Jian Cao

List of Publications by Year
in descending order

117 papers	2,815 citations	201658 27 h-index	233409 45 g-index
119 all docs	119 docs citations	119 times ranked	1239 citing authors

#	ARTICLE	IF	CITATIONS
1	The Permian hybrid petroleum system in the northwest margin of the Junggar Basin, northwest China. Marine and Petroleum Geology, 2005, 22, 331-349.	3.3	173
2	Trace and rare earth element geochemistry of Jurassic mudstones in the northern Qaidam Basin, northwest China. Chemie Der Erde, 2012, 72, 245-252.	2.0	169
3	An alkaline lake in the Late Paleozoic Ice Age (LPIA): A review and new insights into paleoenvironment and petroleum geology. Earth-Science Reviews, 2020, 202, 103091.	9.1	138
4	Petroleum migration and mixing in the northwestern Junggar Basin (NW China): constraints from oil-bearing fluid inclusion analyses. Organic Geochemistry, 2006, 37, 827-846.	1.8	103
5	Diagenetic constraints on the heterogeneity of tight sandstone reservoirs: A case study on the Upper Triassic Xujiahe Formation in the Sichuan Basin, southwest China. Marine and Petroleum Geology, 2018, 92, 650-669.	3.3	75
6	A unique lacustrine mixed dolomitic-clastic sequence for tight oil reservoir within the middle Permian Lucaogou Formation of the Junggar Basin, NW China: Reservoir characteristics and origin. Marine and Petroleum Geology, 2016, 76, 115-132.	3.3	73
7	Episodic petroleum fluid migration in fault zones of the northwestern Junggar Basin (northwest) Tj ETQq1 1 0.784314 rgBT /Overlock	1.5	70
8	Geochemistry and origins of natural gases in the central Junggar Basin, northwest China. Organic Geochemistry, 2012, 53, 166-176.	1.8	68
9	Geochemistry and origin of natural gas in the petroliferous Mahu sag, northwestern Junggar Basin, NW China: Carboniferous marine and Permian lacustrine gas systems. Organic Geochemistry, 2016, 100, 62-79.	1.8	59
10	Improved understanding of petroleum migration history in the Hongche fault zone, northwestern Junggar Basin (northwest China): Constrained by vein-calcite fluid inclusions and trace elements. Marine and Petroleum Geology, 2010, 27, 61-68.	3.3	57
11	Dissolution and its impacts on reservoir formation in moderately to deeply buried strata of mixed siliciclasticâ€"carbonate sediments, northwestern Qaidam Basin, northwest China. Marine and Petroleum Geology, 2013, 39, 124-137.	3.3	57
12	A review of carbonates as hydrocarbon source rocks: basic geochemistry and oilâ€"gas generation. Petroleum Science, 2019, 16, 713-728.	4.9	57
13	Deep hydrocarbons in the northwestern Junggar Basin (NW China): Geochemistry, origin, and implications for the oil vs. gas generation potential of post-mature saline lacustrine source rocks. Marine and Petroleum Geology, 2019, 109, 623-640.	3.3	51
14	Source characterization of highly mature pyrobitumens using trace and rare earth element geochemistry: Sinianâ€"Paleozoic paleo-oil reservoirs in South China. Organic Geochemistry, 2015, 83-84, 77-93.	1.8	50
15	Unsynchronized evolution of salinity and pH of a Permian alkaline lake influenced by hydrothermal fluids: A multi-proxy geochemical study. Chemical Geology, 2020, 541, 119581.	3.3	50
16	Authigenic clay minerals and calcite dissolution influence reservoir quality in tight sandstones: Insights from the central Junggar Basin, NW China. Energy Geoscience, 2020, 1, 8-19.	2.9	50
17	Discovery of oil bitumen co-existing with solid bitumen in the Lower Cambrian Longwangmiao giant gas reservoir, Sichuan Basin, southwestern China: Implications for hydrocarbon accumulation process. Organic Geochemistry, 2017, 108, 61-81.	1.8	44
18	Mechanism of Organic Matter Accumulation in Residual Bay Environments: The Early Cretaceous Qiangtang Basin, Tibet. Energy & Fuels, 2018, 32, 1024-1037.	5.1	44

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19	Origin of early Cambrian black-shale-hosted barite deposits in South China: Mineralogical and geochemical studies. Journal of Asian Earth Sciences, 2015, 106, 79-94.	2.3	42
20	Hydrocarbon generation capability of Sinianâ€"Lower Cambrian shale, mudstone, and carbonate rocks in the Sichuan Basin, southwestern China: Implications for contributions to the giant Sinian Dengying natural gas accumulation. AAPG Bulletin, 2018, 102, 817-853.	1.5	41
21	Multiple-stage migration and accumulation of Permian lacustrine mixed oils in the central Junggar Basin (NW China). Marine and Petroleum Geology, 2015, 59, 187-201.	3.3	40
22	Thermochemical oxidation of methane induced by high-valenceÂmetal oxides in a sedimentary basin. Nature Communications, 2018, 9, 5131.	12.8	37
23	Seawater normalized REE patterns of dolomites in Geshan and Panlongdong sections, China: Implications for tracing dolomitization and diagenetic fluids. Marine and Petroleum Geology, 2014, 56, 63-73.	3.3	36
24	Discovery of syngenetic and eogenetic karsts in the Middle Ordovician gypsum-bearing dolomites of the eastern Ordos Basin (central China) and their heterogeneous impact on reservoir quality. Marine and Petroleum Geology, 2019, 99, 190-207.	3.3	34
25	Discovery of shale oil in alkaline lacustrine basins: The Late Paleozoic Fengcheng Formation, Mahu Sag, Junggar Basin, China. Petroleum Science, 2021, 18, 1281-1293.	4.9	34
26	Organic clots and their differential accumulation of Ni and Mo within early Cambrian black-shale-hosted polymetallic Niâ€"Mo deposits, Zunyi, South China. Journal of Asian Earth Sciences, 2013, 62, 531-536.	2.3	29
27	Analyzing hydrocarbon fractions in crude oils by two-dimensional gas chromatography/time-of-flight mass spectrometry under reversed-phase column system. Fuel, 2015, 158, 191-199.	6.4	29
28	Reevaluating the source and accumulation of tight oil in the middle Permian Lucaogou Formation of the Junggar Basin, China. Marine and Petroleum Geology, 2020, 117, 104384.	3.3	28
29	Neoproterozoic postglacial paleoenvironment and hydrocarbon potential: A review and new insights from the Doushantuo Formation Sichuan Basin, China. Earth-Science Reviews, 2021, 212, 103453.	9.1	27
30	Hydrocarbon generation potential of Triassic mudstones in the Junggar Basin, northwest China. AAPG Bulletin, 2014, 98, 1885-1906.	1.5	26
31	Multi-stage primary and secondary hydrocarbon migration and accumulation in lacustrine Jurassic petroleum systems in the northern Qaidam Basin, NW China. Marine and Petroleum Geology, 2015, 62, 90-101.	3.3	26
32	Coupling of paleoenvironment and biogeochemistry of deep-time alkaline lakes: A lipid biomarker perspective. Earth-Science Reviews, 2021, 213, 103499.	9.1	26
33	Fluctuation of organic carbon isotopes of the Lower Cretaceous in coastal southeastern China: Terrestrial response to the Oceanic Anoxic Events (OAE1b). Palaeogeography, Palaeoclimatology, Palaeoecology, 2014, 399, 352-362.	2.3	25
34	Geochemistry and origin of natural gas in the eastern Junggar Basin, NW China. Marine and Petroleum Geology, 2016, 75, 240-251.	3.3	25
35	Petrologic and geochemical evidence for the formation of organic-rich siliceous rocks of the Late Permian Dalong Formation, Lower Yangtze region, southern China. Marine and Petroleum Geology, 2019, 103, 41-54.	3.3	25
36	Oldest preserved sodium carbonate evaporite: Late Paleozoic Fengcheng Formation, Junggar Basin, NW China. Bulletin of the Geological Society of America, 2021, 133, 1465-1482.	3.3	25

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37	Possible origin of 25-norhopanes in Jurassic organic-poor mudstones from the northern Qaidam Basin (NW China). Organic Geochemistry, 2008, 39, 1058-1065.	1.8	24
38	Controls on shale oil accumulation in alkaline lacustrine settings: Late Paleozoic Fengcheng Formation, northwestern Junggar Basin. Marine and Petroleum Geology, 2021, 129, 105107.	3.3	24
39	A new constraint on the antiquity of ancient haloalkaliphilic green algae that flourished in a ca. 300ÂMa Paleozoic lake. Geobiology, 2021, 19, 147-161.	2.4	23
40	Analysis of terpanes in biodegraded oils from China using comprehensive two-dimensional gas chromatography with time-of-flight mass spectrometry. Fuel, 2014, 133, 153-162.	6.4	22
41	Marine to brackish depositional environments of the Jurassicâ€"Cretaceous Suowa Formation, Qiangtang Basin (Tibet), China. Palaeogeography, Palaeoclimatology, Palaeoecology, 2017, 473, 41-56.	2.3	22
42	A comparative study of experimental maturation of peat, brown coal and subbituminous coal: Implications for coalification. International Journal of Coal Geology, 2006, 66, 108-118.	5.0	21
43	Hydrocarbon potential and depositional environment of the Lower Cretaceous black mudstones and shales in the coastal Guangdong Province, China. Marine and Petroleum Geology, 2019, 99, 92-106.	3.3	21
44	Oceanic anoxia through the late Permian Changhsingian Stage in the Lower Yangtze region, South China: Evidence from sulfur isotopes and trace elements. Chemical Geology, 2020, 532, 119371.	3.3	21
45	Characterization of compounds in unresolved complex mixtures (UCM) of a Mesoproterzoic shale by using GCÃ—GC-TOFMS. Marine and Petroleum Geology, 2015, 66, 791-800.	3.3	20
46	Hydrocarbon evolution of the over-mature Sinian Dengying reservoir of the Neoproterozoic Sichuan Basin, China: Insights from Reâ€"Os geochronology. Marine and Petroleum Geology, 2020, 122, 104726.	3.3	20
47	Deciphering the Early Cretaceous transgression in coastal southeastern China: Constraints based on petrography, paleontology and geochemistry. Palaeogeography, Palaeoclimatology, Palaeoecology, 2012, 317-318, 182-195.	2.3	19
48	New understandings of Niâ€"Mo mineralization in early Cambrian black shales of South China: Constraints from variations in organic matter in metallic and non-metallic intervals. Ore Geology Reviews, 2014, 59, 73-82.	2.7	19
49	Fluidâ€"rock interaction and its effects on the Upper Triassic tight sandstones in the Sichuan Basin, China: Insights from petrographic and geochemical study of carbonate cements. Sedimentary Geology, 2019, 383, 121-135.	2.1	19
50	Mechanism of ultra-deep gas accumulation at thrust fronts in the Longmenshan Mountains, lower Permian Sichuan Basin, China. Journal of Natural Gas Science and Engineering, 2020, 83, 103533.	4.4	19
51	Shale oil in saline lacustrine systems: A perspective of complex lithologies of fine-grained rocks. Marine and Petroleum Geology, 2020, 116, 104351.	3.3	19
52	A review of polymetallic mineralization in lower Cambrian black shales in South China: Combined effects of seawater, hydrothermal fluids, and biological activity. Palaeogeography, Palaeoclimatology, Palaeoecology, 2021, 561, 110073.	2.3	19
53	Diamondoid Characterization in Condensate by Comprehensive Two-Dimensional Gas Chromatography with Time-of-Flight Mass Spectrometry: The Junggar Basin of Northwest China. International Journal of Molecular Sciences, 2012, 13, 11399-11410.	4.1	18
54	Cretaceous source rocks and associated oil and gas resources in the world and China: A review. Petroleum Science, 2014, 11, 331-345.	4.9	18

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55	Organic geochemistry and petrology of Lower Cretaceous black shales in the Qiangtang Basin, Tibet: Implications for hydrocarbon potential. Organic Geochemistry, 2015, 86, 55-70.	1.8	18
56	Reconstructing largeâ€scale karst paleogeomorphology at the top of the Ordovician in the Ordos Basin, China: Control on natural gas accumulation and paleogeographic implications. Energy Science and Engineering, 2019, 7, 3234-3254.	4.0	18
57	Fourier-Transform Infrared Proxies for Oil Source and Maturity: Insights from the Early Permian Alkaline Lacustrine System, Junggar Basin (NW China). Energy & Fuels, 2019, 33, 10704-10717.	5.1	18
58	Co-evolution of paleo-environment and bio-precursors in a Permian alkaline lake, Mahu mega-oil province, Junggar Basin: Implications for oil sources. Science China Earth Sciences, 2022, 65, 462-476.	5.2	18
59	Major elements trace hydrocarbon sources in over-mature petroleum systems: Insights from the Sinian Sichuan Basin, China. Precambrian Research, 2020, 343, 105726.	2.7	17
60	How marine incursion influences the quality of lacustrine source rocks: The Paleogene Nanxiang Basin, eastern China. AAPG Bulletin, 2019, 103, 1071-1096.	1.5	14
61	Origin of giant vein-type bitumen deposits in the northwestern Junggar Basin, NW China: Implications for fault-controlled hydrocarbon accumulation. Journal of Asian Earth Sciences, 2019, 179, 287-299.	2.3	14
62	Organic geochemistry, petrology, and conventional and unconventional hydrocarbon resource potential of Paleogene saline source rocks in eastern China: The Biyang Sag of the Nanxiang Basin. Marine and Petroleum Geology, 2019, 101, 343-354.	3.3	14
63	Marinoan glacial aftermath in South China: Paleo-environmental evolution and organic carbon accumulation in the Doushantuo shales. Chemical Geology, 2020, 555, 119838.	3.3	14
64	Benthic macro red alga: A new possible bio-precursor of Jurassic mudstone source rocks in the northern Qaidam Basin, northwestern China. Science in China Series D: Earth Sciences, 2009, 52, 647-654.	0.9	13
65	Cretaceous and Paleogene saline lacustrine source rocks discovered in the southern Junggar Basin, NW China. Journal of Asian Earth Sciences, 2019, 185, 104019.	2.3	13
66	Stratigraphic correlations and occurrence patterns of two sets of Lower Cretaceous black shales in coastal southeastern China and geological implications: insights from zircon Uâ€“Pb ages. Geological Journal, 2017, 52, 594-608.	1.3	12
67	In situ Raman spectroscopic quantification of CH4â€“CO2 mixture: application to fluid inclusions hosted in quartz veins from the Longmaxi Formation shales in Sichuan Basin, southwestern China. Petroleum Science, 2020, 17, 23-35.	4.9	12
68	Water-level and redox fluctuations in a Sichuan Basin lacustrine system coincident with the Toarcian OAE. Palaeogeography, Palaeoclimatology, Palaeoecology, 2020, 558, 109942.	2.3	12
69	Elemental geochemistry proxies recover original hydrogen index values and total organic carbon contents of over-mature shales: Lower Cambrian South China. Chemical Geology, 2021, 562, 120049.	3.3	12
70	The distribution, hydrocarbon potential, and development of the Lower Cretaceous black shales in coastal southeastern China. Journal of Palaeogeography, 2017, 6, 333-351.	1.9	12
71	Mn content of reservoir calcite cement: A novel inorganic geotracer of secondary petroleum migration in the tectonically complex Junggar Basin (NW China). Science in China Series D: Earth Sciences, 2007, 50, 1796-1809.	0.9	11
72	Zircon Uâ€“Pb dating of the Shipu limestone in Zhejiang Province, coastal southeast China: Implications for the Early Cretaceous environment. Cretaceous Research, 2012, 37, 65-75.	1.4	11

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73	Organic geochemical identification of reservoir oilâ€"gasâ€"water layers in the Junggar Basin, NW China. Marine and Petroleum Geology, 2014, 57, 594-602.	3.3	11
74	On the internal oil migration in shale systems and implications for shale oil accumulation: A combined petrological and geochemical investigation in the Eocene Nanxiang Basin, China. Journal of Petroleum Science and Engineering, 2020, 184, 106493.	4.2	11
75	Artificial bacterial degradation and hydrous pyrolysis of suberin: Implications for hydrocarbon generation of suberinite. Organic Geochemistry, 2012, 47, 22-33.	1.8	10
76	Spatiotemporal evolution of a Late Paleozoic alkaline lake in the Junggar Basin, China. Marine and Petroleum Geology, 2021, 124, 104799.	3.3	10
77	Natural gas accumulation in the basinâ€"mountain transition zone, northwestern Sichuan Basin, China. Marine and Petroleum Geology, 2021, 133, 105305.	3.3	10
78	Marine carbonate reservoirs formed in evaporite sequences in sedimentary basins: A review and new model of epeiric basin-scale moldic reservoirs. Earth-Science Reviews, 2021, 223, 103860.	9.1	10
79	Nuclear magnetic resonance spectroscopy of crude oil as proxies for oil source and thermal maturity based on 1H and 13C spectra. Fuel, 2020, 271, 117622.	6.4	9
80	Revised age of the Fengcheng Formation, Junggar Basin, China: Global implications for the late Paleozoic ice age. Global and Planetary Change, 2022, 208, 103725.	3.5	9
81	Dynamic paleokarst geochemistry within 130 Myr in the Middle Ordovician Shanganning carbonate platform, North China. Palaeogeography, Palaeoclimatology, Palaeoecology, 2022, 591, 110879.	2.3	9
82	Complex petroleum migration and accumulation in central region of southern Junggar basin, Northwest China. Journal of Earth Science (Wuhan, China), 2010, 21, 83-93.	3.2	8
83	Mineralogy of Early <scp>C</scp>ambrian <scp>N</scp>iâ€«<scp>M</scp>o Polymetallic Black Shale at the <scp>S</scp>ancha Deposit, <scp>S</scp>outh <scp>C</scp>hina: Implications for Ore Genesis. Resource Geology, 2015, 65, 1-12.	0.8	8
84	Origin of unresolved complex mixtures (UCMs) in biodegraded oils: Insights from artificial biodegradation experiments. Fuel, 2018, 231, 53-60.	6.4	8
85	Investigating biological nitrogen cycling in lacustrine systems by FT-ICR-MS analysis of nitrogen-containing compounds in petroleum. Palaeogeography, Palaeoclimatology, Palaeoecology, 2020, 556, 109887.	2.3	8
86	Fluid inclusion evidence for extreme overpressure induced by gas generation in sedimentary basins. Geology, 2022, 50, 765-770.	4.4	8
87	Analyzing crude oils from the Junggar BasinÂ(NW China) using comprehensive two-dimensional gas chromatography coupled with time-of-flight mass spectrometry (GCÃ—GC-TOFMS). Acta Geochimica, 2017, 36, 66-73.	1.7	7
88	The forming mechanism of high quality glutenite reservoirs in Baikouquan formation at the Eastern slope of Mahu sag of the Junggar basin, China. Petroleum Science and Technology, 2019, 37, 1665-1674.	1.5	7
89	Chemometric Classification of Crude Oils in Complex Petroleum Systems Using t-Distributed Stochastic Neighbor Embedding Machine Learning Algorithm. Energy & Fuels, 2020, 34, 5884-5899.	5.1	7
90	Dynamic biogeochemical cycling and mineralization of manganese of hydrothermal origin after the Marinoan glaciation. Chemical Geology, 2021, 584, 120502.	3.3	7

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91	Absence of Î²-carotane as proxies of hydrothermal activity in brackish lacustrine sediments. Palaeogeography, Palaeoclimatology, Palaeoecology, 2022, 587, 110801.	2.3	7
92	Fluid-rock interactions and porosity genesis in deep clastic reservoirs: A perspective of differential oil charge intensity. Marine and Petroleum Geology, 2022, 137, 105508.	3.3	7
93	Detection of water in petroleum inclusions and its implications. Science Bulletin, 2006, 51, 1501-1507.	9.0	6
94	Characteristics and formation processes of (Ba, K, NH4)-feldspar and cymrite from a lower Cambrian black shale sequence in Anhui Province, South China. Mineralogical Magazine, 2018, 82, 1-21.	1.4	6
95	Isotopic evidence for the formation of 25-norhopanes via in situ biodegradation in the Permian Lucaogou shales, southern Junggar Basin. Organic Geochemistry, 2022, 163, 104334.	1.8	6
96	Modified LB model for simulation of gas flow in shale pore systems by introducing end effects and local effective mean free path. Journal of Petroleum Science and Engineering, 2022, 212, 110285.	4.2	5
97	Response of nitrogen isotopes to paleo-environment and organic carbon accumulation in a Late Paleozoic alkaline lake, Junggar Basin. Chemical Geology, 2022, 602, 120884.	3.3	5
98	Lacustrine redox variations in the Toarcian Sichuan Basin across the Jenkyns Event. Global and Planetary Change, 2022, 215, 103860.	3.5	5
99	Identification of NW-Trending Faults in the Northwestern Junggar Basin (NW China) and its Significance of Hydrocarbon Migration. Energy Exploration and Exploitation, 2011, 29, 251-265.	2.3	4
100	Geochemistry and Origins of Natural Gases in the Southwestern Junggar Basin, Northwest China. Energy Exploration and Exploitation, 2012, 30, 707-725.	2.3	4
101	Tightness and sweet spot formation in moldic-pore-type dolomite reservoirs: The middle Ordovician Majiagou Formation in the eastern Ordos Basin, central China. Petroleum, 2019, 5, 341-351.	2.8	4
102	Insights into Carboniferous subduction-related petroleum systems in the Central Asian Orogenic Belt (CAOB) from hydrocarbons in vein calcite cements, West Junggar, northwest China. Marine and Petroleum Geology, 2021, 124, 104796.	3.3	4
103	Diagenetic fluid controls chemical compositions of authigenic chlorite in clastic reservoirs. Marine and Petroleum Geology, 2022, 137, 105520.	3.3	4
104	The Au-Hosting Minerals and Process of Formation of the Carlin-Type Bojitian Deposit, Southwestern China. Geofluids, 2017, 2017, 1-22.	0.7	3
105	Multivariate Statistical Analysis Reveals the Heterogeneity of Lacustrine Tight Oil Accumulation in the Middle Permian Jimusar Sag, Junggar Basin, NW China. Geofluids, 2020, 2020, 1-14.	0.7	3
106	Revisiting Controls on Shale Oil Accumulation in Saline Lacustrine Basins: The Permian Lucaogou Formation Mixed Rocks, Junggar Basin. Geofluids, 2021, 2021, 1-25.	0.7	3
107	Linkages between nitrogen cycling, nitrogen isotopes, and environmental properties in paleo-lake basins. Bulletin of the Geological Society of America, 2022, 134, 2359-2372.	3.3	3
108	Deep-Buried Triassic Oil-Source Correlation in the Central Junggar Basin, NW China. Geofluids, 2017, 2017, 1-17.	0.7	2

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109	Probing Dynamics and Wettability of Water and Oil in Conventional and Unconventional Sandstone Rock Cores by Field-Cycling NMR Relaxometry. Energy & Fuels, 2019, 33, 10583-10592.	5.1	2
110	Geochemistry and Genesis of Oil and Gas Seeps in the Junggar Basin, NW China: Implications for Hybrid Petroleum Systems. Geofluids, 2019, 2019, 1-26.	0.7	2
111	Application of Nuclear Magnetic Resonance (NMR) Spectroscopy to Lacustrine Kerogen Geochemistry: Paleogene Dongpu Sag, China. Energy & Fuels, 2021, 35, 1234-1247.	5.1	2
112	Lattice Boltzmann Simulations on Shale Gas Flow in Slit Micro/Nanopores in Kerogen and Prediction of Cut Off Pore Throat. Energy & Fuels, 2020, 34, 15995-16005.	5.1	2
113	Diverse oil and gas seeps in the southern Junggar Basin, NW China (piedmont Northern Tian Shan): Origins and links to tectonoâ€sedimentary evolution. Geological Journal, 2020, 55, 3497-3521.	1.3	1
114	Deformation of the Northwestern Junggar Basin (Che-Guai Region, Northwest China) and Implications for Hydrocarbon Accumulation. Journal of Geology, 2020, 128, 45-68.	1.4	1
115	Chemically Active Elements of Reservoir Quartz Cement Trace Hydrocarbon Migration in the Mahu Sag, Junggar Basin, NW China. Geofluids, 2021, 2021, 1-19.	0.7	1
116	Biomarker geochemistry of marine organic matter in the Hushan and Chaohu areas, Lower Yangtze region. Diqiu Huaxue, 2011, 30, 145-152.	0.5	0
117	Controls of Deep-Seated Faults and Folds on Hydrocarbon Fluid Migration and Accumulation in Sedimentary Basins: A Case Study from the Northwestern Sichuan Basin, China. Geofluids, 2021, 2021, 1-15.	0.7	0