Mehdi Ostadhassan

List of Publications by Year
in descending order

133	3,352	136950	189892
papers	citations	32 h-index	50 g-index

138	138	138	1946
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Performance of Silicon Carbide Nanomaterials in Separation Process. Separation and Purification Reviews, 2023, 52, 205-220.	5.5	3
2	Pressure Transient Analysis. SpringerBriefs in Petroleum Geoscience & Engineering, 2022, , 35-64.	0.3	0
3	Unconventional Oil and Gas Reservoirs. SpringerBriefs in Petroleum Geoscience & Engineering, 2022, , 1-10.	0.3	0
4	Rate Transient Analysis. SpringerBriefs in Petroleum Geoscience & Engineering, 2022, , 65-99.	0.3	1
5	Unconventional Reservoir Engineering. SpringerBriefs in Petroleum Geoscience & Engineering, 2022, , 11-34.	0.3	0
6	Evaluation of different machine learning frameworks to predict CNL-FDC-PEF logs via hyperparameters optimization and feature selection. Journal of Petroleum Science and Engineering, 2022, 208, 109463.	4.2	32
7	A real-world impact of offset frac-hits by rate transient analysis in the Bakken and Three Forks, North Dakota, USA. Journal of Petroleum Science and Engineering, 2022, 208, 109710.	4.2	7
8	Porosity prediction from pre-stack seismic data via committee machine with optimized parameters. Journal of Petroleum Science and Engineering, 2022, 210, 110067.	4.2	12
9	Microstructural analysis of organic matter in shale by SAXS and WAXS methods. Petroleum Science, 2022, 19, 979-989.	4.9	6
10	Estimation of Mechanical Properties of the Bakken Shales Through Convolutional Neural Networks. Rock Mechanics and Rock Engineering, 2022, 55, 1213-1225.	5.4	1
11	Controls of fault-bend fold on natural fractures: Insight from discrete element simulation and outcrops in the southern margin of the Junggar Basin, Western China. Marine and Petroleum Geology, 2022, 138, 105541.	3.3	4
12	Predicting the surfactant-polymer flooding performance in chemical enhanced oil recovery: Cascade neural network and gradient boosting decision tree. AEJ - Alexandria Engineering Journal, 2022, 61, 7715-7731.	6.4	14
13	Modeling Interfacial Tension of N2/CO2 Mixture + n-Alkanes with Machine Learning Methods: Application to EOR in Conventional and Unconventional Reservoirs by Flue Gas Injection. Minerals (Basel, Switzerland), 2022, 12, 252.	2.0	11
14	A case study of petrophysical rock typing and permeability prediction using machine learning in a heterogenous carbonate reservoir in Iran. Scientific Reports, 2022, 12, 4505.	3.3	22
15	Stable Isotope Geochemistry of the Organic Elements within Shales and Crude Oils: A Comprehensive Review. Molecules, 2022, 27, 34.	3.8	3
16	Integrating advanced soft computing techniques with experimental studies for pore structure analysis of Qingshankou shale in Southern Songliao Basin, NE China. International Journal of Coal Geology, 2022, 257, 103998.	5.0	20
17	TGA and elemental analysis of type II kerogen from the Bakken supported by HRTEM. Journal of Natural Gas Science and Engineering, 2022, 103, 104606.	4.4	7
18	Modeling of Brine/CO2/Mineral Wettability Using Gene Expression Programming (GEP): Application to Carbon Geo-Sequestration. Minerals (Basel, Switzerland), 2022, 12, 760.	2.0	2

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19	An insight into CO2 sequestration and EGR in Longmaxi and Niutitang shale formations via experimental analysis. Fuel, 2022, 324, 124776.	6.4	6
20	Compositional Modeling of the Oil Formation Volume Factor of Crude Oil Systems: Application of Intelligent Models and Equations of State. ACS Omega, 2022, 7, 24256-24273.	3.5	4
21	Creep Behavior of Shale: Nanoindentation vs. Triaxial Creep Tests. Rock Mechanics and Rock Engineering, 2021, 54, 321-335.	5.4	28
22	Effective fractures and their contribution to the reservoirs in deep tight sandstones in the Kuqa Depression, Tarim Basin, China. Marine and Petroleum Geology, 2021, 124, 104824.	3.3	15
23	Pore structure and adsorption hysteresis of the middle Jurassic Xishanyao shale formation in the Southern Junggar Basin, northwest China. Energy Exploration and Exploitation, 2021, 39, 761-778.	2.3	28
24	Evaluation of 3D printed microfluidic networks to study fluid flow in rocks. Oil and Gas Science and Technology, 2021, 76, 50.	1.4	3
25	Prediction of Dead Oil Viscosity: Machine Learning vs. Classical Correlations. Energies, 2021, 14, 930.	3.1	28
26	1D mechanical earth modeling in the Permian Lucaogou Shale of the Santanghu Basin, Northwest China, from a complete set of laboratory data. Interpretation, 2021, 9, T357-T372.	1.1	4
27	Pore Structure Alteration of Organic-Rich Shale with Sc-CO₂ Exposure: the Bakken Formation. Energy & Fuels, 2021, 35, 5074-5089.	5.1	20
28	Prediction of Water Saturation from Well Log Data by Machine Learning Algorithms: Boosting and Super Learner. Journal of Marine Science and Engineering, 2021, 9, 666.	2.6	16
29	Sulfur Differentiation in Organic-Rich Shales and Carbonates via Open-System Programmed Pyrolysis and Oxidation: Insights into Fluid Souring and H₂S Production in the Bakken Shale, United States. Energy & Fuels, 2021, 35, 12030-12044.	5.1	17
30	Joint optimization of constrained well placement and control parameters using teaching-learning based optimization and an inter-distance algorithm. Journal of Petroleum Science and Engineering, 2021, 203, 108652.	4.2	14
31	Experimental Investigation of Solid Organic Matter with a 2D NMR T₁â€“T₂ Map. Energy & Fuels, 2021, 35, 15709-15720.	5.1	4
32	Experimental Measurement and Equilibrium Modeling of Adsorption of Asphaltenes from Various Origins onto the Magnetite Surface under Static and Dynamic Conditions. ACS Omega, 2021, 6, 24256-24268.	3.5	10
33	AFM vs. Nanoindentation: Nanomechanical properties of organic-rich Shale. Marine and Petroleum Geology, 2021, 132, 105229.	3.3	18
34	Reassessment of CO2 sequestration in tight reservoirs and associated formations. Journal of Petroleum Science and Engineering, 2021, 206, 109071.	4.2	26
35	From excess to absolute adsorption isotherm: The effect of the adsorbed density. Chemical Engineering Journal, 2021, 425, 131495.	12.7	31
36	Organic geochemistry, oil-source rock, and oil-oil correlation study in a major oilfield in the Middle East. Journal of Petroleum Science and Engineering, 2021, 207, 109074.	4.2	15

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37	Comparison of fractal dimensions from nitrogen adsorption data in shale via different models. RSC Advances, 2021, 11, 2298-2306.	3.6	25
38	Determination of Clay Bound Water in Shales from NMR Signals: The Fractal Theory. Energy & Fuels, 2021, 35, 18406-18413.	5.1	8
39	Measurement of Solubility of CO2 in NaCl, CaCl2, MgCl2 and MgCl2 + CaCl2 Brines at Temperatures from 298 to 373 K and Pressures up to 20 MPa Using the Potentiometric Titration Method. Energies, 2021, 14, 7222.	3.1	14
40	Understanding the creep behavior of shale via nano-DMA method. Energy Reports, 2021, 7, 7478-7487.	5.1	5
41	Joint optimization of constrained well placement and control parameters with a quantum-inspired cell-based quality gate function. Journal of Petroleum Science and Engineering, 2021, 209, 109854.	4.2	5
42	Theoretical Prediction of the Occurrence of Gas Hydrate Stability Zones: A Case Study of the Mohe Basin, Northeast China. ACS Omega, 2021, 6, 35810-35820.	3.5	2
43	Chemical heterogeneity of organic matter at nanoscale by AFM-based IR spectroscopy. Fuel, 2020, 261, 116454.	6.4	22
44	A comparison study of the unloading behavior in shale samples in nanoindentation experiments using different models. Journal of Petroleum Science and Engineering, 2020, 186, 106715.	4.2	13
45	Sedimentary architecture of hyperpycnal flow deposits: Cretaceous Sangyuan outcrop, from the Luanping Basin, North East China. Marine and Petroleum Geology, 2020, 121, 104593.	3.3	5
46	Flow modeling in shale gas reservoirs: A comprehensive review. Journal of Natural Gas Science and Engineering, 2020, 83, 103535.	4.4	37
47	Diffusivity and hydrophobic hydration of hydrocarbons in supercritical CO₂ and aqueous brine. RSC Advances, 2020, 10, 37938-37946.	3.6	3
48	A new model to estimate permeability using mercury injection capillary pressure data: Application to carbonate and shale samples. Journal of Natural Gas Science and Engineering, 2020, 84, 103691.	4.4	20
49	Backtracking to Parent Maceral from Produced Bitumen with Raman Spectroscopy. Minerals (Basel,) Tj ETQq1 1 0.784314 rgBT /Over	2.0	7
50	Natural Fractures in Carbonate Basement Reservoirs of the Jizhong Sub-Basin, Bohai Bay Basin, China: Key Aspects Favoring Oil Production. Energies, 2020, 13, 4635.	3.1	15
51	Pd modified prussian blue frameworks: Multiple electron transfer pathways for improving catalytic activity toward hydrogenation of nitroaromatics. Molecular Catalysis, 2020, 492, 110967.	2.0	26
52	Bacterial vs. thermal degradation of algal matter: Analysis from a physicochemical perspective. International Journal of Coal Geology, 2020, 223, 103465.	5.0	10
53	Natural fractures in metamorphic basement reservoirs in the Liaohe Basin, China. Marine and Petroleum Geology, 2020, 119, 104479.	3.3	17
54	Adsorption based realistic molecular model of amorphous kerogen. RSC Advances, 2020, 10, 23312-23320.	3.6	14

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55	Preliminary Investigation of the Effects of Thermal Maturity on Redox-Sensitive Trace Metal Concentration in the Bakken Source Rock, North Dakota, USA. ACS Omega, 2020, 5, 7135-7148.	3.5	12
56	Natural fractures in deep tight gas sandstone reservoirs in the thrust belt of the southern Junggar Basin, northwestern China. Interpretation, 2020, 8, SP81-SP93.	1.1	6
57	A new framework for selection of representative samples for special core analysis. Petroleum Research, 2020, 5, 210-226.	2.7	20
58	Structural Evolution of Organic Matter in Deep Shales by Spectroscopy (¹H and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 627	5.1	25
59	Hydrocarbon saturation in shale oil reservoirs by inversion of dielectric dispersion logs. Fuel, 2020, 266, 116934.	6.4	17
60	A chemo-mechanical snapshot of in-situ conversion of kerogen to petroleum. Geochimica Et Cosmochimica Acta, 2020, 273, 37-50.	3.9	14
61	A cost-effective chemo-thermo-poroelastic wellbore stability model for mud weight design during drilling through shale formations. Journal of Rock Mechanics and Geotechnical Engineering, 2020, 12, 768-779.	8.1	16
62	Molecular weight variations of kerogen during maturation with MALDI-TOF-MS. Fuel, 2020, 269, 117452.	6.4	25
63	Petrophysical characteristics and log identification of lacustrine shale lithofacies: A case study of the first member of Qingshankou Formation in the Songliao Basin, Northeast China. Interpretation, 2020, 8, SL45-SL57.	1.1	14
64	Natural fractures in tight gas volcanic reservoirs and their influences on production in the Xujiaweizi depression, Songliao Basin, China. AAPG Bulletin, 2020, 104, 2099-2123.	1.5	14
65	NMR relaxometry a new approach to detect geochemical properties of organic matter in tight shales. Fuel, 2019, 235, 167-177.	6.4	68
66	Fractal and Multifractal Characteristics of Pore Throats in the Bakken Shale. Transport in Porous Media, 2019, 126, 579-598.	2.6	34
67	Optimal Separation of CO₂/CH₄/Brine with Amorphous Kerogen: A Thermodynamics and Kinetics Study. Journal of Physical Chemistry C, 2019, 123, 20877-20883.	3.1	15
68	Layered metalâ€“organic framework based on tetracyanonickelate as a cathode material for in situ Li-ion storage. RSC Advances, 2019, 9, 21363-21370.	3.6	32
69	Coordinating gallium hexacyanocobaltate: Prussian blue-based nanomaterial for Li-ion storage. RSC Advances, 2019, 9, 26668-26675.	3.6	28
70	Experimental Study on the Impact of Thermal Maturity on Shale Microstructures Using Hydrous Pyrolysis. Energy & Fuels, 2019, 33, 9702-9719.	5.1	25
71	Graphite carbon-encapsulated metal nanoparticles derived from Prussian blue analogs growing on natural loofa as cathode materials for rechargeable aluminum-ion batteries. Scientific Reports, 2019, 9, 13665.	3.3	23
72	Geomechanical Upscaling Methods: Comparison and Verification via 3D Printing. Energies, 2019, 12, 382.	3.1	21

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73	Nanoscale Pore Structure Characterization of Tight Oil Formation: A Case Study of the Bakken Formation. Energy & Fuels, 2019, 33, 6008-6019.	5.1	21
74	New technique of True Effective Mobility (TEM-Function) in dynamic rock typing: Reduction of uncertainties in relative permeability data for reservoir simulation. Journal of Petroleum Science and Engineering, 2019, 179, 210-227.	4.2	32
75	Understanding organic matter heterogeneity and maturation rate by Raman spectroscopy. International Journal of Coal Geology, 2019, 206, 46-64.	5.0	33
76	Correlating Rock-Evalâ„¢ Tmax with bitumen reflectance from organic petrology in the Bakken Formation. International Journal of Coal Geology, 2019, 205, 87-104.	5.0	44
77	Timeâ€frequency decomposition of seismic signals via quantum swarm evolutionary matching pursuit. Geophysical Prospecting, 2019, 67, 1701-1719.	1.9	10
78	Estimation of thermal maturity in the Bakken source rock from a combination of well logs, North Dakota, USA. Marine and Petroleum Geology, 2019, 105, 32-44.	3.3	11
79	Characterizing Pore Size Distributions of Shale. , 2019, , 3-20.		7
80	A comprehensive pore structure study of the Bakken Shale with SANS, N2 adsorption and mercury intrusion. Fuel, 2019, 245, 274-285.	6.4	106
81	Refracturing: well selection, treatment design, and lessons learnedâ€”a review. Arabian Journal of Geosciences, 2019, 12, 1.	1.3	8
82	Nanoscale mechanical properties of 3D printed gypsum-powder-based rocks by nanoindentation and numerical modeling. Rapid Prototyping Journal, 2019, 25, 1295-1308.	3.2	2
83	Estimating thermal maturity of organic-rich shale from well logs: Case studies of two shale plays. Fuel, 2019, 235, 1195-1206.	6.4	35
84	Abnormal behavior during nanoindentation holding stage: Characterization and explanation. Journal of Petroleum Science and Engineering, 2019, 173, 733-747.	4.2	13
85	Nanopore structure comparison between shale oil and shale gas: examples from the Bakken and Longmaxi Formations. Petroleum Science, 2019, 16, 77-93.	4.9	42
86	Image analysis of the pore structures: An intensive study for Middle Bakken. Journal of Natural Gas Science and Engineering, 2019, 61, 32-45.	4.4	13
87	Multi-scale assessment of mechanical properties of organic-rich shales: A coupled nanoindentation, deconvolution analysis, and homogenization method. Journal of Petroleum Science and Engineering, 2019, 174, 80-91.	4.2	36
88	Microstructure characteristics and fractal analysis of 3D-printed sandstone using micro-CT and SEM-EDS. Journal of Petroleum Science and Engineering, 2019, 175, 1039-1048.	4.2	48
89	A further verification of FZI* and PSRTI: Newly developed petrophysical rock typing indices. Journal of Petroleum Science and Engineering, 2019, 175, 693-705.	4.2	44
90	Multifractal Characteristics of MIP-Based Pore Size Distribution of 3D-Printed Powder-Based Rocks: A Study of Post-Processing Effect. Transport in Porous Media, 2019, 129, 599-618.	2.6	21

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91	Multi-scale evaluation of mechanical properties of the Bakken shale. Journal of Materials Science, 2019, 54, 2133-2151.	3.7	43
92	Study on array laterolog response simulation and mud-filtrate invasion correction. Advances in Geo-Energy Research, 2019, 3, 175-186.	6.0	9
93	The impact of pore size distribution data presentation format on pore structure interpretation of shales. Advances in Geo-Energy Research, 2019, 3, 187-197.	6.0	56
94	Evaluating the Impact of Mechanical Properties of Kerogen on Hydraulic Fracturing of Organic Rich Formations. , 2018, , .		8
95	A geomechanical study of Bakken Formation considering the anisotropic behavior of shale layers. Journal of Petroleum Science and Engineering, 2018, 165, 567-574.	4.2	9
96	Characterization of geochemical properties and microstructures of the Bakken Shale in North Dakota. International Journal of Coal Geology, 2018, 190, 84-98.	5.0	30
97	Organofacies study of the Bakken source rock in North Dakota, USA, based on organic petrology and geochemistry. International Journal of Coal Geology, 2018, 188, 79-93.	5.0	58
98	Nano-dynamic mechanical analysis (nano-DMA) of creep behavior of shales: Bakken case study. Journal of Materials Science, 2018, 53, 4417-4432.	3.7	47
99	Evaluating Single-Parameter parabolic failure criterion in wellbore stability analysis. Journal of Natural Gas Science and Engineering, 2018, 50, 166-180.	4.4	16
100	Pore characterization of 3D-printed gypsum rocks: a comprehensive approach. Journal of Materials Science, 2018, 53, 5063-5078.	3.7	92
101	Application of nanoindentation to characterize creep behavior of oil shales. Journal of Petroleum Science and Engineering, 2018, 167, 729-736.	4.2	46
102	Statistical grid nanoindentation analysis to estimate macro-mechanical properties of the Bakken Shale. Journal of Natural Gas Science and Engineering, 2018, 53, 181-190.	4.4	69
103	Multifractal analysis of gas adsorption isotherms for pore structure characterization of the Bakken Shale. Fuel, 2018, 219, 296-311.	6.4	84
104	A new approach in petrophysical rock typing. Journal of Petroleum Science and Engineering, 2018, 166, 445-464.	4.2	97
105	Raman spectroscopy to study thermal maturity and elastic modulus of kerogen. International Journal of Coal Geology, 2018, 185, 103-118.	5.0	91
106	Characterization and Consecutive Prediction of Pore Structures in Tight Oil Reservoirs. Energies, 2018, 11, 2705.	3.1	10
107	Application of PeakForce tapping mode of atomic force microscope to characterize nanomechanical properties of organic matter of the Bakken Shale. Fuel, 2018, 233, 894-910.	6.4	66
108	Nanomechanical characterization of organic matter in the Bakken formation by microscopy-based method. Marine and Petroleum Geology, 2018, 96, 128-138.	3.3	58

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109	Evaluating Molecular Evolution of Kerogen by Raman Spectroscopy: Correlation with Optical Microscopy and Rock-Eval Pyrolysis. Energies, 2018, 11, 1406.	3.1	36
110	Nano-mechanical Properties. SpringerBriefs in Petroleum Geoscience & Engineering, 2018, , 71-89.	0.3	0
111	Geochemical Properties. SpringerBriefs in Petroleum Geoscience & Engineering, 2018, , 57-70.	0.3	0
112	A preliminary optimization of borehole microseismic array design with a multiple criteria decision analysis. Journal of Applied Geophysics, 2018, 157, 87-95.	2.1	1
113	Can 3-D Printed Gypsum Samples Replicate Natural Rocks? An Experimental Study. Rock Mechanics and Rock Engineering, 2018, 51, 3061-3074.	5.4	54
114	Nanopore structures of isolated kerogen and bulk shale in Bakken Formation. Fuel, 2018, 226, 441-453.	6.4	52
115	Estimating permeability of shale-gas reservoirs from porosity and rock compositions. Geophysics, 2018, 83, MR283-MR294.	2.6	34
116	Multifractal characteristics of Longmaxi Shale pore structures by N2 adsorption: A model comparison. Journal of Petroleum Science and Engineering, 2018, 168, 330-341.	4.2	55
117	Pore Structures. SpringerBriefs in Petroleum Geoscience & Engineering, 2018, , 17-56.	0.3	0
118	Quantification of the microstructures of Bakken shale reservoirs using multi-fractal and lacunarity analysis. Journal of Natural Gas Science and Engineering, 2017, 39, 62-71.	4.4	61
119	Microstructural and geomechanical analysis of Bakken shale at nanoscale. Journal of Petroleum Science and Engineering, 2017, 153, 133-144.	4.2	80
120	Quantification of the Microstructure Heterogeneities of Bakken Shale Reservoirs from Multi-Fractal Analysis. , 2017, , .		0
121	Multi-scale fractal analysis of pores in shale rocks. Journal of Applied Geophysics, 2017, 140, 1-10.	2.1	56
122	Nanoscale pore structure characterization of the Bakken shale in the USA. Fuel, 2017, 209, 567-578.	6.4	221
123	Integrated Reservoir Characterization of the Middle Bakken in the Blue Buttes Field, Williston Basin, North Dakota. , 2017, , .		4
124	Microstructures and Geochemical Characteristics of Bakken Shale Formations. , 2017, , .		0
125	Quantifying the Nano-Mechanical Signature of Shale Oil Formations by Grid Nanoindentation. , 2017, , .		4
126	Nanochemo-mechanical characterization of organic shale through AFM and EDS. , 2017, , .		12

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127	Potential Application of Atomic Force Microscopy in Characterization of Nano-pore Structures of Bakken Formation. , 2016, , .		5
128	Pore Structure Analysis by Using Atomic Force Microscopy. , 2016, , .		7
129	Applications of nano-indentation methods to estimate nanoscale mechanical properties of shale reservoir rocks. Journal of Natural Gas Science and Engineering, 2016, 35, 1310-1319.	4.4	150
130	Multiscale characterization of pore structures of shale: quantification from SEM image analysis. , 2016, , .		1
131	A Multidisciplinary Study of Stimulation Designs in the Three Forks Formation, ND. , 2015, , .		0
132	Incorporating Geomechanics into the Decline-Curve Analysis of Naturally Fractured Reservoirs. , 2011, , .		0
133	Proper Experimental Parameters in N2 Adsorption: The Effects of Data Points and Equilibrium Interval Time. Energy & Fuels, 0, , .	5.1	3