

Martin J Blunt

List of Publications by Year in descending order

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389
papers

30,701
citations

4103

90
h-index

7043

159
g-index

399
all docs

399
docs citations

399
times ranked

13861
citing authors

#	ARTICLE	IF	CITATIONS
1	Crossflow effects on low salinity displacement in stratified heterogeneity. Journal of Petroleum Science and Engineering, 2022, 208, 109565.	2.1	1
2	Flow in Porous Media in the Energy Transition. Engineering, 2022, 14, 10-14.	3.2	2
3	New type of pore-snap-off and displacement correlations in imbibition. Journal of Colloid and Interface Science, 2022, 609, 384-392.	5.0	18
4	Nonlinear multiphase flow in hydrophobic porous media. Journal of Fluid Mechanics, 2022, 934, .	1.4	9
5	Pore-scale imaging of asphaltene deposition with permeability reduction and wettability alteration. Fuel, 2022, 316, 123202.	3.4	9
6	Minimal Surfaces in Porous Materials: X-Ray Image-Based Measurement of the Contact Angle and Curvature in Gas Diffusion Layers to Design Optimal Performance of Fuel Cells. ACS Applied Energy Materials, 2022, 5, 4613-4621.	2.5	13
7	Fluid " Fluid Interfacial Area and Its Impact on Relative Permeability - A Pore Network Modeling Study. , 2022, , .		2
8	Quantitative determination of the threshold pressure for a discontinuous phase to pass through a constriction using microscale simulation. International Journal of Multiphase Flow, 2022, 153, 104107.	1.6	7
9	Characterization of Water Transport in Porous Building Materials Based on an Analytical Spontaneous Imbibition Model. Transport in Porous Media, 2022, 143, 417-432.	1.2	4
10	Generalized network modelling of two-phase flow in a water-wet and mixed-wet reservoir sandstone: Uncertainty and validation with experimental data. Advances in Water Resources, 2022, 164, 104194.	1.7	6
11	Experimental study of electrical heating to enhance oil production from oil-wet carbonate reservoirs. Fuel, 2022, 324, 124559.	3.4	14
12	Pore-scale processes in tertiary low salinity waterflooding in a carbonate rock: Micro-dispersions, water film growth, and wettability change. Journal of Colloid and Interface Science, 2022, 628, 486-498.	5.0	6
13	Red Noise in Steady-State Multiphase Flow in Porous Media. Water Resources Research, 2022, 58, .	1.7	7
14	Determination of contact angles for three-phase flow in porous media using an energy balance. Journal of Colloid and Interface Science, 2021, 582, 283-290.	5.0	16
15	Pore-scale imaging of asphaltene-induced pore clogging in carbonate rocks. Fuel, 2021, 283, 118871.	3.4	22
16	Predictive Modeling of Relative Permeability Using a Generalized Equation of State. SPE Journal, 2021, 26, 191-205.	1.7	12
17	Pore-scale analysis of formation damage; A review of existing digital and analytical approaches. Advances in Colloid and Interface Science, 2021, 288, 102345.	7.0	15
18	Dynamic fluid configurations in steady-state two-phase flow in Bentheimer sandstone. Physical Review E, 2021, 103, 013110.	0.8	13

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19	Poromechanical controls on spontaneous imbibition in earth materials. <i>Scientific Reports</i> , 2021, 11, 3328.	1.6	9
20	Pore-scale characterization of carbon dioxide storage at immiscible and near-miscible conditions in altered-wettability reservoir rocks. <i>International Journal of Greenhouse Gas Control</i> , 2021, 105, 103232.	2.3	25
21	Acknowledgement of Reviewers for 2020. <i>Transport in Porous Media</i> , 2021, 137, 283-286.	1.2	0
22	Quantification of Nonlinear Multiphase Flow in Porous Media. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL090477.	1.5	33
23	A continuous time random walk method to predict dissolution in porous media based on validation of experimental NMR data. <i>Advances in Water Resources</i> , 2021, 149, 103847.	1.7	5
24	The development of intermittent multiphase fluid flow pathways through a porous rock. <i>Advances in Water Resources</i> , 2021, 150, 103868.	1.7	16
25	Deep learning in pore scale imaging and modeling. <i>Earth-Science Reviews</i> , 2021, 215, 103555.	4.0	90
26	Pore-Scale Imaging and Analysis of Wettability Order, Trapping and Displacement in Three-Phase Flow in Porous Media with Various Wettabilities. <i>Transport in Porous Media</i> , 2021, 140, 59-84.	1.2	32
27	Pore-scale modelling and sensitivity analyses of hydrogen-brine multiphase flow in geological porous media. <i>Scientific Reports</i> , 2021, 11, 8348.	1.6	103
28	Pore-scale imaging of displacement patterns in an altered-wettability carbonate. <i>Chemical Engineering Science</i> , 2021, 235, 116464.	1.9	26
29	Pore-by-Pore Modelling, Validation and Prediction of Waterflooding in Oil-Wet Rocks Using Dynamic Synchrotron Data. <i>Transport in Porous Media</i> , 2021, 138, 285-308.	1.2	14
30	Direct Numerical Simulation of Pore-Scale Trapping Events During Capillary-Dominated Two-Phase Flow in Porous Media. <i>Transport in Porous Media</i> , 2021, 138, 443-458.	1.2	28
31	Advances in multiscale numerical and experimental approaches for multiphysics problems in porous media. <i>Advances in Geo-Energy Research</i> , 2021, 5, 233-238.	3.1	24
32	<i>Operando</i> Liquid Pressure Determination in Polymer Electrolyte Fuel Cells. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 34003-34011.	4.0	15
33	Pore-scale imaging and analysis of low salinity waterflooding in a heterogeneous carbonate rock at reservoir conditions. <i>Scientific Reports</i> , 2021, 11, 15063.	1.6	25
34	Drainage Capillary Pressure Distribution and Fluid Displacement in a Heterogeneous Laminated Sandstone. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL093604.	1.5	7
35	Wettability Characterization from Pore-Scale Images Using Topology and Energy Balance with Implications for Recovery and Storage. , 2021, , .		2
36	Pore-Scale Imaging of Tertiary Low Salinity Waterflooding in a Heterogeneous Carbonate Rock at Reservoir Conditions. , 2021, , .		1

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37	Assessment of CO ₂ geological storage capacity of saline aquifers under the North Sea. <i>International Journal of Greenhouse Gas Control</i> , 2021, 111, 103463.	2.3	12
38	The human exposome and health in the Anthropocene. <i>International Journal of Epidemiology</i> , 2021, 50, 378-389.	0.9	24
39	A hybrid of statistical and conditional generative adversarial neural network approaches for reconstruction of 3D porous media (ST-CGAN). <i>Advances in Water Resources</i> , 2021, 158, 104064.	1.7	16
40	Disconnected Gas Transport in Steady-State Three-Phase Flow. <i>Water Resources Research</i> , 2021, 57, e2021WR031147.	1.7	11
41	A salinity cut-off method to control numerical dispersion in low-salinity waterflooding simulation. <i>Journal of Petroleum Science and Engineering</i> , 2020, 184, 106586.	2.1	3
42	Stochastic Seismic Waveform Inversion Using Generative Adversarial Networks as a Geological Prior. <i>Mathematical Geosciences</i> , 2020, 52, 53-79.	1.4	127
43	Coupled generative adversarial and auto-encoder neural networks to reconstruct three-dimensional multi-scale porous media. <i>Journal of Petroleum Science and Engineering</i> , 2020, 186, 106794.	2.1	61
44	Dynamics of enhanced gas trapping applied to CO ₂ storage in the presence of oil using synchrotron X-ray micro tomography. <i>Applied Energy</i> , 2020, 259, 114136.	5.1	46
45	Deformation bands and their impact on fluid flow: Insights from geometrical modelling and multi-scale flow simulations in sandstones. <i>Journal of Structural Geology</i> , 2020, 141, 104215.	1.0	11
46	Pore-scale imaging with measurement of relative permeability and capillary pressure on the same reservoir sandstone sample under water-wet and mixed-wet conditions. <i>Advances in Water Resources</i> , 2020, 146, 103786.	1.7	37
47	Real-time Imaging Reveals Distinct Pore-scale Dynamics During Transient and Equilibrium Subsurface Multiphase Flow. <i>Water Resources Research</i> , 2020, 56, e2020WR028287.	1.7	22
48	Pore-by-pore modeling, analysis, and prediction of two-phase flow in mixed-wet rocks. <i>Physical Review E</i> , 2020, 102, 023302.	0.8	27
49	Advances in carbon capture, utilization and storage. <i>Applied Energy</i> , 2020, 278, 115627.	5.1	135
50	Dynamics of fluid displacement in mixed-wet porous media. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2020, 476, 20200040.	1.0	25
51	Predictive Modeling of Relative Permeability using a Generalized Equation-of-State. , 2020, , .		1
52	In Situ Characterization of Three-Phase Flow in Mixed-Wet Porous Media Using Synchrotron Imaging. <i>Water Resources Research</i> , 2020, 56, e2020WR027873.	1.7	17
53	Dynamics of water injection in an oil-wet reservoir rock at subsurface conditions: Invasion patterns and pore-filling events. <i>Physical Review E</i> , 2020, 102, 023110.	0.8	23
54	Multispecies Reactive Transport in a Microporous Rock: Impact of Flow Heterogeneity and Reversibility of Reaction. <i>Water Resources Research</i> , 2020, 56, e2020WR027317.	1.7	5

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55	Evaluation of methods using topology and integral geometry to assess wettability. Journal of Colloid and Interface Science, 2020, 576, 99-108.	5.0	17
56	Pore-scale X-ray imaging with measurement of relative permeability, capillary pressure and oil recovery in a mixed-wet micro-porous carbonate reservoir rock. Fuel, 2020, 268, 117018.	3.4	64
57	Pore-scale numerical simulation of low salinity water flooding using the lattice Boltzmann method. Journal of Colloid and Interface Science, 2020, 566, 444-453.	5.0	51
58	Using energy balance to determine pore-scale wettability. Journal of Colloid and Interface Science, 2020, 576, 486-495.	5.0	19
59	Droplet and Percolation Network Interactions in a Fuel Cell Gas Diffusion Layer. Journal of the Electrochemical Society, 2020, 167, 084506.	1.3	24
60	Local Capillary Pressure Estimation Based on Curvature of the Fluid Interface – Validation with Two-Phase Direct Numerical Simulations. E3S Web of Conferences, 2020, 146, 04003.	0.2	1
61	Verifying Pore Network Models of Imbibition in Rocks Using Time-Resolved Synchrotron Imaging. Water Resources Research, 2020, 56, e2019WR026587.	1.7	27
62	Pore-scale mechanisms of CO ₂ storage in oilfields. Scientific Reports, 2020, 10, 8534.	1.6	31
63	Three-phase flow displacement dynamics and Haines jumps in a hydrophobic porous medium. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200671.	1.0	10
64	Pore-scale dynamics and the multiphase Darcy law. Physical Review Fluids, 2020, 5, .	1.0	46
65	Validating the Generalized Pore Network Model Using Micro-CT Images of Two-Phase Flow. Transport in Porous Media, 2019, 130, 405-424.	1.2	36
66	Quantification of Uncertainty and Best Practice in Computing Interfacial Curvature from Complex Pore Space Images. Materials, 2019, 12, 2138.	1.3	24
67	Intermittent fluid connectivity during two-phase flow in a heterogeneous carbonate rock. Physical Review E, 2019, 100, 043103.	0.8	33
68	In situ pore-scale analysis of oil recovery during three-phase near-miscible CO ₂ injection in a water-wet carbonate rock. Advances in Water Resources, 2019, 134, 103432.	1.7	32
69	Mechanisms of Microscopic Displacement During Enhanced Oil Recovery in Mixed-Wet Rocks Revealed Using Direct Numerical Simulation. Transport in Porous Media, 2019, 130, 731-749.	1.2	12
70	Mechanisms controlling fluid breakup and reconnection during two-phase flow in porous media. Physical Review E, 2019, 100, 043115.	0.8	19
71	iSCAL for Complete Rock Characterization: Using Pore-Scale Imaging to Determine Relative Permeability and Capillary Pressure. , 2019, , .		2
72	The Decomposition of Volumetric Sweep Efficiency and Its Utility. , 2019, , .		0

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73	Minimal surfaces in porous media: Pore-scale imaging of multiphase flow in an altered-wettability Bentheimer sandstone. <i>Physical Review E</i> , 2019, 99, 063105.	0.8	98
74	A review of the phenomenon of counter-current spontaneous imbibition: Analysis and data interpretation. <i>Journal of Petroleum Science and Engineering</i> , 2019, 180, 456-470.	2.1	68
75	A thermodynamically consistent characterization of wettability in porous media using high-resolution imaging. <i>Journal of Colloid and Interface Science</i> , 2019, 552, 59-65.	5.0	69
76	The Effect of Mixed Wettability on Pore-Scale Flow Regimes Based on a Flooding Experiment in Ketton Limestone. <i>Geophysical Research Letters</i> , 2019, 46, 3225-3234.	1.5	76
77	The architectural design of smart ventilation and drainage systems in termite nests. <i>Science Advances</i> , 2019, 5, eaat8520.	4.7	35
78	Modelling of multispecies reactive transport on pore-space images. <i>Advances in Water Resources</i> , 2019, 127, 192-208.	1.7	15
79	Pore occupancy, relative permeability and flow intermittency measurements using X-ray micro-tomography in a complex carbonate. <i>Advances in Water Resources</i> , 2019, 129, 56-69.	1.7	58
80	Pore-Scale Dissolution by CO ₂ Saturated Brine in a Multimineral Carbonate at Reservoir Conditions: Impact of Physical and Chemical Heterogeneity. <i>Water Resources Research</i> , 2019, 55, 3171-3193.	1.7	49
81	Modeling Oil Recovery in Mixed-Wet Rocks: Pore-Scale Comparison Between Experiment and Simulation. <i>Transport in Porous Media</i> , 2019, 127, 393-414.	1.2	64
82	Capillary-Dominated Fluid Displacement in Porous Media. <i>Annual Review of Fluid Mechanics</i> , 2019, 51, 429-449.	10.8	109
83	Calibration of astigmatic particle tracking velocimetry based on generalized Gaussian feature extraction. <i>Advances in Water Resources</i> , 2019, 124, 1-8.	1.7	12
84	4D in situ synchrotron X-ray tomographic microscopy and laser-based heating study of oil shale pyrolysis. <i>Applied Energy</i> , 2019, 235, 1468-1475.	5.1	66
85	An Introduction to Subsurface CO ₂ Storage. <i>RSC Energy and Environment Series</i> , 2019, , 238-295.	0.2	7
86	A New Waterflood Initialization Protocol With Wettability Alteration for Pore-Scale Multiphase Flow Experiments. <i>Petrophysics</i> , 2019, 60, 264-272.	0.2	9
87	Generalized network modeling of capillary-dominated two-phase flow. <i>Physical Review E</i> , 2018, 97, 023308.	0.8	57
88	4D multi-scale imaging of reactive flow in carbonates: Assessing the impact of heterogeneity on dissolution regimes using streamlines at multiple length scales. <i>Chemical Geology</i> , 2018, 481, 27-37.	1.4	60
89	Wetting boundary condition for the color-gradient lattice Boltzmann method: Validation with analytical and experimental data. <i>Advances in Water Resources</i> , 2018, 116, 56-66.	1.7	84
90	Reservoir-condition pore-scale imaging of dolomite reaction with supercritical CO ₂ acidified brine: Effect of pore-structure on reaction rate using velocity distribution analysis. <i>International Journal of Greenhouse Gas Control</i> , 2018, 68, 99-111.	2.3	52

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91	A numerical model of two-phase flow at the micro-scale using the volume-of-fluid method. Journal of Computational Physics, 2018, 357, 159-182.	1.9	77
92	Multiphase Flow Characteristics of Heterogeneous Rocks From CO_2 Storage Reservoirs in the United Kingdom. Water Resources Research, 2018, 54, 729-745.	1.7	48
93	Stochastic Reconstruction of an Oolitic Limestone by Generative Adversarial Networks. Transport in Porous Media, 2018, 125, 81-103.	1.2	112
94	A study to investigate viscous coupling effects on the hydraulic conductance of fluid layers in two-phase flow at the pore level. Journal of Colloid and Interface Science, 2018, 522, 299-310.	5.0	22
95	Estimation of relative permeability and capillary pressure from mass imbibition experiments. Advances in Water Resources, 2018, 115, 88-94.	1.7	37
96	Optimization of image quality and acquisition time for lab-based X-ray microtomography using an iterative reconstruction algorithm. Advances in Water Resources, 2018, 115, 112-124.	1.7	12
97	Modelling and upscaling of transport in carbonates during dissolution: Validation and calibration with NMR experiments. Journal of Contaminant Hydrology, 2018, 212, 85-95.	1.6	9
98	Large-scale Invasion Percolation with Trapping for Upscaling Capillary-Controlled Darcy-scale Flow. Transport in Porous Media, 2018, 121, 479-506.	1.2	8
99	Three-Phase Flow Visualization and Characterization for a Mixed-Wet Carbonate Rock. , 2018, , .		4
100	In situ characterization of immiscible three-phase flow at the pore scale for a water-wet carbonate rock. Advances in Water Resources, 2018, 121, 446-455.	1.7	72
101	Spatial Correlation of Contact Angle and Curvature in Pore-Space Images. Water Resources Research, 2018, 54, 6133-6152.	1.7	36
102	Pore-scale Imaging and Characterization of Hydrocarbon Reservoir Rock Wettability at Subsurface Conditions Using X-ray Microtomography. Journal of Visualized Experiments, 2018, , .	0.2	8
103	Partial dissolution of carbonate rock grains during reactive CO_2 -saturated brine injection under reservoir conditions. Advances in Water Resources, 2018, 122, 27-36.	1.7	34
104	Imaging and Measurement of Pore-Scale Interfacial Curvature to Determine Capillary Pressure Simultaneously With Relative Permeability. Water Resources Research, 2018, 54, 7046-7060.	1.7	87
105	Validation of model predictions of pore-scale fluid distributions during two-phase flow. Physical Review E, 2018, 97, 053104.	0.8	72
106	Wettability in complex porous materials, the mixed-wet state, and its relationship to surface roughness. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8901-8906.	3.3	153
107	Time-resolved synchrotron X-ray micro-tomography datasets of drainage and imbibition in carbonate rocks. Scientific Data, 2018, 5, 180265.	2.4	23
108	Model-free classification of X-ray scattering signals applied to image segmentation. Journal of Applied Crystallography, 2018, 51, 1378-1386.	1.9	11

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109	Dynamic reservoir-condition microtomography of reactive transport in complex carbonates: Effect of initial pore structure and initial brine pH. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 204, 267-285.	1.6	66
110	Automatic method for estimation of in situ effective contact angle from X-ray micro tomography images of two-phase flow in porous media. <i>Journal of Colloid and Interface Science</i> , 2017, 496, 51-59.	5.0	123
111	The impact of capillary backpressure on spontaneous counter-current imbibition in porous media. <i>Advances in Water Resources</i> , 2017, 107, 405-420.	1.7	19
112	An improved pore-network model including viscous coupling effects using direct simulation by the lattice Boltzmann method. <i>Advances in Water Resources</i> , 2017, 100, 26-34.	1.7	53
113	Microstructural imaging and characterization of oil shale before and after pyrolysis. <i>Fuel</i> , 2017, 197, 562-574.	3.4	123
114	Reaction Rates in Chemically Heterogeneous Rock: Coupled Impact of Structure and Flow Properties Studied by X-ray Microtomography. <i>Environmental Science & Technology</i> , 2017, 51, 4108-4116.	4.6	55
115	Reconstruction of three-dimensional porous media using generative adversarial neural networks. <i>Physical Review E</i> , 2017, 96, 043309.	0.8	294
116	In situ characterization of mixed-wettability in a reservoir rock at subsurface conditions. <i>Scientific Reports</i> , 2017, 7, 10753.	1.6	147
117	Dynamic fluid connectivity during steady-state multiphase flow in a sandstone. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 8187-8192.	3.3	121
118	Generalized network modeling: Network extraction as a coarse-scale discretization of the void space of porous media. <i>Physical Review E</i> , 2017, 96, 013312.	0.8	213
119	Dynamics of snap-off and pore-filling events during two-phase fluid flow in permeable media. <i>Scientific Reports</i> , 2017, 7, 5192.	1.6	135
120	Automatic measurement of contact angle in pore-space images. <i>Advances in Water Resources</i> , 2017, 109, 158-169.	1.7	153
121	Visualization and quantification of capillary drainage in the pore space of laminated sandstone by a porous plate method using differential imaging X-ray microtomography. <i>Water Resources Research</i> , 2017, 53, 7457-7468.	1.7	29
122	X-ray Microtomography of Intermittency in Multiphase Flow at Steady State Using a Differential Imaging Method. <i>Water Resources Research</i> , 2017, 53, 10274-10292.	1.7	83
123	Dynamic Pore-scale Reservoir-condition Imaging of Reaction in Carbonates Using Synchrotron Fast Tomography. <i>Journal of Visualized Experiments</i> , 2017, , .	0.2	3
124	Multi-scale multi-dimensional microstructure imaging of oil shale pyrolysis using X-ray micro-tomography, automated ultra-high resolution SEM, MAPS Mineralogy and FIB-SEM. <i>Applied Energy</i> , 2017, 202, 628-647.	5.1	219
125	The Role of Local Instabilities in Fluid Invasion into Permeable Media. <i>Scientific Reports</i> , 2017, 7, 444.	1.6	65
126	In situ Wettability Measurement in a Carbonate Reservoir Rock at High Temperature and Pressure. , 2017, , .		3

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127	Preface: Special Issue in Honor of Harvey Scher's 80th Birthday. <i>Transport in Porous Media</i> , 2016, 115, 209-214.	1.2	0
128	Multiscale Description of Shale Pore Systems by Scanning SAXS and WAXS Microscopy. <i>Energy & Fuels</i> , 2016, 30, 10282-10297.	2.5	92
129	Imaging of oil layers, curvature and contact angle in a mixed-wet and a water-wet carbonate rock. <i>Water Resources Research</i> , 2016, 52, 1716-1728.	1.7	124
130	Pore-scale simulation of carbonate dissolution in micro-CT images. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 558-576.	1.4	81
131	Pore-space structure and average dissolution rates: A simulation study. <i>Water Resources Research</i> , 2016, 52, 7198-7212.	1.7	28
132	Experimental and Analytical Investigation of Spontaneous Imbibition in Water-Wet Carbonates. <i>Transport in Porous Media</i> , 2016, 115, 189-207.	1.2	36
133	Quantification of sub-resolution porosity in carbonate rocks by applying high-salinity contrast brine using X-ray microtomography differential imaging. <i>Advances in Water Resources</i> , 2016, 96, 306-322.	1.7	92
134	Analytical and numerical investigations of spontaneous imbibition in porous media. <i>Water Resources Research</i> , 2016, 52, 7284-7310.	1.7	33
135	Pore Scale Observations of Trapped CO ₂ in Mixed-Wet Carbonate Rock: Applications to Storage in Oil Fields. <i>Environmental Science & Technology</i> , 2016, 50, 10282-10290.	4.6	57
136	Analytical Solutions for Spontaneous Imbibition: Fractional-Flow Theory and Experimental Analysis. <i>SPE Journal</i> , 2016, 21, 2308-2316.	1.7	59
137	The Impact of Pore Structure Heterogeneity, Transport, and Reaction Conditions on Fluid-Fluid Reaction Rate Studied on Images of Pore Space. <i>Transport in Porous Media</i> , 2016, 115, 215-237.	1.2	33
138	Dynamic imaging of oil shale pyrolysis using synchrotron X-ray microtomography. <i>Geophysical Research Letters</i> , 2016, 43, 6799-6807.	1.5	63
139	Early-Time 1D Analysis of Shale-Oil and -Gas Flow. <i>SPE Journal</i> , 2016, 21, 1254-1262.	1.7	5
140	Low Salinity Waterflooding: From Single Well Chemical Tracer Test Interpretation to Sector Model Forecast Scenarios. , 2016, , .		1
141	The effect of wettability on capillary trapping in carbonates. <i>Advances in Water Resources</i> , 2016, 90, 36-50.	1.7	56
142	The impact of porous media heterogeneity on non-Darcy flow behaviour from pore-scale simulation. <i>Advances in Water Resources</i> , 2016, 95, 329-340.	1.7	137
143	Reservoir condition imaging of reactive transport in heterogeneous carbonates using fast synchrotron tomography - Effect of initial pore structure and flow conditions. <i>Chemical Geology</i> , 2016, 428, 15-26.	1.4	114
144	Imbibition and Trapping. , 2016, , 115-187.		2

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145	Solutions to Equations for Multiphase Flow. , 2016, , 402-436.		3
146	Low-Salinity Waterflood Simulation: Mechanistic and Phenomenological Models. , 2015, , .		12
147	Continuum-scale characterization of solute transport based on pore-scale velocity distributions. Geophysical Research Letters, 2015, 42, 7537-7545.	1.5	33
148	Reservoir Condition Pore-scale Imaging of Multiple Fluid Phases Using X-ray Microtomography. Journal of Visualized Experiments, 2015, , .	0.2	12
149	Towards Predicting Multi-Phase Flow in Porous Media Using Digital Rock Physics: Workflow to Test the Predictive Capability of Pore-Scale Modeling. , 2015, , .		11
150	The Imaging of Dynamic Multiphase Fluid Flow Using Synchrotron-Based X-ray Microtomography at Reservoir Conditions. Transport in Porous Media, 2015, 110, 1-24.	1.2	153
151	Reservoir Modeling for Flow Simulation by Use of Surfaces, Adaptive Unstructured Meshes, and an Overlapping-Control-Volume Finite-Element Method. SPE Reservoir Evaluation and Engineering, 2015, 18, 115-132.	1.1	64
152	Time-of-Flight Distributions and Breakthrough Curves in Heterogeneous Porous Media Using a Pore-Scale Streamline Tracing Algorithm. Transport in Porous Media, 2015, 109, 317-336.	1.2	31
153	A chemical kinetics algorithm for geochemical modelling. Applied Geochemistry, 2015, 55, 46-61.	1.4	26
154	Dynamic Three-Dimensional Pore-Scale Imaging of Reaction in a Carbonate at Reservoir Conditions. Environmental Science & Technology, 2015, 49, 4407-4414.	4.6	153
155	An Efficient Optimisation Technique Using Adaptive Spectral High-Dimensional Model Representation: Application to CO ₂ Sequestration Strategies. , 2015, , .		4
156	Predictions of dynamic changes in reaction rates as a consequence of incomplete mixing using pore scale reactive transport modeling on images of porous media. Journal of Contaminant Hydrology, 2015, 179, 171-181.	1.6	63
157	Design of foam-assisted carbon dioxide storage in a North Sea aquifer using streamline-based simulation. International Journal of Greenhouse Gas Control, 2015, 33, 113-121.	2.3	28
158	Interface control volume finite element method for modelling multi-phase fluid flow in highly heterogeneous and fractured reservoirs. Journal of Computational Physics, 2015, 298, 41-61.	1.9	42
159	Modelling capillary trapping using finite-volume simulation of two-phase flow directly on micro-CT images. Advances in Water Resources, 2015, 83, 102-110.	1.7	97
160	Capillary trapping for geologic carbon dioxide storage – From pore scale physics to field scale implications. International Journal of Greenhouse Gas Control, 2015, 40, 221-237.	2.3	329
161	A Sensitivity Study of the Effect of Image Resolution on Predicted Petrophysical Properties. Transport in Porous Media, 2015, 110, 157-169.	1.2	40
162	Prediction of three-phase oil relative permeability through a sigmoid-based model. Journal of Petroleum Science and Engineering, 2015, 126, 190-200.	2.1	18

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163	Microscale solute transport and precipitation in complex rock during drying. Geophysical Research Letters, 2014, 41, 8369-8376.	1.5	39
164	Pore-scale pore capillary pressure measurements using X-ray microtomography at reservoir conditions: Curvature, snap-off, and remobilization of residual CO_2 . Water Resources Research, 2014, 50, 8760-8774.	1.7	119
165	Reservoir Condition Pore Scale Imaging of the Capillary Trapping of CO_2 . Energy Procedia, 2014, 63, 5427-5434.	1.8	3
166	Dynamic Pore-scale Imaging of Reactive Transport in Heterogeneous Carbonates at Reservoir Conditions. Energy Procedia, 2014, 63, 5503-5511.	1.8	12
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