Hao Xu

List of Publications by Year
in descending order

129	4,884	101384	106150
papers	citations	36 h-index	65 g-index

129	129	129	2186
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Characteristics of pore structure and fractal dimension of low-rank coal: A case study of Lower Jurassic Xishanyao coal in the southern Junggar Basin, NW China. Fuel, 2017, 193, 254-264.	3.4	230
2	A comparative evaluation of coal specific surface area by CO2 and N2 adsorption and its influence on CH4 adsorption capacity at different pore sizes. Fuel, 2016, 183, 420-431.	3.4	202
3	Height of the mining-induced fractured zone above a coal face. Engineering Geology, 2017, 216, 140-152.	2.9	202
4	Material composition, pore structure and adsorption capacity of low-rank coals around the first coalification jump: A case of eastern Junggar Basin, China. Fuel, 2018, 211, 804-815.	3.4	183
5	A review of the application of X-ray computed tomography to the study of coal. Fuel, 2017, 209, 10-24.	3.4	157
6	Characterization of the stress sensitivity of pores for different rank coals by nuclear magnetic resonance. Fuel, 2013, 111, 746-754.	3.4	156
7	Production characteristics and the key factors in high-rank coalbed methane fields: A case study on the Fanzhuang Block, Southern Qinshui Basin, China. International Journal of Coal Geology, 2012, 96-97, 93-108.	1.9	154
8	Dynamic variation effects of coal permeability during the coalbed methane development process in the Qinshui Basin, China. International Journal of Coal Geology, 2012, 93, 16-22.	1.9	129
9	Experimental research on coal permeability: The roles of effective stress and gas slippage. Journal of Natural Gas Science and Engineering, 2014, 21, 481-488.	2.1	124
10	Factors controlling high-yield coalbed methane vertical wells in the Fanzhuang Block, Southern Qinshui Basin. International Journal of Coal Geology, 2014, 134-135, 38-45.	1.9	118
11	Advanced characterization of physical properties of coals with different coal structures by nuclear magnetic resonance and X-ray computed tomography. Computers and Geosciences, 2012, 48, 220-227.	2.0	116
12	A new laboratory method for accurate measurement of the methane diffusion coefficient and its influencing factors in the coal matrix. Fuel, 2015, 158, 239-247.	3.4	111
13	A precise measurement method for shale porosity with low-field nuclear magnetic resonance: A case study of the Carboniferousâ€“Permian strata in the Linxing area, eastern Ordos Basin, China. Fuel, 2015, 143, 47-54.	3.4	110
14	Coal seam porosity and fracture heterogeneity of macrolithotypes in the Hancheng Block, eastern margin, Ordos Basin, China. International Journal of Coal Geology, 2016, 159, 18-29.	1.9	108
15	Geological controls and coalbed methane production potential evaluation: A case study in Liulin area, eastern Ordos Basin, China. Journal of Natural Gas Science and Engineering, 2014, 21, 95-111.	2.1	89
16	In-situ stress measurements and stress distribution characteristics of coal reservoirs in major coalfields in China: Implication for coalbed methane (CBM) development. International Journal of Coal Geology, 2017, 182, 66-84.	1.9	88
17	Characterization of Coalbed Methane Reservoirs at Multiple Length Scales: A Cross-Section from Southeastern Ordos Basin, China. Energy & Fuels, 2014, 28, 5587-5595.	2.5	87
18	Pore Structure Characterization of Different Rank Coals Using N₂ and CO₂ Adsorption and Its Effect on CH₄ Adsorption Capacity: A Case in Panguan Syncline, Western Guizhou, China. Energy & Fuels, 2017, 31, 6034-6044.	2.5	87

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19	Evaluation of coalbed methane potential of different reservoirs in western Guizhou and eastern Yunnan, China. Fuel, 2015, 139, 257-267.	3.4	86
20	Pore structure evolution of low-rank coal in China. International Journal of Coal Geology, 2019, 205, 126-139.	1.9	82
21	Pore and fracture characteristics of different rank coals in the eastern margin of the Ordos Basin, China. Journal of Natural Gas Science and Engineering, 2015, 26, 1264-1277.	2.1	80
22	Experimental study on permeability stress sensitivity of reconstituted granular coal with different lithotypes. Fuel, 2017, 202, 12-22.	3.4	78
23	High production indexes and the key factors in coalbed methane production: A case in the Hancheng block, southeastern Ordos Basin, China. Journal of Petroleum Science and Engineering, 2015, 130, 55-67.	2.1	77
24	Geological conditions of deep coalbed methane in the eastern margin of the Ordos Basin, China: Implications for coalbed methane development. Journal of Natural Gas Science and Engineering, 2018, 53, 394-402.	2.1	69
25	In-situ stress distribution and its implication on coalbed methane development in Liulin area, eastern Ordos basin, China. Journal of Petroleum Science and Engineering, 2014, 122, 488-496.	2.1	68
26	Fluid velocity sensitivity of coal reservoir and its effect on coalbed methane well productivity: A case of Baode Block, northeastern Ordos Basin, China. Journal of Petroleum Science and Engineering, 2017, 152, 229-237.	2.1	63
27	A dynamic prediction model for gas-water effective permeability in unsaturated coalbed methane reservoirs based on production data. Journal of Natural Gas Science and Engineering, 2014, 21, 496-506.	2.1	61
28	Permeability dynamic variation under the action of stress in the medium and high rank coal reservoir. Journal of Natural Gas Science and Engineering, 2015, 26, 1030-1041.	2.1	53
29	Coupled THMC models for bentonite in an argillite repository for nuclear waste: Illitization and its effect on swelling stress under high temperature. Engineering Geology, 2017, 230, 118-129.	2.9	53
30	In-situ stress, stress-dependent permeability, pore pressure and gas-bearing system in multiple coal seams in the Panguan area, western Guizhou, China. Journal of Natural Gas Science and Engineering, 2018, 49, 110-122.	2.1	52
31	Structural controls on coalbed methane accumulation and high production models in the eastern margin of Ordos Basin, China. Journal of Natural Gas Science and Engineering, 2015, 23, 524-537.	2.1	47
32	Characteristic of In Situ Stress and Its Control on the Coalbed Methane Reservoir Permeability in the Eastern Margin of the Ordos Basin, China. Rock Mechanics and Rock Engineering, 2016, 49, 3307-3322.	2.6	47
33	Accurate characterization of coal pore and fissure structure based on CT 3D reconstruction and NMR. Journal of Natural Gas Science and Engineering, 2021, 96, 104242.	2.1	45
34	Grain-scale reconstruction and simulation of coal mechanical deformation and failure behaviors using combined SEM Digital Rock data and DEM simulator. Powder Technology, 2020, 360, 1305-1320.	2.1	42
35	The impact of the coal macrolithotype on reservoir productivity, hydraulic fracture initiation and propagation. Fuel, 2019, 239, 471-483.	3.4	41
36	The pore-fracture system properties of coalbed methane reservoirs in the Panguan Syncline, Guizhou, China. Geoscience Frontiers, 2012, 3, 853-862.	4.3	39

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37	The identification of coal texture in different rank coal reservoirs by using geophysical logging data in northwest Guizhou, China: Investigation by principal component analysis. Fuel, 2018, 230, 258-265.	3.4	39
38	A model of fully coupled two-phase flow and coal deformation under dynamic diffusion for coalbed methane extraction. Journal of Natural Gas Science and Engineering, 2019, 72, 103010.	2.1	38
39	Division of coalbed methane desorption stages and its significance. Petroleum Exploration and Development, 2014, 41, 671-677.	3.0	37
40	Evaluation of coal macrolithotypes distribution by geophysical logging data in the Hancheng Block, Eastern Margin, Ordos Basin, China. International Journal of Coal Geology, 2016, 165, 265-277.	1.9	37
41	Characteristics of in-situ stress distribution and its significance on the coalbed methane (CBM) development in Fanzhuang-Zhengzhuang Block, Southern Qinshui Basin, China. Journal of Petroleum Science and Engineering, 2018, 161, 108-120.	2.1	36
42	Distribution of stable carbon isotope in coalbed methane from the east margin of Ordos Basin. Science China Earth Sciences, 2014, 57, 1741-1748.	2.3	34
43	Characterization of mineral composition and its influence on microstructure and sorption capacity of coal. Journal of Natural Gas Science and Engineering, 2015, 25, 46-57.	2.1	34
44	Geologic controls of the production of coalbed methane in the Hancheng area, southeastern Ordos Basin. Journal of Natural Gas Science and Engineering, 2015, 26, 156-162.	2.1	34
45	Geologic and hydrological controls on coal reservoir water production in marine coal-bearing strata: A case study of the Carboniferous Taiyuan Formation in the Liulin area, eastern Ordos Basin, China. Marine and Petroleum Geology, 2015, 59, 517-526.	1.5	34
46	Porosity model and air leakage flow field simulation of goaf based on DEM-CFD. Arabian Journal of Geosciences, 2018, 11, 1.	0.6	33
47	Fractal characterization of pore structure for coal macrolithotypes in the Hancheng area, southeastern Ordos Basin, China. Journal of Petroleum Science and Engineering, 2019, 178, 666-677.	2.1	32
48	Discrete element study on mesomechanical behavior of crack propagation in coal samples with two prefabricated fissures under biaxial compression. Powder Technology, 2020, 375, 42-59.	2.1	31
49	Productivity matching and quantitative prediction of coalbed methane wells based on BP neural network. Science China Technological Sciences, 2011, 54, 1281-1286.	2.0	30
50	The impact of coal macrolithotype on hydraulic fracture initiation and propagation in coal seams. Journal of Natural Gas Science and Engineering, 2018, 56, 299-314.	2.1	30
51	Controlling factors of underpressure reservoirs in the Sulige gas field, Ordos Basin. Petroleum Exploration and Development, 2012, 39, 70-74.	3.0	29
52	Effective porosity in lignite using kerosene with low-field nuclear magnetic resonance. Fuel, 2018, 213, 158-163.	3.4	29
53	Pore structure and fractal characterization of main coal-bearing synclines in western Guizhou, China. Journal of Natural Gas Science and Engineering, 2019, 63, 58-69.	2.1	28
54	Time- and Pressure-Independent Gas Transport Behavior in a Coal Matrix: Model Development and Improvement. Energy & Fuels, 2020, 34, 9355-9370.	2.5	27

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55	ANISOTROPIC DAMAGE MODELS FOR GEOMATERIALS: THEORETICAL AND NUMERICAL CHALLENGES. International Journal of Computational Methods, 2014, 11, 1342007.	0.8	26
56	Geological mechanisms of the accumulation of coalbed methane induced by hydrothermal fluids in the western Guizhou and eastern Yunnan regions. Journal of Natural Gas Science and Engineering, 2016, 33, 644-656.	2.1	26
57	Evaluation of fracture system for coal marcolithotypes in the Hancheng Block, eastern margin of the Ordos Basin, China. Journal of Petroleum Science and Engineering, 2017, 159, 799-809.	2.1	26
58	In-situ stress distribution and its influence on the coal reservoir permeability in the Hancheng area, eastern margin of the Ordos Basin, China. Journal of Natural Gas Science and Engineering, 2019, 61, 119-132.	2.1	26
59	Chemicalâ€Mechanical Impacts of CO₂ Intrusion Into Heterogeneous Caprock. Water Resources Research, 2020, 56, e2020WR027193.	1.7	26
60	Factors affecting the development of the pressure differential in Upper Paleozoic gas reservoirs in the Sulige and Yulin areas of the Ordos Basin, China. International Journal of Coal Geology, 2011, 85, 103-111.	1.9	24
61	Theoretical, numerical, and experimental analysis of effective extraction radius of coalbed methane boreholes by a gas seepage model based on defined criteria. Energy Science and Engineering, 2020, 8, 880-897.	1.9	24
62	Controlling factors of coalbed methane well productivity of multiple superposed coalbed methane systems: A case study on the Songhe mine field, Guizhou, China. Energy Exploration and Exploitation, 2017, 35, 665-684.	1.1	22
63	Computational model coupling mode II discrete fracture propagation with continuum damage zone evolution. International Journal for Numerical and Analytical Methods in Geomechanics, 2017, 41, 223-250.	1.7	21
64	Experimental simulate on hydrogen production of different coals in underground coal gasification. International Journal of Hydrogen Energy, 2023, 48, 6975-6985.	3.8	21
65	Analysis of pore system model and physical property of coal reservoir in the Qinshui Basin. Science Bulletin, 2005, 50, 52-58.	1.7	20
66	Abrupt Changes in Reservoir Properties of Low-Rank Coal and Its Control Factors for Methane Adsorbability. Energy & Fuels, 2016, 30, 2084-2094.	2.5	20
67	Characteristics of Methane (CH₄) Diffusion in Coal and Its Influencing Factors in the Qinshui and Ordos Basins. Energy & Fuels, 2018, 32, 1196-1205.	2.5	20
68	An improved method to determine accurate porosity of low-rank coals by nuclear magnetic resonance. Fuel Processing Technology, 2020, 205, 106435.	3.7	19
69	The hydration of bentonite buffer material revealed by modeling analysis of a long-term in situ test. Applied Clay Science, 2020, 185, 105360.	2.6	18
70	Experimental study on the change of reservoir characteristics of different lithotypes of lignite after dehydration and improvement of seepage capacity. Fuel, 2020, 277, 118196.	3.4	18
71	Theoretical model and numerical solution of gas desorption and flow mechanism in coal matrix based on free gas density gradient. Journal of Natural Gas Science and Engineering, 2021, 90, 103932.	2.1	17
72	Coexistence mechanism of multi-types of reservoir pressure in the Malang depression of the Santanghu basin, China. Journal of Petroleum Science and Engineering, 2013, 108, 279-287.	2.1	16

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73	Characteristics and control mechanisms of coalbed permeability change in various gas production stages. Petroleum Science, 2015, 12, 684-691.	2.4	16
74	The influence of flow velocity on coal fines output and coal permeability in the Fukang Block, southern Junggar Basin, China. Scientific Reports, 2017, 7, 14124.	1.6	16
75	Study on the Low-Temperature Oxidation Law in the Co-Mining Face of Coal and Oil Shale in a Goafâ€”A Case Study in the Liangjia Coal Mine, China. Energies, 2018, 11, 174.	1.6	16
76	A study of thermal pressurization and potential for hydro-fracturing associated with nuclear waste disposal in argillaceous claystone. International Journal of Rock Mechanics and Minings Sciences, 2020, 136, 104536.	2.6	14
77	Modeling of thermal pressurization in tight claystone using sequential THM coupling: Benchmarking and validation against in-situ heating experiments in COx claystone. Tunnelling and Underground Space Technology, 2020, 103, 103428.	3.0	14
78	Effect of interlayer mechanical properties on initiation and propagation of hydraulic fracturing in laminated coal reservoirs. Journal of Petroleum Science and Engineering, 2022, 208, 109381.	2.1	14
79	Experimental study on structural models of coal macrolithotypes and its well logging responses in the Hancheng area, Ordos Basin, China. Journal of Petroleum Science and Engineering, 2018, 166, 658-672.	2.1	13
80	Properties of lignite and key factors determining the methane adsorption capacity of lignite: New insights into the effects of interlayer spacing on adsorption capacity. Fuel Processing Technology, 2019, 196, 106181.	3.7	13
81	Influence of tectonic uplift-erosion on formation pressure. Petroleum Science, 2010, 7, 477-484.	2.4	11
82	Mechanistic Analysis of Rock Damage Anisotropy and Rotation Around Circular Cavities. Rock Mechanics and Rock Engineering, 2015, 48, 2283-2299.	2.6	11
83	Permeability Anisotropy in High Dip Angle Coal Seam: A Case Study of Southern Junggar Basin. Natural Resources Research, 2021, 30, 2273-2286.	2.2	11
84	Determination of Long Horizontal Borehole Height in Roofs and its Application to Gas Drainage. Energies, 2018, 11, 2647.	1.6	10
85	Prediction of the thermal-hydraulic-mechanical response of a geological repository at large scale and sensitivity analyses. International Journal of Rock Mechanics and Minings Sciences, 2020, 136, 104484.	2.6	10
86	The Differences of Physical Properties of Coal Reservoirs and Their Origin Mechanism between Zhijin and Panxian Areas, Western Guizhou, China. Energy Exploration and Exploitation, 2012, 30, 661-676.	1.1	9
87	Mechanical behavior of low-rank bituminous coal under compression: An experimental and numerical study. Journal of Natural Gas Science and Engineering, 2019, 66, 77-85.	2.1	9
88	Problems in pore property testing of lignite: Analysis and correction. International Journal of Coal Geology, 2021, 245, 103829.	1.9	9
89	Migration behavior of two-component gases among CO2, N2 and O2 in coal particles during adsorption. Fuel, 2022, 313, 123003.	3.4	9
90	Differences in accumulation patterns of low-rank coalbed methane in China under the control of the first coalification jump. Fuel, 2022, 324, 124657.	3.4	9

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91	Stress sensitivity of coal samples in terms of anisotropy. Science in China Series A: Mathematics, 2013, 19, 203-209.	0.2	8
92	Fracture-Induced Anisotropy of the Stressâ€“Strain Response of Shale at Multiple Scales. International Journal of Geomechanics, 2017, 17, .	1.3	8
93	Quantitative characterization of middle-high ranked coal reservoirs in the Hancheng Block, eastern margin, Ordos Basin, China: implications for permeability evolution with the coal macrolithotypes. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2019, 41, 201-215.	1.2	8
94	Coalbed methane production of a heterogeneous reservoir in the Ordos Basin, China. Journal of Natural Gas Science and Engineering, 2020, 82, 103502.	2.1	8
95	Coal char characteristics variation in the gasification process and its influencing factors. Energy Exploration and Exploitation, 2020, 38, 1559-1573.	1.1	8
96	Coupled modeling of multiphase flow and poro-mechanics for well operations on fault slip and methane production. Acta Mechanica, 2020, 231, 3277-3288.	1.1	8
97	A Discrete Fracture Modeling Approach for Analysis of Coalbed Methane and Water Flow in a Fractured Coal Reservoir. Geofluids, 2020, 2020, 1-15.	0.3	7
98	A comprehensive method to prevent top-coal spontaneous combustion utilizing dry ice as a fire extinguishing medium: test apparatus development and field application. Environmental Science and Pollution Research, 2022, 29, 19741-19751.	2.7	7
99	In situ Stressâ€“Coal Structure Relationship and Its Influence on Hydraulic Fracturing: A Case Study in Zhengzhuang Area in Qinshui Basin, China. Natural Resources Research, 2022, 31, 1621-1646.	2.2	7
100	Probabilistic optimization of a continuum mechanics model to predict differential stress-induced damage in claystone. International Journal of Rock Mechanics and Minings Sciences, 2014, 68, 136-149.	2.6	6
101	Exploration of Detection Technology about Arsenic Content in Natural Gas and Application. Energy & Fuels, 2015, 29, 3863-3869.	2.5	6
102	Integration of a continuum damage model for shale with the cutting plane algorithm. International Journal for Numerical and Analytical Methods in Geomechanics, 2017, 41, 471-487.	1.7	6
103	Insights into coupling between in-situ coalbed water geochemical signatures and microbial communities. International Journal of Coal Geology, 2022, 258, 104026.	1.9	6
104	Geologically controlling factors on coal bed methane (CBM) productivity in Liulin. Science in China Series A: Mathematics, 2012, 18, 362-367.	0.2	5
105	A Permeability Model for Undersaturated Coalbed Methane Reservoirs Considering the Coal Matrix Shrinkage Effect. Advanced Materials Research, 2013, 807-809, 2413-2420.	0.3	5
106	Study on gas-bearing coal seam destabilization based on the improved Lippmann model and stress wave theory. Journal of Loss Prevention in the Process Industries, 2018, 56, 334-341.	1.7	5
107	Dynamic evaluation of heterogeneity in pore-fracture system of different rank coals under different confining pressure based on low-field NMR. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2021, 43, 1620-1634.	1.2	5
108	Continuous monitoring system of gob temperature and its application. Environmental Science and Pollution Research, 2022, 29, 53063-53075.	2.7	4

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109	Coalbed methane geology and exploration potential in large, thick, low-rank seams in the Bayanhua Sag of the Erlian Basin, northern China. Energy Exploration and Exploitation, 2022, 40, 995-1022.	1.1	4
110	Comparative Analysis on Water Movability in Pores of Different Reservoir Rocks by Nuclear Magnetic Resonance. Energy Exploration and Exploitation, 2015, 33, 689-705.	1.1	3
111	Preparation of a New Borehole Sealing Material of Coal Seam Water Infusion. Advances in Materials Science and Engineering, 2018, 2018, 1-7.	1.0	3
112	Analysis of hydraulic fracture behavior and well pattern optimization in anisotropic coal reservoirs. Energy Exploration and Exploitation, 2021, 39, 299-317.	1.1	3
113	A permeability evolution model of coal particle from the perspective of adsorption deformation. Energy Science and Engineering, 2021, 9, 577-587.	1.9	3
114	A new relative permeability model of coal reservoir considering interface effect. Journal of Petroleum Science and Engineering, 2021, 207, 109082.	2.1	3
115	Precise positioning and inert processing of the high-temperature zone in a longwall gob during a mining-stopped period: an application case. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 0, , 1-16.	1.2	3
116	Numerical Solution of the Mathematical Model for Constant Pressure Gas Desorption in a Coal Matrix. Energy & Fuels, 2022, 36, 415-424.	2.5	3
117	Characteristics of Abnormal Pressure Systems and Their Responses of Fluid in Huatugou Oil Field, Qaidam Basin. Acta Geologica Sinica, 2009, 83, 939-950.	0.8	2
118	Radioactive elements in natural gas: a case study on distribution of gaseous 222radon and its origin mechanism. Natural Hazards, 2012, 63, 647-657.	1.6	2
119	Identifying the key factor of medium-rank coalbed methane productivity with gray relational analysis: a case study in Liulin area, Ordos basin, China. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 0, , 1-14.	1.2	2
120	Multi-angle analysis of the mechanism of polymer materials to improve the sealing quality of boreholes. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2022, 44, 3205-3222.	1.2	2
121	Pore characteristics and its heterogeneity of lignite reservoir in the Erlian Basin of Inner Mongolia, China. Energy Exploration and Exploitation, 2022, 40, 1555-1572.	1.1	2
122	Numerical Simulation of Deformation and Failure Mechanism of Main Inclined Shaft in Yuxi Coal Mine, China. Applied Sciences (Switzerland), 2022, 12, 5531.	1.3	2
123	Application of Fluid Inclusion Technology to the Study of Hydrocarbon Charge History in Upper Triassic Reservoir of Chuanxi Foreland Basin, China. Advanced Materials Research, 2011, 339, 517-520.	0.3	0
124	Thermo-Mechanical Damage in Porous Rocks: Theoretical Framework and Modeling Considerations. , 2012, , .		0
125	Modeling Damage Induced by Deviatoric Stress in Rock: Theoretical Framework. , 2013, , .		0
126	The influence of high-yield-water characteristics on productivity of CBM wells and expulsion and production method carried out in Yanchuannan block of the Ordos basin, China. Science in China Series A: Mathematics, 2013, 19, 514-521.	0.2	0

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127	Multiscale Discontinuities Due to Differential Stress around a Pressurized Borehole. , 2014, , .		0
128	Macrolithotype characteristics of coal seam and their controls on coalbed methane well productivity in the Hancheng block of the southeastern margin of Ordos Basin. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 0, , 1-14.	1.2	0
129	The geologic origin of physical property difference in middle-shallow reservoir, north-western Qaidam Basin. WIT Transactions on the Built Environment, 2014, , .	0.0	0