

Vladimir Alvarado

List of Publications by Year in descending order

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123
papers

4,134
citations

136885

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129
all docs

129
docs citations

129
times ranked

2921
citing authors

#	ARTICLE	IF	CITATIONS
1	Influence of interfacial responses of Berea Sandstone in low-salinity waterflooding environments. Fuel, 2022, 311, 121712.	3.4	3
2	Multiscale petrophysical characterization and flow unit classification of the Minnelusa eolian sandstones. Journal of Hydrology, 2022, 607, 127466.	2.3	24
3	Assessment of permeability changes during rock deformation and failure of a sandstone sample using a stress-dependent pore network model. Geomechanics and Geophysics for Geo-Energy and Geo-Resources, 2022, 8, 1.	1.3	1
4	Analysis of <sc>ZTE MRI</sc> application to sandstone and carbonate. AIChE Journal, 2021, 67, e17074.	1.8	2
5	Quantitative Acoustic Emissions Source Mechanisms Analysis of Soft and Competent Rocks through Micromechanics-Seismicity Coupled Modeling. International Journal of Geomechanics, 2021, 21, .	1.3	10
6	Time-Dependent Mechanical Response of Ice Adhesion on Aluminum Substrates. ACS Applied Materials & Interfaces, 2021, 13, 14662-14668.	4.0	1
7	Use of Gas Adsorption and Inversion Methods for Shale Pore Structure Characterization. Energies, 2021, 14, 2880.	1.6	19
8	Effect of CO ₂ -brine-rock reactions on pore architecture and permeability in dolostone: Implications for CO ₂ storage and EOR. International Journal of Greenhouse Gas Control, 2021, 107, 103283.	2.3	35
9	Unveiling stimulation fluid-driven alterations in shale pore architecture through combined interpretation of TD-NMR and multi-component gas adsorption. Fuel, 2021, 297, 120744.	3.4	6
10	Impact of sub-core scale heterogeneity on CO ₂ /brine multiphase flow for geological carbon storage in the upper Minnelusa sandstones. Journal of Hydrology, 2021, 599, 126481.	2.3	26
11	Link Between CO ₂ -Induced Wettability and Pore Architecture Alteration. Geophysical Research Letters, 2020, 47, e2020GL088490.	1.5	12
12	Time-Domain Nuclear Magnetic Resonance Determination of Wettability Alteration: Analysis for Low-Salinity Water. Applied Sciences (Switzerland), 2020, 10, 1017.	1.3	7
13	Influence of silica nanoparticles on heavy oil microrheology via time-domain NMR T ₂ and diffusion probes. Fuel, 2019, 241, 962-972.	3.4	13
14	Ionic strength-dependent pre-asymptotic diffusion coefficient distribution in porous media - Determination through the pulsed field gradient technique. Journal of Natural Gas Science and Engineering, 2018, 49, 250-259.	2.1	10
15	Interfacial Viscoelasticity of Crude Oil/Brine: An Alternative Enhanced-Oil-Recovery Mechanism in Smart Waterflooding. SPE Journal, 2018, 23, 803-818.	1.7	63
16	Economic co-optimization of oil recovery and CO ₂ sequestration. Applied Energy, 2018, 222, 132-147.	5.1	50
17	Select Naphthenic Acids Beneficially Impact Oil-Water Dynamics During Smart Waterflooding. , 2018, , .		5
18	Low-Field Nuclear Magnetic Resonance Characterization of Carbonate and Sandstone Reservoirs From Rock Spring Uplift of Wyoming. Journal of Geophysical Research: Solid Earth, 2018, 123, 7444-7460.	1.4	23

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19	Amphiphilic second-order phase transitions determined through NMR. Journal of Molecular Liquids, 2018, 268, 647-657.	2.3	1
20	Experimental and Theoretical Study of Viscosity Reduction in Heavy Crude Oils by Addition of Nanoparticles. Energy & Fuels, 2017, 31, 1329-1338.	2.5	105
21	Anomalous Heavy-Oil Rheological Thinning Behavior upon Addition of Nanoparticles: Departure from Einstein's Theory. Chemical Engineering Communications, 2017, 204, 648-657.	1.5	12
22	A rock physics and seismic reservoir characterization study of the Rock Springs Uplift, a carbon dioxide sequestration site in Southwestern Wyoming. International Journal of Greenhouse Gas Control, 2017, 63, 296-309.	2.3	21
23	Effect of SiO ₂ -based nanofluids in the reduction of naphtha consumption for heavy and extra-heavy oils transport: Economic impacts on the Colombian market. Energy Conversion and Management, 2017, 148, 30-42.	4.4	29
24	Physicochemical Constraints on Surfactant Blends under Harsh Conditions and Evaluation of a Proposed Solution. Energy & Fuels, 2017, 31, 95-106.	2.5	5
25	Smart Water Flooding in Berea Sandstone at Low Temperature: Is Wettability Alteration the Sole Mechanism at Play?. , 2017, , .		15
26	The effects of SiO ₂ nanoparticles on the thermal stability and rheological behavior of hydrolyzed polyacrylamide based polymeric solutions. Journal of Petroleum Science and Engineering, 2017, 159, 841-852.	2.1	99
27	Water-alternating-macroemulsion reservoir simulation through capillary number-dependent modeling. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2017, 39, 4135-4145.	0.8	9
28	Interfacial rheological insights of sulfate-enriched smart-water at low and high-salinity in carbonates. Fuel, 2017, 207, 402-412.	3.4	51
29	Effects of low-salinity waterflooding on capillary pressure hysteresis. Fuel, 2017, 207, 336-343.	3.4	22
30	Rheological demonstration of alteration in the heavy crude oil fluid structure upon addition of nanoparticles. Fuel, 2017, 189, 322-333.	3.4	74
31	Introduction to special section: Multidisciplinary studies for geologic and geophysical characterization of CO ₂ storage reservoirs. Interpretation, 2017, 5, SSi-SSii.	0.5	0
32	A New Model for Describing the Rheological Behavior of Heavy and Extra Heavy Crude Oils in the Presence of Nanoparticles. Energies, 2017, 10, 2064.	1.6	7
33	Stability of liquid bridges with elastic interface. RSC Advances, 2017, 7, 49344-49352.	1.7	9
34	Snap-off in constricted capillary with elastic interface. Physics of Fluids, 2016, 28, .	1.6	18
35	Analysis of capillary pressure and relative permeability hysteresis under low-salinity waterflooding conditions. Fuel, 2016, 180, 228-243.	3.4	35
36	Effects of asphaltenes and organic acids on crude oil-brine interfacial visco-elasticity and oil recovery in low-salinity waterflooding. Fuel, 2016, 185, 151-163.	3.4	94

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37	Effect of nanoparticles/nanofluids on the rheology of heavy crude oil and its mobility on porous media at reservoir conditions. <i>Fuel</i> , 2016, 184, 222-232.	3.4	143
38	Experimental Study of Porosity Changes in Shale Caprocks Exposed to CO ₂ -Saturated Brines I: Evolution of Mineralogy, Pore Connectivity, Pore Size Distribution, and Surface Area. <i>Environmental Engineering Science</i> , 2016, 33, 725-735.	0.8	56
39	Influence of Aqueous-Phase Ionic Strength and Composition on the Dynamics of Water-Crude Oil Interfacial Film Formation. <i>Energy & Fuels</i> , 2016, 30, 9170-9180.	2.5	37
40	Experimental Study of Porosity Changes in Shale Caprocks Exposed to Carbon Dioxide-Saturated Brine II: Insights from Aqueous Geochemistry. <i>Environmental Engineering Science</i> , 2016, 33, 736-744.	0.8	22
41	A microfluidic flow focusing platform to screen the evolution of crude oil-brine interfacial elasticity. <i>Lab on A Chip</i> , 2016, 16, 3074-3081.	3.1	56
42	Analysis of Physico-Chemical Constraints on Surfactant Blends for Offshore Reservoirs. , 2016, , .		1
43	Surfactant Behavior Analysis in Enhanced Oil Recovery Blends Using One-Dimensional Proton Nuclear Magnetic Resonance. <i>Energy & Fuels</i> , 2016, 30, 63-71.	2.5	12
44	Considerations of Adjusted Brine Chemistry for Waterflooding in Offshore Environments. , 2015, , .		10
45	Effect of fracture roughness on seismic source and fluid transport responses. <i>Geophysical Research Letters</i> , 2014, 41, 1530-1536.	1.5	7
46	Impact of Alkaline-Surfactant-Polymer Flooding Model on Upscaled Recovery Predictions: Medium and Heavy Oils. , 2014, , .		5
47	Interfacial Visco-Elasticity of Crude Oil - Brine: An Alternative EOR Mechanism in Smart Waterflooding. , 2014, , .		55
48	Efficient modeling of seismic signature of patchy saturation for time lapse monitoring of carbon sequestrated deep saline reservoirs. <i>Applied Energy</i> , 2014, 114, 445-455.	5.1	5
49	Dynamic flow response of crude oil-in-water emulsion during flow through porous media. <i>Fuel</i> , 2014, 135, 38-45.	3.4	71
50	Prediction of Transport Properties of Deformed Natural Fracture Through Micro-scale Hydro-mechanical Modeling. <i>Transport in Porous Media</i> , 2014, 104, 1-23.	1.2	3
51	Oil recovery modeling of macro-emulsion flooding at low capillary number. <i>Journal of Petroleum Science and Engineering</i> , 2014, 119, 112-122.	2.1	43
52	Microscale modeling of fluid flow-geomechanics-seismicity: Relationship between permeability and seismic source response in deformed rock joints. <i>Journal of Geophysical Research: Solid Earth</i> , 2014, 119, 6958-6975.	1.4	14
53	Economic Co-optimization of Oil Recovery and CO ₂ Sequestration. , 2014, , .		4
54	Sensitivity Study on Storage of CO ₂ in Saline Aquifer with Fracture-Surrogate Models Based on the Tensleep Formation. , 2014, , .		1

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55	Impact of Polar Components on Crude Oil-Water interfacial Film Formation: A Mechanisms for Low-Salinity Waterflooding. , 2014, , .		31
56	Efficient modeling of seismic signature of patchy saturation for time lapse monitoring of carbon sequestrated deep saline reservoirs. Applied Energy, 2014, 114, 445-455.	5.1	3
57	Dynamic Network Model of Mobility Control in Emulsion Flow Through Porous Media. Transport in Porous Media, 2013, 98, 427-441.	1.2	13
58	Impact of ionic strength on partitioning of naphthenic acids in waterâ€“crude oil systems â€“ Determination through high-field NMR spectroscopy. Fuel, 2013, 112, 236-248.	3.4	62
59	Mitigation of anhydrite dissolution in alkaline floods through injection of conditioned water. Fuel, 2013, 107, 330-342.	3.4	16
60	Reactivity of dolomite in water-saturated supercritical carbon dioxide: Significance for carbon capture and storage and for enhanced oil and gas recovery. Energy Conversion and Management, 2013, 65, 564-573.	4.4	54
61	Role of active clays on alkalineâ€“surfactantâ€“polymer formulation performance in sandstone formations. Fuel, 2013, 104, 593-606.	3.4	39
62	ASP design for the Minnelusa formation under low-salinity conditions: Impacts of anhydrite on ASP performance. Fuel, 2013, 105, 368-382.	3.4	64
63	Effect of hydraulic fracturing on long-term storage of CO2 in stimulated saline aquifers. Applied Energy, 2013, 102, 1091-1104.	5.1	34
64	Conceptual Darcy-Scale Model of Oil Displacement with Macroemulsion. Energy & Fuels, 2013, 27, 1967-1973.	2.5	21
65	Engineering Design Challenges and Opportunities beyond Waterflooding in Offshore Reservoirs. , 2013, , .		12
66	Effect of Alkalinity on Oil Recovery During Polymer Floods in Sandstone. SPE Reservoir Evaluation and Engineering, 2012, 15, 195-209.	1.1	34
67	New Upscaling Scheme for Capillary Dominant Displacement. , 2012, , .		1
68	Upscaling of upward CO2 migration in 2D system. Advances in Water Resources, 2012, 46, 46-54.	1.7	15
69	Effects of Aqueous-Phase Salinity on Water-in-Crude Oil Emulsion Stability. Journal of Dispersion Science and Technology, 2012, 33, 165-170.	1.3	50
70	Modeling CO2 saturation distribution in eolian systems. International Journal of Greenhouse Gas Control, 2012, 11, 110-116.	2.3	9
71	Pore Scale and Macroscopic Displacement Mechanisms in Emulsion Flooding. Transport in Porous Media, 2012, 94, 197-206.	1.2	113
72	Geochemical modeling and experimental evaluation of high-pH floods: Impact of Waterâ€“Rock interactions in sandstone. Fuel, 2012, 92, 216-230.	3.4	41

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73	Capillary-driven mobility control in macro emulsion flow in porous media. International Journal of Multiphase Flow, 2012, 43, 62-65.	1.6	72
74	Geochemically Based Modeling of pH-Sensitive Polymer Injection in Berea Sandstone. Energy & Fuels, 2011, 25, 4024-4035.	2.5	11
75	CO ₂ Saturation, Distribution and Seismic Response in Two-Dimensional Permeability Model. Environmental Science & Technology, 2011, 45, 9435-9441.	4.6	23
76	Effect of Salinity on Water-in-Crude Oil Emulsion: Evaluation through Drop-Size Distribution Proxy. Energy & Fuels, 2011, 25, 260-268.	2.5	163
77	Experiments and network model of flow of oil-water emulsion in porous media. Physical Review E, 2011, 84, 046305.	0.8	59
78	Role of Acid Components and Asphaltenes in Wyoming Water-in-Crude Oil Emulsions. Energy & Fuels, 2011, 25, 4606-4613.	2.5	43
79	Stability Proxies for Water-in-Oil Emulsions and Implications in Aqueous-based Enhanced Oil Recovery. Energies, 2011, 4, 1058-1086.	1.6	68
80	Effect of Alkalinity on Oil Recovery During Polymer Floods in Sandstone. , 2011, , .		5
81	Geochemical Modeling and Experimental Evaluation of High-Ph Floods: Impact of Water-Rock Interactions in Sandstone. , 2011, , .		5
82	CO ₂ saturation, distribution and seismic response in 2D dimensional permeability model. , 2011, , .		4
83	Kaolinite and Silica Dispersions in Low-Salinity Environments: Impact on a Water-in-Crude Oil Emulsion Stability. Energies, 2011, 4, 1763-1778.	1.6	30
84	Seismic signature of a patchy saturation and its implication to time-lapse monitoring of carbon sequestered deep saline reservoirs. , 2011, , .		1
85	Selection of Three-Phase Relative Permeability Model for Mixed-Wet Reservoirs. , 2010, , .		1
86	Impact of Three-Phase Relative Permeability Model on Recovery in Mixed Media: Miscibility, IFT, and Hysteresis Issues. Energy & Fuels, 2010, 24, 5765-5772.	2.5	11
87	Simulations and Simulation Options. , 2010, , 17-42.		1
88	Evaluating Soft Issues. , 2010, , 81-89.		0
89	Economic Considerations and Framing. , 2010, , 91-111.		0
90	Probing Interfacial Water-in-Crude Oil Emulsion Stability Controls Using Electrorheology. Energy & Fuels, 2010, 24, 6359-6365.	2.5	30

#	ARTICLE	IF	CITATIONS
91	Reservoir Development Plans. , 2010, , 1-5.		4
92	Prestack Waveform Inversion—the present state and the road ahead. , 2010, , .		2
93	EOR's Current Status. , 2010, , 133-156.		3
94	Enhanced Oil Recovery: An Update Review. Energies, 2010, 3, 1529-1575.	1.6	808
95	Enhanced Oil Recovery Concepts. , 2010, , 7-16.		57
96	Screening Methods. , 2010, , 43-80.		1
97	EOR: Current Status and Opportunities. , 2010, , .		133
98	Time-lapse monitoring carbon sequestrated brine aquifers—a feasibility study. , 2010, , .		3
99	Snap-off of a liquid drop immersed in another liquid flowing through a constricted capillary. AICHE Journal, 2009, 55, 1993-1999.	1.8	34
100	Flow of oil-water emulsions through a constricted capillary. International Journal of Multiphase Flow, 2009, 35, 507-515.	1.6	139
101	Direct Current Electrorheological Stability Determination of Water-in-Crude Oil Emulsions. Journal of Physical Chemistry B, 2009, 113, 13811-13816.	1.2	29
102	Effective EOR Decision Strategies With Limited Data: Field Cases Demonstration. SPE Reservoir Evaluation and Engineering, 2009, 12, 551-561.	1.1	19
103	Screening Strategy for Chemical Enhanced Oil Recovery in Wyoming Basins. , 2008, , .		15
104	Effective EOR Decision Strategies with Limited Data: Field Cases Demonstration. , 2008, , .		9
105	Flow of Oil-Water Emulsion Through Constricted Capillary Tubes. AIP Conference Proceedings, 2008, , .	0.3	6
106	Effect of Salinity and pH on Pickering Emulsion Stability. , 2008, , .		11
107	Time-lapse seismic modeling assisted by numerical reservoir simulation of water and gas flooding scenarios in oil reservoirs. Revista Brasileira De Geofisica, 2008, 26, 195-209.	0.2	3
108	Time-lapse critical reflection: Sensitivity and uncertainty analysis. , 2007, , .		1

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109	Modelagem sismica time-lapse com base em simulaco de fluxo em reservatrios. , 2007, , .		0
110	Critical reflection time lapse: sensibility and analysis of uncertainties of P-wave velocity changes caused by critical offset variation due to the reservoir fluid substitution. , 2007, , .		0
111	Integration of a Risk Management Tool and an Analytical Simulator for Assisted Decision-Making in IOR. , 2006, , .		6
112	Integration of a Risk Management Tool and an Analytical Simulator for Assisted Decision-Making in IOR. , 2006, , .		2
113	Sensitivity analysis of Gassmann's fluid substitution equations: Some implications in feasibility studies of time-lapse seismic reservoir monitoring. Journal of Applied Geophysics, 2006, 59, 47-62.	0.9	15
114	Hydrodynamic dispersion in a hierarchical network with a power-law distribution of conductances. Physical Review E, 2005, 71, 036304.	0.8	0
115	Ensemble of SVMs for Improving Brain Computer Interface P300 Speller Performances. Lecture Notes in Computer Science, 2005, , 45-50.	1.0	58
116	Sensitivity Analysis in Various Inversion Schemes for evaluating Saturation and Pressure changes in the Context of 4D seismic studies. , 2005, , .		0
117	Selection of EOR/IOR Opportunities Based on Machine Learning. , 2002, , .		60
118	Opportunities of Downhole Dielectric Heating in Venezuela: Three Case Studies Involving Medium, Heavy and Extra-Heavy Crude Oil Reservoirs. , 2002, , .		52
119	WAG Pilot at VLE Field and IOR Opportunities for Mature Fields at Maracaibo Lake. , 2001, , .		10
120	Title is missing!. Transport in Porous Media, 1998, 32, 139-161.	1.2	9
121	Scaling of heterogeneous distributions of conductances: Renormalization versus exact results. Physical Review E, 1998, 58, 771-778.	0.8	5
122	Effects of pore-level reaction on dispersion in porous media. Chemical Engineering Science, 1997, 52, 2865-2881.	1.9	21
123	Towards more realistic (e.g., non-associative) AND- and OR-operations in fuzzy logic. , 0, , .		1