# Hassan Hassanzadeh

List of Publications by Year
in descending order

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|---|---|---|---|
| 178<br>papers | 4,661<br>citations | 94269<br>37<br>h-index | 138251<br>58<br>g-index |
| 182<br>all docs | 182<br>docs citations | 182<br>times ranked | 2214<br>citing authors |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 1 | Convective dissolution of CO2 in saline aquifers: Progress in modeling and experiments. International Journal of Greenhouse Gas Control, 2015, 40, 238-266. | 2.3 | 232 |
| 2 | Scaling behavior of convective mixing, with application to geological storage of CO2. AICHE Journal, 2007, 53, 1121-1131. | 1.8 | 203 |
| 3 | Predicting PVT data for CO2–brine mixtures for black-oil simulation of CO2 geological storage. International Journal of Greenhouse Gas Control, 2008, 2, 65-77. | 2.3 | 134 |
| 4 | Stability of a fluid in a horizontal saturated porous layer: effect of non-linear concentration profile, initial, and boundary conditions. Transport in Porous Media, 2006, 65, 193-211. | 1.2 | 132 |
| 5 | Comparison of different numerical Laplace inversion methods for engineering applications. Applied Mathematics and Computation, 2007, 189, 1966-1981. | 1.4 | 130 |
| 6 | Accelerating $CO_2$ Dissolution in Saline Aquifers for Geological Storage â€" Mechanistic and Sensitivity Studies. Energy &amp; Fuels, 2009, 23, 3328-3336. | 2.5 | 123 |
| 7 | Semi-analytical solution for pressure transient analysis of a hydraulically fractured vertical well in a bounded dual-porosity reservoir. Journal of Hydrology, 2018, 565, 289-301. | 2.3 | 117 |
| 8 | Constant-Pressure Technique for Gas Diffusivity and Solubility Measurements in Heavy Oil and Bitumen. Energy &amp; Fuels, 2010, 24, 533-549. | 2.5 | 115 |
| 9 | The impact of geochemistry on convective mixing in a gravitationally unstable diffusive boundary layer in porous media: $CO_2$ storage in saline aquifers. Journal of Fluid Mechanics, 2011, 673, 480-512. | 1.4 | 93 |
| 10 | Preâ€Darcy Flow in Porous Media. Water Resources Research, 2017, 53, 8187-8210. | 1.7 | 91 |
| 11 | Diffusive leakage of brine from aquifers during CO2 geological storage. Advances in Water Resources, 2018, 111, 36-57. | 1.7 | 82 |
| 12 | Modelling of Convective Mixing in CO2 Storage. Journal of Canadian Petroleum Technology, 2005, 44, . | 2.3 | 74 |
| 13 | Matrixâ€"fracture transfer shape factor for modeling flow of a compressible fluid in dual-porosity media. Advances in Water Resources, 2011, 34, 627-639. | 1.7 | 72 |
| 14 | Shear dispersion in a fracture with porous walls. Advances in Water Resources, 2014, 74, 14-25. | 1.7 | 68 |
| 15 | CO2 sequestration coupled with enhanced gas recovery in shale gas reservoirs. Journal of CO2 Utilization, 2019, 34, 646-655. | 3.3 | 68 |
| 16 | Linear Stability Analysis of Double-Diffusive Convection in Porous Media, with Application to Geological Storage of CO2. Transport in Porous Media, 2010, 84, 441-456. | 1.2 | 60 |
| 17 | Mutual solubility of CH4, CO2, H2S, and their mixtures in brine under subsurface disposal conditions. Fluid Phase Equilibria, 2012, 324, 80-93. | 1.4 | 59 |
| 18 | The role of natural fractures of finite double-porosity aquifers on diffusive leakage of brine during geological storage of CO2. International Journal of Greenhouse Gas Control, 2018, 78, 177-197. | 2.3 | 52 |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 19 | Estimation of concentration-dependent diffusion coefficient in pressure-decay experiment of heavy oils and bitumen. Fluid Phase Equilibria, 2011, 305, 132-144. | 1.4 | 51 |
| 20 | Effects of Fracture Boundary Conditions on Matrix-fracture Transfer Shape Factor. Transport in Porous Media, 2006, 64, 51-71. | 1.2 | 50 |
| 21 | The effect of anisotropic dispersion on the convective mixing in long-term $CO_2$ storage in saline aquifers. AICHE Journal, 2011, 57, 561-570. | 1.8 | 50 |
| 22 | Formation of liquid bridges between porous matrix blocks. AICHE Journal, 2011, 57, 286-298. | 1.8 | 49 |
| 23 | Shear dispersion in combined pressure-driven and electro-osmotic flows in a capillary tube with a porous wall. AICHE Journal, 2015, 61, 3981-3995. | 1.8 | 49 |
| 24 | Two-phase convective mixing under a buoyant plume of CO2 in deep saline aquifers. Advances in Water Resources, 2015, 76, 55-71. | 1.7 | 49 |
| 25 | Characterization of heavy crude oils and residues using combined Gel Permeation Chromatography and simulated distillation. Fuel, 2018, 233, 885-893. | 3.4 | 49 |
| 26 | Reinfiltration through liquid bridges formed between two matrix blocks in fractured rocks. Journal of Hydrology, 2014, 519, 3520-3530. | 2.3 | 47 |
| 27 | Thermophysical properties of dimethyl ether/Athabasca bitumen system. Canadian Journal of Chemical Engineering, 2018, 96, 597-604. | 0.9 | 47 |
| 28 | Shear dispersion in combined pressure-driven and electro-osmotic flows in a channel with porous walls. Chemical Engineering Science, 2015, 137, 205-215. | 1.9 | 46 |
| 29 | Analysis of conductive heat transfer during in-situ electrical heating of oil sands. Fuel, 2016, 178, 290-299. | 3.4 | 44 |
| 30 | The effect of natural flow of aquifers and associated dispersion on the onset of buoyancy-driven convection in a saturated porous medium. AICHE Journal, 2009, 55, 475-485. | 1.8 | 43 |
| 31 | Shape factor in the drawdown solution for well testing of dual-porosity systems. Advances in Water Resources, 2009, 32, 1652-1663. | 1.7 | 41 |
| 32 | Advective–diffusive mass transfer in fractured porous media with variable rock matrix block size. Journal of Contaminant Hydrology, 2012, 133, 94-107. | 1.6 | 41 |
| 33 | Shear Dispersion in a Rough-Walled Fracture. SPE Journal, 2018, 23, 1669-1688. | 1.7 | 41 |
| 34 | Semi-Analytical Solutions for a Partially Penetrated Well with Wellbore Storage and Skin Effects in a Double-Porosity System with a Gas Cap. Transport in Porous Media, 2013, 100, 159-192. | 1.2 | 40 |
| 35 | Shear dispersion in a capillary tube with a porous wall. Journal of Contaminant Hydrology, 2016, 185-186, 87-104. | 1.6 | 40 |
| 36 | Prediction of water content of sour and acid gases. Fluid Phase Equilibria, 2010, 299, 171-179. | 1.4 | 37 |

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| 37 | Onset of dissolution-driven instabilities in fluids with nonmonotonic density profile. Physical Review E, 2015, 92, 053023. | 0.8 | 37 |
| 38 | Prediction of water solubility in petroleum fractions and heavy crudes using cubic-plus-association equation of state (CPA-EoS). Fuel, 2015, 159, 894-899. | 3.4 | 37 |
| 39 | A comparative study of oil sands preheating using electromagnetic waves, electrical heaters and steam circulation. International Journal of Heat and Mass Transfer, 2017, 111, 908-916. | 2.5 | 37 |
| 40 | Experimental and modelling studies of MacKay River bitumen and light $n$-alkane binaries. Canadian Journal of Chemical Engineering, 2017, 95, 1417-1427. | 0.9 | 35 |
| 41 | Selection of efficient solvent in solvent-aided thermal recovery of bitumen. Chemical Engineering Science, 2017, 161, 198-205. | 1.9 | 33 |
| 42 | Stability analysis of two-phase buoyancy-driven flow in the presence of a capillary transition zone. Physical Review E, 2013, 87, . | 0.8 | 31 |
| 43 | Does impure $CO_2$ impede or accelerate the onset of convective mixing in geological storage?. International Journal of Greenhouse Gas Control, 2016, 54, 250-257. | 2.3 | 31 |
| 44 | Numerical simulations of bitumen recovery using solvent and water assisted electrical heating. Fuel, 2016, 186, 68-81. | 3.4 | 31 |
| 45 | Modelling and parameter estimation of ultra-dispersed in situ catalytic upgrading experiments in a batch reactor. Fuel, 2010, 89, 2822-2828. | 3.4 | 30 |
| 46 | Mass Transfer of $CO_2$ in a Carbonated Water–Oil System at High Pressures. Industrial &amp; Engineering Chemistry Research, 2017, 56, 404-416. | 1.8 | 30 |
| 47 | Effect of Asphaltene on Phase Behavior and Thermophysical Properties of Solvent/Bitumen Systems. Journal of Chemical &amp; Engineering Data, 2017, 62, 547-557. | 1.0 | 29 |
| 48 | Impact of shale barriers on performance of SAGD and ES-SAGD — A review. Fuel, 2021, 289, 119850. | 3.4 | 29 |
| 49 | One-Dimensional Matrix-Fracture Transfer in Dual Porosity Systems with Variable Block Size Distribution. Transport in Porous Media, 2012, 95, 185-212. | 1.2 | 28 |
| 50 | $CO_2$ dissolution in the presence of background flow of deep saline aquifers. Water Resources Research, 2015, 51, 2595-2615. | 1.7 | 28 |
| 51 | Solubility and thermo-physical properties measurement of $CO_2$- and $N_2$-Athabasca bitumen systems. Journal of Petroleum Science and Engineering, 2017, 154, 277-283. | 2.1 | 28 |
| 52 | Experimental and modeling studies of MacKay River bitumen and water. Journal of Petroleum Science and Engineering, 2017, 151, 305-310. | 2.1 | 27 |
| 53 | Thermal analysis of high frequency electromagnetic heating of lossy porous media. Chemical Engineering Science, 2017, 172, 13-22. | 1.9 | 27 |
| 54 | A reduced-order model for chemical species transport in a tube with a constant wall concentration. Canadian Journal of Chemical Engineering, 2018, 96, 307-316. | 0.9 | 27 |

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| 55 | On the choice of analogue fluids in $CO_2$ convective dissolution experiments. Water Resources Research, 2016, 52, 4458-4468. | 1.7 | 25 |
| 56 | Experimental and modeling studies of water, light n-alkanes and MacKay River bitumen ternary systems. Fuel, 2017, 196, 1-12. | 3.4 | 25 |
| 57 | A thermodynamic model to predict propane solubility in bitumen and heavy oil based on experimental fractionation and characterization. Journal of Petroleum Science and Engineering, 2018, 168, 156-177. | 2.1 | 25 |
| 58 | Effect of fracture pressure depletion regimes on the dual-porosity shape factor for flow of compressible fluids in fractured porous media. Advances in Water Resources, 2011, 34, 1681-1693. | 1.7 | 24 |
| 59 | Application of taylor dispersion technique to measure mutual diffusion coefficient in hexaneâ€‰+â€‰bitumen system. AICHE Journal, 2014, 60, 2670-2682. | 1.8 | 24 |
| 60 | Modeling of desiccated zone development during electromagnetic heating of oil sands. Journal of Petroleum Science and Engineering, 2017, 154, 163-171. | 2.1 | 24 |
| 61 | Temperature Transient Analysis of Naturally Fractured Geothermal Reservoirs. SPE Journal, 2022, 27, 2723-2745. | 1.7 | 24 |
| 62 | Prediction of solubility of $CH_4$, $C_2H_6$, $CO_2$, $N_2$ and CO in bitumen. Canadian Journal of Chemical Engineering, 2014, 92, 563-572. | 0.9 | 23 |
| 63 | Gas Generation during Electrical Heating of Oil Sands. Energy &amp; Fuels, 2016, 30, 7001-7013. | 2.5 | 23 |
| 64 | Onset of Convection in CO2 Sequestration in Deep Inclined Saline Aquifers. Journal of Canadian Petroleum Technology, 2009, 48, 22-27. | 2.3 | 22 |
| 65 | A new analytical model for estimation of the molecular diffusion coefficient of gaseous solvents in bitumen â€" Effect of swelling. Fuel, 2018, 231, 342-351. | 3.4 | 22 |
| 66 | Adsorption Kinetics of Asphaltenes at the Heptolâ€"Water Interface. Energy &amp; Fuels, 2020, 34, 3144-3152. | 2.5 | 22 |
| 67 | Scalings of Rayleigh-Taylor Instability at Large Viscosity Contrasts in Porous Media. Physical Review Letters, 2021, 126, 094501. | 2.9 | 22 |
| 68 | Reverse gas-lift technology for CO 2 storage into deep saline aquifers. Energy, 2012, 45, 840-849. | 4.5 | 21 |
| 69 | Semianalytical solutions for release of fluids from rock matrix blocks with different shapes, sizes, and depletion regimes. Water Resources Research, 2013, 49, 2174-2196. | 1.7 | 21 |
| 70 | Prediction of CO2 solubility in bitumen using the cubic-plus-association equation of state (CPA-EoS). Journal of Supercritical Fluids, 2015, 98, 44-49. | 1.6 | 21 |
| 71 | Prospect for storage of impure carbon dioxide streams in deep saline aquifersâ€"A convective dissolution perspective. International Journal of Greenhouse Gas Control, 2017, 63, 350-355. | 2.3 | 21 |
| 72 | New Solubility and Viscosity Measurements for Methaneâ€", Ethaneâ€", Propaneâ€", and Butaneâ€"Athabasca Bitumen Systems at High Temperatures up to 260 Â°C. Journal of Chemical &amp; Engineering Data, 2018, 63, 3566-3571. | 1.0 | 21 |

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| 73 | Numerical simulation of solvent and water assisted electrical heating of oil sands including aquathermolysis and thermal cracking reactions. AICHE Journal, 2017, 63, 4243-4258. | 1.8 | 20 |
| 74 | Control of viscous fingering by nanoparticles. Physical Review E, 2017, 96, 063114. | 0.8 | 20 |
| 75 | Thermo‐physical properties of $n$‐pentane/bitumen and $n$‐hexane/bitumen mixture systems. Canadian Journal of Chemical Engineering, 2018, 96, 339-351. | 0.9 | 20 |
| 76 | Mixing induced by buoyancy‐driven flows in porous media. AICHE Journal, 2013, 59, 1378-1389. | 1.8 | 19 |
| 77 | Measuring and Modeling the Solubility and Density for $CO_2$–Toluene and $C_2H_6$–Toluene Systems. Journal of Chemical &amp; Engineering Data, 2015, 60, 1592-1599. | 1.0 | 19 |
| 78 | Phase behaviour of butane/bitumen fractions: Experimental and modeling studies. Fuel, 2018, 220, 47-59. | 3.4 | 19 |
| 79 | Ethyl acetate as a bio‐based solvent to reduce energy intensity and $CO_2$ emissions of in situ bitumen recovery. AICHE Journal, 2020, 66, e16828. | 1.8 | 18 |
| 80 | Analytical well-test model for hydraulicly fractured wells with multiwell interference in double porosity gas reservoirs. Journal of Natural Gas Science and Engineering, 2022, 103, 104624. | 2.1 | 18 |
| 81 | A new insight into the stability of variable viscosity diffusive boundary layers in porous media under gravity field. AICHE Journal, 2018, 64, 1083-1094. | 1.8 | 17 |
| 82 | Development of Generalized Correlations for Thermophysical Properties of Light Hydrocarbon Solvents ($C_1$–$C_5$)/Bitumen Systems Using Genetic Programming. ACS Omega, 2019, 4, 6955-6967. | 1.6 | 17 |
| 83 | Measurements of Molecular Diffusion Coefficient and Solubility of Dimethyl Ether in Bitumen at $T$ = (323.15–383.15 K) and $P$ = (0.69–2.76 MPa). Journal of Chemical &amp; Engineering Data, 2019, 64, 5935-5945. | 1.0 | 17 |
| 84 | 2-D physical model experimental study of ethyl acetate and steam co-injection for in-situ bitumen recovery. Fuel, 2020, 265, 116943. | 3.4 | 17 |
| 85 | Mechanism of methanol decomposition by non-thermal plasma. Journal of Electrostatics, 2010, 68, 424-428. | 1.0 | 16 |
| 86 | Dimethylether-A Promising Solvent for ES-SAGD. , 2018, , . | | 16 |
| 87 | Concentration‐dependent molecular diffusion coefficient of gaseous ethane in liquid toluene. AICHE Journal, 2020, 66, e16966. | 1.8 | 16 |
| 88 | The laboratory testing and scale-up of a downhole device for CO2 dissolution acceleration. International Journal of Greenhouse Gas Control, 2013, 16, 41-49. | 2.3 | 15 |
| 89 | Application of tracer injection tests to characterize rock matrix block size distribution and dispersivity in fractured aquifers. Journal of Hydrology, 2014, 510, 504-512. | 2.3 | 15 |
| 90 | Characterization of Scale‐Dependent Dispersivity in Fractured Formations Through a Divergent Flow Tracer Test. Ground Water, 2015, 53, 149-155. | 0.7 | 15 |

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| 91 | Concentration-dependent molecular diffusion coefficient of dimethyl ether in bitumen. Fuel, 2020, 274, 117809. | 3.4 | 15 |
| 92 | Measurements and NRTL modeling of liquid-liquid equilibrium of dimethyl ether/bitumen. Fluid Phase Equilibria, 2020, 512, 112549. | 1.4 | 15 |
| 93 | Numerical modeling of electromagnetic-based thermal recovery techniques combined with solvent injection. International Journal of Heat and Mass Transfer, 2020, 151, 119393. | 2.5 | 15 |
| 94 | A qualitative study of the impact of random shale barriers on SAGD performance using data analytics and machine learning. Journal of Petroleum Science and Engineering, 2021, 205, 108950. | 2.1 | 15 |
| 95 | A comparative study of flux-limiting methods for numerical simulation of gas–solid reactions with Arrhenius type reaction kinetics. Computers and Chemical Engineering, 2009, 33, 133-143. | 2.0 | 14 |
| 96 | Hydrodynamic dispersion in steady buoyancy–driven geological flows. Water Resources Research, 2011, 47, . | 1.7 | 14 |
| 97 | Formation heating by steam circulation in a horizontal wellbore. International Journal of Heat and Mass Transfer, 2014, 78, 986-992. | 2.5 | 14 |
| 98 | Stability Analysis of Coupled Heat and Mass Transfer Boundary Layers During Steam–Solvent Oil Recovery Process. Transport in Porous Media, 2015, 108, 595-615. | 1.2 | 14 |
| 99 | Dynamics of Miscible Nanocatalytic Reactive Flows in Porous Media. Physical Review Applied, 2018, 10, . | 1.5 | 14 |
| 100 | Effect of additives on liquid–liquid equilibrium properties of butane/bitumen systems with applications to solvent aided bitumen recovery processes. Chemical Engineering Research and Design, 2018, 137, 452-460. | 2.7 | 14 |
| 101 | Asphaltene Mesoscale Aggregation Behavior in Organic Solvents–A Brownian Dynamics Study. Journal of Physical Chemistry B, 2018, 122, 8477-8492. | 1.2 | 14 |
| 102 | Equivalent Rate Constant for Numerical Simulation of Linear Convection-Diffusion-Reaction. Journal of Canadian Petroleum Technology, 2010, 49, 51-57. | 2.3 | 13 |
| 103 | Frontal stability of reactive nanoparticle transport during in situ catalytic upgrading of heavy oil. Fuel, 2013, 107, 525-538. | 3.4 | 13 |
| 104 | Effect of the Surfactant on Asphaltene Deposition on Stainless-Steel and Glass Surfaces. Energy &amp; Fuels, 2018, 32, 5635-5642. | 2.5 | 13 |
| 105 | An analytical method of estimating diffusion coefficients of gases in liquids from pressure decay tests. AIChE Journal, 2019, 65, 434-445. | 1.8 | 13 |
| 106 | Mechanistic modelling of non-equilibrium interphase mass transfer during solvent-aided thermal recovery processes of bitumen and heavy oil. Fuel, 2019, 241, 813-825. | 3.4 | 13 |
| 107 | Experimental Evaluation on the Oil Saturation and Movability in the Organic and Inorganic Matter of Shale. Energy &amp; Fuels, 2020, 34, 8063-8073. | 2.5 | 13 |
| 108 | Phase equilibria of water-hydrocarbon (pentane to heavy oils) systems in the near-critical and supercritical water regions - A literature review. Journal of Supercritical Fluids, 2021, 178, 105356. | 1.6 | 13 |

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| 109 | A method for characterization of bitumen. Fuel, 2015, 153, 240-248. | 3.4 | 12 |
| 110 | Solubility and Liquid Density of Ammonia/Athabasca Bitumen Mixtures at Temperatures up to 463 K: Measurements and Modeling. Journal of Chemical &amp; Engineering Data, 2019, 64, 3592-3597. | 1.0 | 12 |
| 111 | On the Dynamics of Twoâ€Component Convective Dissolution in Porous Media. Water Resources Research, 2019, 55, 4030-4042. | 1.7 | 12 |
| 112 | Measurements of the Molecular Diffusion Coefficient of Dimethyl Ether in Water at $T$ = (313.15â€"373.15 K) and $P$ = (0.69â€"2.76 MPa). Journal of Chemical &amp; Engineering Data, 2021, 66, 2754-2763. | 1.0 | 12 |
| 113 | Cost-effective and sensitive anthocyanin-based paper sensors for rapid ammonia detection in aqueous solutions. RSC Advances, 2021, 11, 24387-24397. | 1.7 | 12 |
| 114 | Standardized High-Performance Liquid Chromatography to Replace Conventional Methods for Determination of Saturate, Aromatic, Resin, and Asphaltene (SARA) Fractions. ACS Omega, 2022, 7, 18897-18903. | 1.6 | 12 |
| 115 | Stability of gravitationally unstable double diffusive transient boundary layers with variable viscosity in porous media. AICHE Journal, 2017, 63, 2471-2482. | 1.8 | 11 |
| 116 | An experimental approach to investigating permeability reduction caused by solventâ€induced asphaltene deposition in porous media. Canadian Journal of Chemical Engineering, 2019, 97, 361-371. | 0.9 | 11 |
| 117 | Estimation of diffusion coefficient of gases in liquids from swelling data â€" An analytical model for including the effects of advection and density change. Fuel, 2019, 252, 68-76. | 3.4 | 11 |
| 118 | Numerical modeling of viscous fingering during miscible displacement of oil by a paraffinic solvent in the presence of asphaltene precipitation and deposition. International Journal of Heat and Mass Transfer, 2020, 154, 119688. | 2.5 | 11 |
| 119 | On Estimating the Water Content of $CO_2$ in Equilibrium With Formation Brine. Petroleum Science and Technology, 2011, 29, 2037-2051. | 0.7 | 10 |
| 120 | Influence of nanoparticles on the dynamics of miscible Hele-Shaw flows. Journal of Applied Physics, 2011, 109, . | 1.1 | 10 |
| 121 | Modeling of $CO_2$ dissolution by static mixers using back flow mixing approach with application to geological storage. Chemical Engineering Science, 2013, 104, 10-16. | 1.9 | 10 |
| 122 | Critical review of mutual diffusion coefficient measurements for liquid solventâ€‰+â€‰bitumen/heavy oil mixtures. Canadian Journal of Chemical Engineering, 2014, 92, 1455-1466. | 0.9 | 10 |
| 123 | Water content of light nâ€alkanes: New measurements and cubicâ€plusâ€association equation of state modeling. AICHE Journal, 2017, 63, 1384-1389. | 1.8 | 10 |
| 124 | Dispersion tensor in a two-phase flow in a slit. Physics of Fluids, 2021, 33, 103612. | 1.6 | 10 |
| 125 | Effects of Operational Parameters on Diffusion Coefficients of $CO_2$ in a Carbonated Waterâ€"Oil System. Industrial &amp; Engineering Chemistry Research, 2017, 56, 12799-12810. | 1.8 | 9 |
| 126 | Particles aggregation and fragmentation â€" A Monte Carlo study. Chemical Physics, 2019, 517, 6-12. | 0.9 | 9 |

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| 127 | Evaluation of Shale-Gas-Phase Behavior under Nanoconfinement in Multimechanistic Flow. Industrial &amp; Engineering Chemistry Research, 2020, 59, 15048-15057. | 1.8 | 9 |
| 128 | Dynamics of Viscous Fingering in Porous Media in the Presence of In Situ Formed Precipitates and Their Subsequent Deposition. Water Resources Research, 2020, 56, e2019WR027042. | 1.7 | 9 |
| 129 | Prediction of Bitumen and Solvent Mixture Viscosity Using Cubic-Plus-Association Equation of State. , 2012, , . | | 8 |
| 130 | Lumped mass transfer coefficient for divergent radial solute transport in fractured aquifers. Journal of Hydrology, 2013, 495, 113-120. | 2.3 | 8 |
| 131 | Analytical modelling of cyclic steam stimulation (CSS) process with a horizontal well configuration. Canadian Journal of Chemical Engineering, 2018, 96, 573-589. | 0.9 | 8 |
| 132 | Suitability of hot urea solutions for wettability alteration of bitumen reservoirs â€" Simulation of laboratory flooding experiments. Fuel, 2020, 272, 117713. | 3.4 | 8 |
| 133 | Automated High-Performance Liquid Chromatography for SARA Analysis (SARA-HPLC). Energy &amp; Fuels, 2021, 35, 17642-17650. | 2.5 | 8 |
| 134 | Cubic-plus-association equation of state parameterization of liquid-liquid equilibrium of propaneÂ+Ân-butaneÂ+Âbitumen and dimethyl etherÂ+Âbitumen systems. Fluid Phase Equilibria, 2022, 554, 113341. | 1.4 | 8 |
| 135 | Dispersion tensor in stratified porous media. Physical Review E, 2022, 105, . | 0.8 | 8 |
| 136 | Suitability of ionic solutions as a chemical substance for chemical enhanced oil recovery â€" A simulation study. Fuel, 2019, 242, 368-373. | 3.4 | 7 |
| 137 | An Analytical Model for Estimation of the Self-Diffusion Coefficient and Adsorption Kinetics of Surfactants Using Dynamic Interfacial Tension Measurements. Journal of Physical Chemistry B, 2020, 124, 3206-3213. | 1.2 | 7 |
| 138 | Measurements and modeling of liquid-liquid equilibrium of PropaneÂ+Ân-ButaneÂ+ÂBitumen system. Fuel, 2021, 293, 120353. | 3.4 | 7 |
| 139 | Onset of Convective Mixing at the Edge of Steam Chamber in Steam-Solvent Recovery of Heavy Oil and Bitumen. , 2012, , . | | 6 |
| 140 | A Semiâ€Analytical Solution to Evaluate the Spatiotemporal Behavior of Diffusive Pressure Plume and Leakage From Geological Storage Sites. Water Resources Research, 2021, 57, e2021WR030366. | 1.7 | 6 |
| 141 | Transient non-isothermal coupled wellbore-reservoir modeling of CO2 injection Ââ€" Application to CO2 injection tests at the CaMI FRS site, Alberta, Canada. International Journal of Greenhouse Gas Control, 2021, 111, 103462. | 2.3 | 6 |
| 142 | Numerical simulation of asphaltene deposition in porous media induced by solvent injection. International Journal of Heat and Mass Transfer, 2021, 181, 121889. | 2.5 | 6 |
| 143 | The role of a porous wall on the solute dispersion in a concentric annulus. Physics of Fluids, 2021, 33, 116602. | 1.6 | 6 |
| 144 | Experimental Measurements and Correlation of K-value, Viscosity, and Density Data for Mixtures of Light to Heavy Solvents and Athabasca Bitumen with Applications of ES-SAGD Process. , 2016, , . | | 5 |

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| 145 | Generalized Approach to Predict k-Values of Hydrocarbon Solvent/Bitumen Mixtures. , 2018, , . | | 5 |
| 146 | Onset of density-driven instabilities in fractured aquifers. Physical Review E, 2018, 97, 043109. | 0.8 | 5 |
| 147 | Modeling of Carbon Dioxide Leakage from Storage Aquifers. Fluids, 2018, 3, 80. | 0.8 | 5 |
| 148 | Estimation of Shale Apparent Permeability for Multimechanistic, Multicomponent Gas Production Using Rate Transient Analysis. Energy &amp; Fuels, 2019, 33, 1990-1997. | 2.5 | 5 |
| 149 | Propane-Aided Leaching of Bitumen from Oilsands. Energy &amp; Fuels, 2020, 34, 5798-5803. | 2.5 | 5 |
| 150 | Interfacial Tension of n-Pentane/Bitumen and n-Heptane/Bitumen Mixtures at T = 298.15â€"413.15 K and P = 3.45 MPa. Journal of Chemical &amp; Engineering Data, 2020, 65, 1787-1794. | 1.0 | 5 |
| 151 | Subsurface Containment of Injected Chemicals during In-Situ Bitumen Recovery from Oil Sands. ACS ES&T Engineering, 2022, 2, 681-688. | 3.7 | 5 |
| 152 | Vaporâ€"Liquidâ€"Liquid Equilibrium Modeling of Water/Bitumen/Solvent ($C_1$, $C_2$,) Tj ETQq0 0 0 rgBT /Overlo State. Industrial &amp; Engineering Chemistry Research, 2022, 61, 8279-8292. | 1.8 | 5 |
| 153 | Comments on the paper â€œeffect of impurities on the onset and the growth of gravitational instabilities in a geological CO2 storage process: Linear and nonlinear analysesâ€•M.C. Kim, K.H. Song (2017). Chemical Engineering Science, 2018, 192, 613-618. | 1.9 | 4 |
| 154 | The significance of operating parameters on electromagnetic-solvent bitumen recovery process. Fuel, 2021, 304, 121373. | 3.4 | 4 |
| 155 | New line-source solution and scaling relations for diffusive leakage of brine from an infinite aquifer-caprock composite domain during geological storage of CO2. International Journal of Greenhouse Gas Control, 2022, 118, 103664. | 2.3 | 4 |
| 156 | Subsurface waste heat recovery from the abandoned steam assisted gravity drainage (SAGD) operations. Energy, 2022, 256, 124615. | 4.5 | 4 |
| 157 | Measurement of Concentration-Dependent Diffusion Coefficient of Gaseous Solvents in Bitumen. , 2020, , . | | 3 |
| 158 | Efficiency of Urea Solutions in Enhanced Oil Recovery. ACS Omega, 2020, 5, 6122-6129. | 1.6 | 3 |
| 159 | Matrix-fracture transfer shape factor for modeling multimechanisitc multicomponent shale gas flow. International Journal of Heat and Mass Transfer, 2020, 158, 120022. | 2.5 | 3 |
| 160 | Geological Storage of CO2as Hydrate in a McMurray Depleted Gas Reservoir. , 0, , 311-329. | | 3 |
| 161 | Sensitivity analysis of operating parameters affecting CO2 wellbore transient flow at the CaMI Field Research Station, Alberta, Canada. International Journal of Greenhouse Gas Control, 2022, 114, 103594. | 2.3 | 3 |
| 162 | Bitumen Recovery Performance of SAGD and Butane- and Hexane-Aided SAGD in the Presence of Shale Barriers. ACS Omega, 2022, 7, 20280-20290. | 1.6 | 3 |

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