

# Stephen E Laubach

## List of Publications by Year in descending order

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87  
papers

6,892  
citations

81900

39  
h-index

69250

77  
g-index

90  
all docs

90  
docs citations

90  
times ranked

3142  
citing authors

#	ARTICLE	IF	CITATIONS
1	Characteristics and origins of coal cleat: A review. <i>International Journal of Coal Geology</i> , 1998, 35, 175-207.	5.0	649
2	Natural Fractures in shale: A review and new observations. <i>AAPG Bulletin</i> , 2014, 98, 2165-2216.	1.5	645
3	Mechanical and fracture stratigraphy. <i>AAPG Bulletin</i> , 2009, 93, 1413-1426.	1.5	306
4	Microfractures: A review. <i>Journal of Structural Geology</i> , 2014, 69, 377-394.	2.3	301
5	A scale-independent approach to fracture intensity and average spacing measurement. <i>AAPG Bulletin</i> , 2006, 90, 193-208.	1.5	290
6	Natural fracture characterization in tight gas sandstones: Integrating mechanics and diagenesis. <i>AAPG Bulletin</i> , 2009, 93, 1535-1549.	1.5	281
7	Practical approaches to identifying sealed and open fractures. <i>AAPG Bulletin</i> , 2003, 87, 561-579.	1.5	276
8	Are open fractures necessarily aligned with maximum horizontal stress?. <i>Earth and Planetary Science Letters</i> , 2004, 222, 191-195.	4.4	222
9	Coevolution of crack-seal texture and fracture porosity in sedimentary rocks: cathodoluminescence observations of regional fractures. <i>Journal of Structural Geology</i> , 2004, 26, 967-982.	2.3	194
10	The Role of Chemistry in Fracture Pattern Development and Opportunities to Advance Interpretations of Geological Materials. <i>Reviews of Geophysics</i> , 2019, 57, 1065-1111.	23.0	182
11	A 48 m.y. history of fracture opening, temperature, and fluid pressure: Cretaceous Travis Peak Formation, East Texas basin. <i>Bulletin of the Geological Society of America</i> , 2010, 122, 1081-1093.	3.3	174
12	Pure and shear-enhanced compaction bands in Aztec Sandstone. <i>Journal of Structural Geology</i> , 2010, 32, 1873-1886.	2.3	162
13	Insights into rates of fracture growth and sealing from a model for quartz cementation in fractured sandstones. <i>Bulletin of the Geological Society of America</i> , 2015, 127, 516-538.	3.3	162
14	Structural diagenesis. <i>Journal of Structural Geology</i> , 2010, 32, 1866-1872.	2.3	141
15	Fracture-aperture size–frequency, spatial distribution, and growth processes in strata-bounded and non-strata-bounded fractures, Cambrian Mesn Group, NW Argentina. <i>Journal of Structural Geology</i> , 2013, 54, 54-71.	2.3	135
16	Subsurface fractures and their relationship to stress history in East Texas basin sandstone. <i>Tectonophysics</i> , 1988, 156, 37-49.	2.2	121
17	Modeling Coupled Fracture-Matrix Fluid Flow in Geomechanically Simulated Fracture Networks. <i>SPE Reservoir Evaluation and Engineering</i> , 2005, 8, 300-309.	1.8	120
18	Spatial arrangement of faults and opening-mode fractures. <i>Journal of Structural Geology</i> , 2018, 108, 2-15.	2.3	116

#	ARTICLE	IF	CITATIONS
19	Aperture-size scaling variations in a low-strain opening-mode fracture set, Cozzette Sandstone, Colorado. <i>Journal of Structural Geology</i> , 2009, 31, 707-718.	2.3	109
20	A universal power-law scaling exponent for fracture apertures in sandstones. <i>Bulletin of the Geological Society of America</i> , 2014, 126, 1340-1362.	3.3	103
21	Prediction of lithofacies and reservoir quality using well logs, Late Cretaceous Williams Fork Formation, Mamm Creek field, Piceance Basin, Colorado. <i>AAPG Bulletin</i> , 2011, 95, 1699-1723.	1.5	101
22	Testing the basin-centered gas accumulation model using fluid inclusion observations: Southern Piceance Basin, Colorado. <i>AAPG Bulletin</i> , 2012, 96, 2297-2318.	1.5	101
23	Diagenesis in porosity evolution of opening-mode fractures, Middle Triassic to Lower Jurassic La Boca Formation, NE Mexico. <i>Tectonophysics</i> , 2006, 419, 75-97.	2.2	99
24	Modeling fracture porosity evolution in dolostone. <i>Journal of Structural Geology</i> , 2010, 32, 1201-1211.	2.3	92
25	Natural hydraulic fracturing of tight-gas sandstone reservoirs, Piceance Basin, Colorado. <i>Bulletin of the Geological Society of America</i> , 2015, 127, 61-75.	3.3	90
26	Hydraulic Fractures in Core From Stimulated Reservoirs: Core Fracture Description of HFTS Slant Core, Midland Basin, West Texas. , 2018, , .		87
27	Correlation analysis of fracture arrangement in space. <i>Journal of Structural Geology</i> , 2018, 108, 16-33.	2.3	71
28	Paleostress directions from the preferred orientation of closed microfractures (fluid-inclusion) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 382	2.3	69
29	Advances in carbonate exploration and reservoir analysis. <i>Geological Society Special Publication</i> , 2012, 370, 1-15.	1.3	67
30	Fault core and damage zone fracture attributes vary along strike owing to interaction of fracture growth, quartz accumulation, and differing sandstone composition. <i>Journal of Structural Geology</i> , 2014, 68, 207-226.	2.3	66
31	Laurentian palaeostress trajectories and ephemeral fracture permeability, Cambrian Eriboll Formation sandstones west of the Moine Thrust Zone, NW Scotland. <i>Journal of the Geological Society</i> , 2009, 166, 349-362.	2.1	63
32	Fracture porosity creation and persistence in a basement-involved Laramide fold, Upper Cretaceous Frontier Formation, Green River Basin, USA. <i>Geological Magazine</i> , 2016, 153, 887-910.	1.5	58
33	Microfracture spacing distributions and the evolution of fracture patterns in sandstones. <i>Journal of Structural Geology</i> , 2018, 108, 66-79.	2.3	50
34	Origin of arches in the northwestern Gulf of Mexico basin. <i>Geology</i> , 1990, 18, 595.	4.4	49
35	Fracture development and diagenesis of Torridon Group Applecross Formation, near An Teallach, NW Scotland: millennia of brittle deformation resilience?. <i>Journal of the Geological Society</i> , 2012, 169, 297-310.	2.1	48
36	Rapid digital quantification of microfracture populations. <i>Journal of Structural Geology</i> , 2006, 28, 408-420.	2.3	47

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37	Quantifying opening-mode fracture spatial organization in horizontal wellbore image logs, core and outcrop: Application to Upper Cretaceous Frontier Formation tight gas sandstones, USA. <i>Journal of Structural Geology</i> , 2018, 108, 137-156.	2.3	47
38	Outcrops as guides to subsurface natural fractures: Example from the Nikanassin Formation tight-gas sandstone, Grande Cache, Alberta foothills, Canada. <i>Marine and Petroleum Geology</i> , 2019, 103, 255-275.	3.3	43
39	Combining diagenesis and mechanics to quantify fracture aperture distributions and fracture pattern permeability. <i>Geological Society Special Publication</i> , 2007, 270, 101-116.	1.3	42
40	New type of kinematic indicator in bed-parallel veins, Late Jurassic–Early Cretaceous Vaca Muerta Formation, Argentina: E-W shortening during Late Cretaceous vein opening. <i>Journal of Structural Geology</i> , 2017, 104, 31-47.	2.3	40
41	Case study of an extensive silicic lava: the Bracks Rhyolite, Trans-Pecos Texas. <i>Journal of Volcanology and Geothermal Research</i> , 1990, 43, 113-132.	2.1	39
42	Predicting and characterizing fractures in dolostone reservoirs: using the link between diagenesis and fracturing. <i>Geological Society Special Publication</i> , 2004, 235, 177-192.	1.3	39
43	Syn- and postkinematic cement textures in fractured carbonate rocks: Insights from advanced cathodoluminescence imaging. <i>Tectonophysics</i> , 2016, 690, 190-205.	2.2	39
44	Quantified fracture (joint) clustering in Archean basement, Wyoming: application of the normalized correlation count method. <i>Petroleum Geoscience</i> , 2019, 25, 415-428.	1.5	39
45	Brittle Deformation in Sandstone Diagenesis as Revealed by Scanned Cathodoluminescence Imaging with Application to Characterization of Fractured Reservoirs. , 2000, , 225-243.		38
46	OBTAINING FRACTURE INFORMATION FOR LOW-PERMEABILITY (TIGHT) GAS SANDSTONES FROM SIDEWALL CORES. <i>Journal of Petroleum Geology</i> , 2006, 29, 147-158.	1.5	35
47	Fracture abundance and patterns in the Subandean fold and thrust belt, Devonian Huamampampa Formation petroleum reservoirs and outcrops, Argentina and Bolivia. <i>Marine and Petroleum Geology</i> , 2012, 35, 201-218.	3.3	35
48	Fracturing and fluid flow in a sub-décollement sandstone; or, a leak in the basement. <i>Journal of the Geological Society</i> , 2015, 172, 428-442.	2.1	32
49	A Method to Detect Natural Fracture Strike in Sandstones. <i>AAPG Bulletin</i> , 1997, 81 (1997), .	1.5	31
50	Integrating Wellbore Data and Geomechanical Modeling for Effective Characterization of Naturally Fractured Reservoirs. , 1998, , .		29
51	Microfractures in bed-parallel veins (beef) as predictors of vertical macrofractures in shale: Vaca Muerta Formation, Agrio Fold-and-Thrust Belt, Argentina. <i>Journal of South American Earth Sciences</i> , 2017, 79, 152-169.	1.4	28
52	Effects of diagenesis (cement precipitation) during fracture opening on fracture aperture-size scaling in carbonate rocks. <i>Geological Society Special Publication</i> , 2012, 370, 187-206.	1.3	27
53	Fracture Patterns in Low-Permeability-Sandstone Gas Reservoir Rocks in the Rocky Mountain Region. , 1991, , .		26
54	Fracture size, frequency, and strain in the Cambrian Eriboll Formation sandstones, NW Scotland. <i>Scottish Journal of Geology</i> , 2011, 47, 45-56.	0.1	26

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55	The nature and origins of decametre-scale porosity in Ordovician carbonate rocks, Halahatang oilfield, Tarim Basin, China. <i>Journal of the Geological Society</i> , 2020, 177, 1074-1091.	2.1	25
56	Non-linear growth kinematics of opening-mode fractures. <i>Journal of Structural Geology</i> , 2015, 74, 31-44.	2.3	24
57	Fracture, Dissolution, and Cementation Events in Ordovician Carbonate Reservoirs, Tarim Basin, NW China. <i>Geofluids</i> , 2020, 2020, 1-28.	0.7	22
58	Estimating natural fracture producibility in tight gas sandstones: Coupling diagenesis with geomechanical modeling. <i>The Leading Edge</i> , 2010, 29, 1494-1499.	0.7	21
59	Early Mesozoic uplift in west-central Arizona and southeastern California. <i>Geology</i> , 1989, 17, 207.	4.4	20
60	Fractures Generated during Folding of the Palmerton Sandstone, Eastern Pennsylvania. <i>Journal of Geology</i> , 1988, 96, 495-503.	1.4	19
61	Opening histories of fractures in sandstone. <i>Geological Society Special Publication</i> , 2004, 231, 1-9.	1.3	19
62	Progressive deformation and superposed fabrics related to Cretaceous crustal underthrusting in western Arizona, U.S.A.. <i>Journal of Structural Geology</i> , 1989, 11, 735-749.	2.3	16
63	Anisotropy and beyond: Geologic perspectives on geophysical prospecting for natural fractures. <i>The Leading Edge</i> , 2007, 26, 1106-1111.	0.7	16
64	Origin and timing of DauphinÃ© twins in quartz cement in fractured sandstones from diagenetic environments: Insight from fluid inclusions. <i>Tectonophysics</i> , 2016, 687, 195-209.	2.2	16
65	Opening-mode fracture systems: insights from recent fluid inclusion microthermometry studies of crack-seal fracture cements. <i>Geological Society Special Publication</i> , 2017, 458, 257-272.	1.3	16
66	Degradation of fracture porosity in sandstone by carbonate cement, Piceance Basin, Colorado, USA. <i>Petroleum Geoscience</i> , 2019, 25, 354-370.	1.5	16
67	Microstructural controls on elastic anisotropy of finely laminated Mancos Shale. <i>Geophysical Journal International</i> , 2019, 216, 991-1004.	2.4	16
68	Diagenetic controls on fracture permeability and sealing. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 1997, 34, 204.e1-204.e11.	5.8	15
69	Coring-Induced Fractures: Indicators of Hydraulic Fracture Propagation in a Naturally Fractured Reservoir. , 1988, , .		14
70	Oriented Drilled Sidewall Cores for Natural Fracture Evaluation. , 1999, , .		14
71	Using Structural Diagenesis to Infer the Timing of Natural Fractures in the Marcellus Shale. , 2013, , .		14
72	Fracture Detection in Low-Permeability Reservoir Sandstone: A Comparison of BHTV and FMS Logs to Core. , 1988, , .		13

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73	Value-of-Information Analysis of a Fracture Prediction Method. SPE Reservoir Evaluation and Engineering, 2020, 23, 0811-0823.	1.8	10
74	Differential compaction of interbedded sandstone and coal. Geological Society Special Publication, 1999, 169, 51-60.	1.3	9
75	Quantifying static and dynamic stiffness anisotropy and nonlinearity in finely laminated shales: Experimental measurement and modeling. Geophysics, 2019, 84, MR25-MR36.	2.6	9
76	Natural Fractures in Sonora Canyon Sandstones, Sonora and Sawyer Fields, Sutton County, Texas. , 1993, , .		7
77	Using the Link Between Diagenesis and Fracturing to Accurately Predict, Characterize, and Model Fluid-Flow in Fractured Carbonate Rocks. , 2005, , .		7
78	Spatial arrangement and size distribution of normal faults, Buckskin detachment upper plate, Western Arizona. Journal of Structural Geology, 2018, 108, 230-242.	2.3	7
79	Fault patterns generated during extensional deformation of crystalline basement, NW Scotland. Geological Society Special Publication, 1987, 28, 495-499.	1.3	6
80	Mechanisms for the Generation of Complex Fracture Networks: Observations From Slant Core, Analog Models, and Outcrop. Frontiers in Earth Science, 2022, 10, .	1.8	6
81	Quartz c-axis orientation patterns in fracture cement as a measure of fracture opening rate and a validation tool for fracture pattern models. , 2016, 12, 400-438.		5
82	A history of pore water oxygen isotope evolution in the Cretaceous Travis Peak Formation in East Texas. Bulletin of the Geological Society of America, 2020, 132, 1626-1638.	3.3	4
83	Photograph of the month: Fracture with crack-seal texture and porosity, depth 6274m, Wyoming. Journal of Structural Geology, 2010, 32, 1865.	2.3	3
84	Fold-Related Fracture Distribution in Neogene, Triassic, and Jurassic Sandstone Outcrops, Northern Margin of the Tarim Basin, China: Guides to Deformation in Ultradeep Tight Sandstone Reservoirs. Lithosphere, 2021, 2021, .	1.4	3
85	Timing and Processes of Fracture Formation in Tight-Gas Sandstone Reservoirs Using Fluid Inclusions. , 2013, , .		2
86	Editorial: Spatial arrangement of faults and opening-mode fractures. Journal of Structural Geology, 2018, 108, 1.	2.3	1
87	Chemical-Mechanical Feedback and Fracture Size and Spacing Patterns. , 2018, , .		0