithm. Fuel, 2015, 158, 937-947.	6.4	26
62	Molecular interactions between 1-butyl-3-methylimidazolium tetrafluoroborate and model naphthenic acids: A DFT study. Journal of Molecular Liquids, 2017, 243, 462-471.	4.9	26
63	Non-condensable gas Co-Injection with steam for oil sands recovery. Energy, 2019, 179, 736-746.	8.8	26
64	High throughput screening of promising lead-free inorganic halide double perovskites <i>via</i> first-principles calculations. Physical Chemistry Chemical Physics, 2022, 24, 3460-3469.	2.8	26
65	2D and 3D Metal–Organic Framework at the Oil/Water Interface: A Case Study of Copper Benzenedicarboxylate. Advanced Materials Interfaces, 2019, 6, 1801139.	3.7	25
66	Detailed analysis of Toe-to-Heel Air Injection for heavy oil production. Journal of Petroleum Science and Engineering, 2020, 186, 106704.	4.2	25
67	Effects of molecular polarity on the adsorption and desorption behavior of asphaltene model compounds on silica surfaces. Fuel, 2021, 284, 118990.	6.4	25
68	Apparent Contact Angle around the Periphery of a Liquid Drop on Roughened Surfaces. Scientific Reports, 2020, 10, 8220.	3.3	24
69	Non–Newtonian rheology in suspension cell cultures significantly impacts bioreactor shear stress quantification. Biotechnology and Bioengineering, 2018, 115, 2101-2113.	3.3	23
70	A new kinetic model for non-equilibrium dissolved gas ex-solution from static heavy oil. Fuel, 2017, 204, 12-22.	6.4	21
71	Using computational fluid dynamics (CFD) modeling to understand murine embryonic stem cell aggregate size and pluripotency distributions in stirred suspension bioreactors. Journal of Biotechnology, 2019, 304, 16-27.	3.8	21
72	Steam-Solvent Coupling at the Chamber Edge in an In Situ Bitumen Recovery Process. , 2010, , .		20

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73	Impact of intraformational water zones on SAGD performance. Journal of Petroleum Science and Engineering, 2012, 82-83, 187-197.	4.2	20
74	Orientation of a pad of SAGD well pairs in an Athabasca point bar deposit affects performance. Marine and Petroleum Geology, 2014, 54, 37-46.	3.3	20
75	Modeling geomechanical properties in the montney formation, Alberta, Canada. International Journal of Rock Mechanics and Minings Sciences, 2017, 96, 94-105.	5.8	20
76	Identification of Nanocellulose Retention Characteristics in Porous Media. Nanomaterials, 2018, 8, 547.	4.1	20
77	Thermal oil recovery from fractured reservoirs: Energy and emissions intensities. Energy, 2018, 155, 29-34.	8.8	19
78	Steam Injection Strategy and Energetics of Steam-Assisted Gravity Drainage. , 2005, , .		18
79	Innovative Data-Driven Permeability Prediction in a Heterogeneous Reservoir. , 2009, , .		18
80	New gas material balance to quantify biogenic gas generation rates from shallow organic-matter-rich shales. Fuel, 2013, 104, 443-451.	6.4	18
81	Impact of biofilm on bacterial transport and deposition in porous media. Journal of Contaminant Hydrology, 2015, 183, 109-120.	3.3	18
82	Dual Stimuli-Responsive Pickering Emulsions from Novel Magnetic Hydroxyapatite Nanoparticles and Their Characterization Using a Microfluidic Platform. Langmuir, 2021, 37, 1353-1364.	3.5	18
83	Three‐In‐One Alkylamine‐Tuned MoO_x for Lab‐Scale to Real‐Life Aqueous Supercapacitors. Advanced Functional Materials, 2022, 32, .	14.9	18
84	On the adsorption of elemental mercury on single-atom TM (TM=V, Cr, Mn, Co) decorated graphene substrates. Applied Surface Science, 2020, 516, 146037.	6.1	17
85	Using bacterial bioluminescence to evaluate the impact of biofilm on porous media hydraulic properties. Journal of Microbiological Methods, 2015, 109, 84-92.	1.6	16
86	CO2 adsorption and dissociation on single and double iron atomic molybdenum disulfide catalysts: A DFT study. Fuel, 2021, 305, 121547.	6.4	16
87	A novel Fe-Co double-atom catalyst with high low-temperature activity and strong water-resistant for O3 decomposition: A theoretical exploration. Journal of Hazardous Materials, 2022, 421, 126639.	12.4	16
88	Impact of Different SAGD Well Configurations (Dover SAGD Phase B Case Study). Journal of Canadian Petroleum Technology, 2012, 51, 32-45.	2.3	15
89	Effect of gap and flow orientation on two-phase flow in an oil-wet gap: Relative permeability curves and flow structures. International Journal of Multiphase Flow, 2013, 57, 78-87.	3.4	15
90	An evaluation of enhanced oil recovery strategies for a heavy oil reservoir after cold production with sand. International Journal of Energy Research, 2015, 39, 1355-1365.	4.5	15

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91	A machine learning model for predicting multi-stage horizontal well production. Journal of Petroleum Science and Engineering, 2021, 198, 108133.	4.2	15
92	Bitumen and asphaltene derived nanoporous carbon and nickel oxide/carbon composites for supercapacitor electrodes. Scientific Reports, 2022, 12, 4095.	3.3	15
93	Reducing the Energy and Steam Consumption of SAGD Through Cyclic Solvent Co-Injection. Energies, 2019, 12, 3860.	3.1	14
94	Hydrodynamic analysis of nanofluid's convective heat transfer in channels with extended surfaces. Physics of Fluids, 2021, 33, .	4.0	14
95	Potential for Hydrogen Generation during In Situ Combustion of Bitumen. , 2009, , .		13
96	Reactive Thermal Reservoir Simulation: Hydrogen Sulphide Production in SAGD. , 2011, , .		13
97	A Comprehensive Kinetic Theory to Model Thermolysis, Aquathermolysis, Gasification, Combustion, and Oxidation of Athabasca Bitumen. , 2010, , .		12
98	On SAGD in Oil Sands Reservoirs With No Caprock and Top Water Zone. Journal of Canadian Petroleum Technology, 2011, 50, 21-33.	2.3	12
99	On the Stability of the Edge of a Steam-Assisted-Gravity-Drainage Steam Chamber. SPE Journal, 2014, 19, 280-288.	3.1	12
100	Steam injection gravity drainage as a follow-up process for cyclic steam stimulation. Journal of Petroleum Science and Engineering, 2017, 153, 268-282.	4.2	12
101	The application of supervised machine learning techniques for multivariate modelling of gas component viscosity: A comparative study. Fuel, 2021, 285, 119146.	6.4	12
102	An analysis of toe-to-heel air injection for heavy oil production using machine learning. Journal of Petroleum Science and Engineering, 2021, 197, 108109.	4.2	12
103	Real time monitoring of biofilm development under flow conditions in porous media. Biofouling, 2012, 28, 937-951.	2.2	11
104	Comparison of Electronic and Physicochemical Properties between Imidazolium-Based and Pyridinium-Based Ionic Liquids. Journal of Physical Chemistry B, 2018, 122, 6771-6780.	2.6	11
105	Lipase-Immobilized Cellulosic Capsules with Water Absorbency for Enhanced Pickering Interfacial Biocatalysis. Langmuir, 2021, 37, 810-819.	3.5	11
106	Time scales for steam injection and bitumen production in steam-assisted gravity drainage. Energy, 2021, 227, 120430.	8.8	11
107	Evaluation of energy extraction from a geothermal resource in central Alberta, Canada using different well configurations. Geothermics, 2021, 96, 102222.	3.4	11
108	Impact of Oil-Water Relative Permeability Curves on SAGD Behaviour. , 2010, , .		10

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109	A new approach to model the spatiotemporal development of biofilm phase in porous media. Environmental Microbiology, 2011, 13, 3010-3023.	3.8	10
110	Model-Predictive-Control (MPC) of Steam Trap Subcool in Steam-Assisted Gravity Drainage (SAGD). IFAC-PapersOnLine, 2015, 48, 539-544.	0.9	10
111	A simple dilation-recompaction model for hydraulic fracturing. Journal of Unconventional Oil and Gas Resources, 2016, 16, 62-75.	3.5	10
112	Pad-scale control improves SAGD performance. Petroleum, 2018, 4, 318-328.	2.8	10
113	On the Relationship between Completion Design, Reservoir Characteristics, and Steam Conformance Achieved in Steam-based Recovery Processes such as SAGD. , 2010, , .		9
114	Evolution of In Situ Oil Sands Recovery Technology: What Happened and What's New?. , 2011, , .		9
115	Kinetic Models for Low Temperature Oxidation Subranges based on Reaction Products. , 2013, , .		9
116	Interactions of Biodegradable Ionic Liquids with a Model Naphthenic Acid. Scientific Reports, 2018, 8, 176.	3.3	9
117	Instilling innovation and entrepreneurship in engineering graduate students: Observations at the University of Calgary. Canadian Journal of Chemical Engineering, 2021, 99, 2195-2204.	1.7	9
118	Determination of stimulated reservoir volume and anisotropic permeability using analytical modelling of microseismic and hydraulic fracturing parameters. Journal of Natural Gas Science and Engineering, 2018, 58, 234-240.	4.4	8
119	Kinetic Modeling of Ozone Decomposition and Peroxone Oxidation of Toluene in an Aqueous Phase Using <i>ab Initio</i> Calculations. Industrial & Engineering Chemistry Research, 2019, 58, 22934-22941.	3.7	8
120	Mechanism study on CO2 reforming of methane over platinum cluster doped graphene: A DFT calculation. Molecular Catalysis, 2020, 497, 111205.	2.0	8
121	Heteroatom-Doped Transition Metal Nitrides for CO Electrochemical Reduction: A Density Functional Theory Screening Study. Journal of Physical Chemistry C, 2020, 124, 26344-26351.	3.1	8
122	Effect of cellulose nanocrystal nanofluid on displacement of oil in a Hele-Shaw cell. Journal of Petroleum Science and Engineering, 2021, 196, 108068.	4.2	8
123	Cause-effect chains in S-LCA based on DPSIR framework using Markov healthcare model: an application to "working hours" in Canada. International Journal of Life Cycle Assessment, 2021, 26, 936-949.	4.7	8
124	On the ratio of energy produced to energy injected in SAGD: Long-term consequences of early stage operational decisions. Journal of Petroleum Science and Engineering, 2021, 199, 108271.	4.2	8
125	Exploring the Effects of Ionic Defects on the Stability of CsPbI₃ with a Deep Learning Potential. ChemPhysChem, 2022, 23, e202100841.	2.1	8
126	A descriptor for the structural stability of organic–inorganic hybrid perovskites based on binding mechanism in electronic structure. Journal of Molecular Modeling, 2022, 28, 80.	1.8	8

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127	Effect of Fracture and Flow Orientation on Two-Phase Flow in an Oil-Wet Fracture: Relative Permeability Curves and Flow Structures. , 2010, , .		7
128	The velocity and shape of convected elongated liquid drops in narrow gaps. Journal of Petroleum Science and Engineering, 2010, 72, 67-77.	4.2	7
129	A New Thermogeomechanical Theory for Gravity Drainage in Steam-Assisted Gravity Drainage. SPE Journal, 2013, 18, 736-742.	3.1	7
130	On fingering of steam chambers in steam€assisted heavy oil recovery. AICHE Journal, 2016, 62, 1364-1381.	3.6	7
131	On the fluid mechanics of slotted liners in horizontal wells. Chemical Engineering Science, 2017, 164, 23-33.	3.8	7
132	A Sensing and Computational Framework for Estimating the Seismic Velocities of Rocks Interacting With the Drill Bit. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 3178-3189.	6.3	7
133	Real-time steam allocation workflow using machine learning for digital heavy oil reservoirs. Journal of Petroleum Science and Engineering, 2021, 199, 108168.	4.2	7
134	Design of (C3N2H5)(1-)Cs PbI3 as a novel hybrid perovskite with strong stability and excellent photoelectric performance: A theoretical prediction. Solar Energy Materials and Solar Cells, 2021, 233, 111401.	6.2	7
135	Why is it so difficult to replace diesel in Nunavut, Canada?. Renewable and Sustainable Energy Reviews, 2022, 157, 112030.	16.4	7
136	Automated Global Optimization of Commercial SAGD Operations. , 2006, , .		6
137	On in situ hydrogen sulfide evolution and catalytic scavenging in steam-based oil sands recovery processes. Energy, 2014, 64, 1035-1043.	8.8	6
138	Modeling solvent enhanced gravity drainage from a single matrix block in fractured oil reservoirs. Journal of Petroleum Science and Engineering, 2017, 152, 555-563.	4.2	6
139	Cleaner production from Steam-Assisted Gravity Drainage using seismic-based automated control. Journal of Cleaner Production, 2019, 209, 1139-1151.	9.3	6
140	Methane activation on dual-atom catalysts supported on graphene. Chemical Communications, 2021, 57, 12127-12130.	4.1	6
141	Rich solvent - Steam assisted gravity drainage (RS-SAGD): An option for clean oil sands recovery processes. Cleaner Engineering and Technology, 2022, 8, 100463.	4.0	6
142	Experimental Study of Heavy Oil-Water Flow Structure Effects on Relative Permeabilities in a Fracture Filled with Heavy Oil. , 2008, , .		5
143	Impact of Flow Control Devices on SAGD Performance from Less Heterogeneous to Strongly Heterogeneous Reservoirs. , 2015, , .		5
144	Real€time multivariable model predictive control for steam€assisted gravity drainage. AICHE Journal, 2018, 64, 3034-3041.	3.6	5

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145	Novel insights on the impact of top water on Steam-Assisted Gravity Drainage in a point bar reservoir. International Journal of Energy Research, 2018, 42, 616-632.	4.5	5
146	Conformance Control for SAGD Using Oil-in-Water Emulsions in Heterogeneous Oil Sands Reservoirs. , 2019, , .		5
147	Integrated approach for fracture characterization of hydraulically stimulated volume in tight gas reservoir. Journal of Petroleum Exploration and Production, 2019, 9, 2429-2440.	2.4	5
148	Thermal Viscous Fingering in Thermal Recovery Processes. Energies, 2020, 13, 4986.	3.1	5
149	Exploration of in-situ formed MoSx catalyst for co-hydrodeoxygenation of sawdust and vacuum gas oil in pilot-scale plant. Applied Catalysis B: Environmental, 2021, 297, 120499.	20.2	5
150	Lag times in toe-to-heel air injection (THAI) operations explain underlying heavy oil production mechanisms. Petroleum Science, 2022, 19, 1165-1173.	4.9	5
151	Methodological framework to find links between life cycle sustainability assessment categories and the UN Sustainable Development Goals based on literature. Journal of Industrial Ecology, 2023, 27, 707-725.	5.5	5
152	Interfacial Stability and Displacement Efficiency in Thermal Solvent Processes. , 2010, , .		4
153	An in-situ process to consolidate oil sands mine tailings. Journal of Environmental Chemical Engineering, 2018, 6, 3295-3305.	6.7	4
154	Predictive Modeling of Energy and Emissions from Shale Gas Development. Environmental Science & Technology, 2018, 52, 14547-14555.	10.0	4
155	A working method for estimating dynamic shear velocity in the montney formation. MethodsX, 2019, 6, 1876-1893.	1.6	4
156	Release of sugars and fatty acids from heavy oil biodegradation by common hydrolytic enzymes. Scientific Reports, 2019, 9, 15584.	3.3	4
157	Advanced sensing and imaging for efficient energy exploration in complex reservoirs. Energy Reports, 2020, 6, 3104-3118.	5.1	4
158	Fracturing Gels as Analogs to Understand Fracture Behavior in Shale Gas Reservoirs. Rock Mechanics and Rock Engineering, 2020, 53, 4345-4355.	5.4	4
159	22. The Impact of Oil Viscosity Heterogeneity on Production from Heavy Oil and Bitumen Reservoirs: Geotailoring Recovery Processes to Compositionally Graded Reservoirs. , 2010, , 265-273.		4
160	Carbon intensity of in-situ oil sands operations with direct contact steam generation lower than that of once-through steam generation. Journal of Cleaner Production, 2022, 367, 133046.	9.3	4
161	Reservoir Simulation of Steam Fracturing in Early Cycle Cyclic Steam Stimulation. , 2010, , .		3
162	Assessment of reservoir heterogeneity by using produced water chemistry in SAGD. International Journal of Energy Research, 2016, 40, 1367-1380.	4.5	3

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163	Insights on Heat Transfer at the Top of Steam Chambers in SAGD. Journal of Heat Transfer, 2017, 139, .	2.1	3
164	Microemulsion phase formation at oil–cellulose microcrystal suspension interfaces. Cellulose, 2018, 25, 1625-1636.	4.9	3
165	Computational Study on the Absorption Mechanisms of SO_2 by Ionic Liquids. ChemistrySelect, 2018, 3, 4330-4338.	1.5	3
166	Identifying Reservoir Features via iSOR Response Behaviour. Energies, 2021, 14, 427.	3.1	3
167	Preconditioning Methods to Improve SAGD Performance in Heavy Oil and Bitumen Reservoirs with Variable Oil Phase Viscosity. , 2008, , .		2
168	Design and Optimization of Hybrid Ex Situ / In Situ Steam Generation Recovery Processes for Heavy Oil and Bitumen. , 2008, , .		2
169	Monitoring of SAGD Steam-Chamber Conformance by Using White-Noise-Reflection Processes. SPE Journal, 2012, 17, 1246-1254.	3.1	2
170	Phased Heating and Solvent Injection to Enhance Recovery of Heavy Oil and Bitumen. , 2016, , .		2
171	A Facile Strategy to Prepare Small Water Clusters via Interacting with Functional Molecules. International Journal of Molecular Sciences, 2021, 22, 8250.	4.1	2
172	Solvent-aided Steam-flooding Strategy Optimization in Thin Heavy Oil Reservoirs. , 2013, , .		2
173	Policy Insights to Accelerate Cleaner Steam-Assisted Gravity Drainage Operations. Energies, 2022, 15, 86.	3.1	2
174	Simulation Analysis of Steam-Based EOR Using MultiObjects Grosmont Models. , 2013, , .		1
175	Smart Pad Reservoir Production Machine for Oil Sands SAGD Operations. , 2013, , .		1
176	Stochastic proxy modelling for coalbed methane production using orthogonal polynomialsˆ—âˆ—Corresponding author, email:vprasad@ualberta.ca. Financial support from Carbon Management Canada and the Natural Sciences and Engineering Research Council of Canada is gratefully acknowledged.. IFAC-PapersOnLine, 2015, 48, 88-93.	0.9	1
177	Instability of parallel flow of two immiscible liquids in a pore and application to steam€assisted gravity drainage. Canadian Journal of Chemical Engineering, 0, , .	1.7	1
178	Image Analysis Method for Evaluating Heterogeneous Growth and Differentiation of Embryonic Stem Cell Cultures. ACS Symposium Series, 2013, , 165-181.	0.5	0
179	Innovation, Motivation, and Fear: A Novel Perspective for Unconventional Oil. , 2013, , .		0
180	SAGD Pad Performance in an Ultra-Defined Athabasca Point Bar Deposit. , 2013, , .		0

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181	Optimization of a Vertical-Horizontal Heavy Oil Thermal Operation by using Automated Field-scale Control. , 2013, , .		0
182	Drained/Undrained Zones Boundary in Steam-Assisted Gravity Drainage Process. , 2015, , .		0
183	On the Performance of SAGD in Athabasca Point Bar Deposit Reservoir With Top Water. , 2016, , .		0
184	Unveiling the Causes of Fingering in Steam-Assisted Heavy Oil Recovery - Linear Instability Analysis and Numerical Simulation. , 2017, , .		0
185	Metal-Organic Frameworks: 2D and 3D Metal-Organic Framework at the Oil/Water Interface: A Case Study of Copper Benzenedicarboxylate (Adv. Mater. Interfaces 2/2019). Advanced Materials Interfaces, 2019, 6, 1970015.	3.7	0
186	Bayesian biclustering by dynamics: Algorithm testing, comparison against random agglomeration, and calculation of application specific prior information. MethodsX, 2020, 7, 100897.	1.6	0