

David Dewhurst

List of Publications by Year in descending order

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58
papers

3,301
citations

159585

30
h-index

161849

54
g-index

58
all docs

58
docs citations

58
times ranked

2652
citing authors

#	ARTICLE	IF	CITATIONS
1	Carbon dioxide storage potential of shales. <i>International Journal of Greenhouse Gas Control</i> , 2008, 2, 297-308.	4.6	511
2	Impact of fabric, microcracks and stress field on shale anisotropy. <i>Geophysical Journal International</i> , 2006, 165, 135-148.	2.4	235
3	Combined Monte Carlo and molecular dynamics simulation of methane adsorption on dry and moist coal. <i>Fuel</i> , 2014, 122, 186-197.	6.4	195
4	Molecular simulation of CO ₂ vs CH ₄ competitive adsorption and induced coal swelling. <i>Fuel</i> , 2015, 160, 309-317.	6.4	147
5	The development of polygonal fault systems by syneresis of colloidal sediments. <i>Marine and Petroleum Geology</i> , 1999, 16, 793-810.	3.3	126
6	Experimental investigations of the wettability of clays and shales. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	125
7	Stress anisotropy and velocity anisotropy in low porosity shale. <i>Tectonophysics</i> , 2011, 503, 34-44.	2.2	123
8	Prediction of sonic velocities in shale from porosity and clay fraction obtained from logs – A North Sea well case study. <i>Geophysics</i> , 2015, 80, D1-D10.	2.6	106
9	Microstructural and petrophysical characterization of Muderong Shale: application to top seal risking. <i>Petroleum Geoscience</i> , 2002, 8, 371-383.	1.5	99
10	Fault intersections as critical hydrocarbon leakage zones: integrated field study and numerical modelling of an example from the Timor Sea, Australia. <i>Marine and Petroleum Geology</i> , 2004, 21, 1165-1179.	3.3	95
11	Geomechanical analysis of the Naylor Field, Otway Basin, Australia: Implications for CO ₂ injection and storage. <i>International Journal of Greenhouse Gas Control</i> , 2010, 4, 827-839.	4.6	94
12	Adsorption Behavior of Hydrocarbon on Illite. <i>Energy & Fuels</i> , 2016, 30, 9114-9121.	5.1	94
13	Methane and Carbon Dioxide Adsorption on Illite. <i>Energy & Fuels</i> , 2016, 30, 10643-10652.	5.1	79
14	Geomechanical and ultrasonic characterization of a Norwegian Sea shale. <i>Geophysics</i> , 2011, 76, WA101-WA111.	2.6	78
15	Micromechanical characterization of shales through nanoindentation and energy dispersive x-ray spectrometry. <i>Geomechanics for Energy and the Environment</i> , 2017, 9, 21-35.	2.5	74
16	Elastic anisotropy of Opalinus Clay under variable saturation and triaxial stress. <i>Geophysical Journal International</i> , 2014, 198, 1662-1682.	2.4	73
17	Feldspar dissolution-enhanced porosity in Paleoproterozoic shale reservoir facies from the Barney Creek Formation (McArthur Basin, Australia). <i>AAPG Bulletin</i> , 2015, 99, 1745-1770.	1.5	64
18	Effects of physical sorption and chemical reactions of CO ₂ in shaly caprocks. <i>Energy Procedia</i> , 2009, 1, 3229-3235.	1.8	60

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19	Stress-induced anisotropy in brine saturated shale. <i>Geophysical Journal International</i> , 2011, 184, 897-906.	2.4	58
20	Clay-organic association as a control on hydrocarbon generation in shale. <i>Organic Geochemistry</i> , 2017, 105, 42-55.	1.8	55
21	Frequency-dependent seismic attenuation in shales: experimental results and theoretical analysis. <i>Geophysical Journal International</i> , 2014, 198, 504-515.	2.4	53
22	Geomechanical properties related to top seal leakage in the Carnarvon Basin, Northwest Shelf, Australia. <i>Petroleum Geoscience</i> , 2003, 9, 255-263.	1.5	50
23	Empirical strength prediction for preserved shales. <i>Marine and Petroleum Geology</i> , 2015, 67, 512-525.	3.3	45
24	Texture and diagenesis of Ordovician shale from the Canning Basin, Western Australia: Implications for elastic anisotropy and geomechanical properties. <i>Marine and Petroleum Geology</i> , 2015, 59, 56-71.	3.3	44
25	Molecular dynamics study of CO ₂ sorption and transport properties in coal. <i>Fuel</i> , 2016, 177, 53-62.	6.4	41
26	Evaluating hydrocarbon trap integrity during fault reactivation using geomechanical three-dimensional modeling: An example from the Timor Sea, Australia. <i>AAPG Bulletin</i> , 2010, 94, 567-591.	1.5	40
27	Numerical modelling of strain localisation and fluid flow during extensional fault reactivation: Implications for hydrocarbon preservation. <i>Journal of Structural Geology</i> , 2009, 31, 315-327.	2.3	36
28	Modelling the geomechanics of gas storage: A case study from the Iona gas field, Australia. <i>International Journal of Greenhouse Gas Control</i> , 2013, 13, 138-148.	4.6	35
29	A robust experimental determination of Thomsen's $\hat{\nu}$ parameter. <i>Geophysics</i> , 2015, 80, A19-A24.	2.6	35
30	Laboratory micro-seismic signature of shear faulting and fault slip in shale. <i>Physics of the Earth and Planetary Interiors</i> , 2017, 264, 47-62.	1.9	35
31	Estimation of the anisotropy parameters of transversely isotropic shales with a tilted symmetry axis. <i>Geophysical Journal International</i> , 2012, 190, 1197-1203.	2.4	31
32	Stress-dependent elastic properties of shales: Measurement and modeling. <i>The Leading Edge</i> , 2008, 27, 772-779.	0.7	30
33	Deformational behaviour of a clay-rich shale with variable water saturation under true triaxial stress conditions. <i>Geomechanics for Energy and the Environment</i> , 2017, 11, 1-13.	2.5	29
34	Multi-disciplinary approach to fault and top seal appraisal; Pyrenees-Macedon oil and gas fields, Exmouth Sub-basin, Australian Northwest Shelf. <i>Marine and Petroleum Geology</i> , 2006, 23, 241-259.	3.3	28
35	Organic matter network in post-mature Marcellus Shale: Effects on petrophysical properties. <i>AAPG Bulletin</i> , 2018, 102, 2305-2332.	1.5	28
36	Enhanced hydrocarbon leakage at fault intersections: an example from the Timor Sea, Northwest Shelf, Australia. <i>Journal of Geochemical Exploration</i> , 2003, 78-79, 361-365.	3.2	26

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37	Geomechanical stability of CO ₂ containment at the South West Hub Western Australia: A coupled geomechanical–fluid flow modelling approach. <i>International Journal of Greenhouse Gas Control</i> , 2015, 37, 12-23.	4.6	25
38	Molecular simulation studies of hydrocarbon and carbon dioxide adsorption on coal. <i>Petroleum Science</i> , 2015, 12, 692-704.	4.9	25
39	Advanced laboratory techniques characterising solids, fluids and pores in shales. <i>Journal of Petroleum Science and Engineering</i> , 2019, 180, 932-949.	4.2	22
40	Linking preferred orientations to elastic anisotropy in Muderong Shale, Australia. <i>Geophysics</i> , 2015, 80, C9-C19.	2.6	20
41	Experimental and theoretical rock physics research with application to reservoirs, seals and fluid processes. <i>Journal of Petroleum Science and Engineering</i> , 2007, 57, 16-36.	4.2	18
42	An Investigation on Failure Behaviour of a Porous Sandstone Using Single-Stage and Multi-stage True Triaxial Stress Tests. <i>Rock Mechanics and Rock Engineering</i> , 2020, 53, 3543-3562.	5.4	17
43	Experimental chemoporoelastic characterization of shale using millimeter-scale specimens. <i>Journal of Petroleum Science and Engineering</i> , 2014, 118, 40-51.	4.2	16
44	Effects of regional fluid pressure gradients on strain localisation and fluid flow during extensional fault reactivation. <i>Marine and Petroleum Geology</i> , 2011, 28, 1703-1713.	3.3	15
45	An integrated evaluation of hydrocarbon charge and retention at the Griffin, Chinook, and Scindian oil and gas fields, Barrow Subbasin, North West Shelf, Australia. <i>AAPG Bulletin</i> , 2006, 90, 1359-1380.	1.5	13
46	Impact of water saturation on the elastic anisotropy of the Whitby Mudstone, United Kingdom. <i>Geophysics</i> , 2020, 85, MR57-MR72.	2.6	11
47	Interaction of super-critical CO ₂ with mudrocks: Impact on composition and mechanical properties. <i>International Journal of Greenhouse Gas Control</i> , 2020, 102, 103163.	4.6	10
48	Three-dimensional consolidation of fine-grained sediments. <i>Canadian Geotechnical Journal</i> , 1999, 36, 355-362.	2.8	8
49	Microstructural characterisation of organic-rich shale before and after pyrolysis. <i>APPEA Journal</i> , 2014, 54, 249.	0.2	6
50	A laboratory procedure proposed for mechanical testing of shales. <i>APPEA Journal</i> , 2014, 54, 337.	0.2	6
51	Applications of standard and advanced statistical methods to TOC estimation in the McArthur and Georgina basins, Australia. <i>The Leading Edge</i> , 2016, 35, 51-57.	0.7	4
52	Estimation of anisotropy parameters using the P-wave velocities on a cylindrical shale sample. , 2011, , .		3
53	2. Mechanism and Upfault Seepage and Seismic Expression of Hydrocarbon Discharge Sites from the Timor Sea. , 2013, , 11-41.		2
54	Introduction to this special section–Shale geophysics. <i>The Leading Edge</i> , 2008, 27, 736-737.	0.7	1

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55	Ultrasonic Imaging of the Onset and Growth of Fractures Within Partially Saturated Whitby Mudstone Using Coda Wave Decorrelation Inversion. Journal of Geophysical Research: Solid Earth, 2020, 125, e2020JB020042.	3.4	1
56	Evaluation of the Petrel Sub-basin as a northern Australia CO2 store: future decarbonisation hub?. APPEA Journal, 2020, 60, 765.	0.2	1
57	Rock physics and petrophysics testing of shales from the Canning Basin, Western Australia. , 2011, , .		0
58	Multi-physics laboratory characterization of preserved clay- to carbonate-rich shales. , 2013, , .		0