

Influence of maceral composition on the structure, properties and reactivity of porous carbons derived from South African coals

Fuel

142, 9-20

DOI: [10.1016/j.fuel.2014.10.033](https://doi.org/10.1016/j.fuel.2014.10.033)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Quantitative study of the macromolecular structures of tectonically deformed coal using high-resolution transmission electron microscopy. <i>Journal of Natural Gas Science and Engineering</i> , 2015, 27, 1852-1862.	4.4	65
2	Chemical structural properties of South African bituminous coals: Insights from wide angle XRD carbon fraction analysis, ATR-FTIR, solid state ¹³ C NMR, and HRTEM techniques. <i>Fuel</i> , 2015, 158, 779-792.	6.4	262
3	Density functional theory molecular modelling and experimental particle kinetics for CO ₂ char gasification. <i>Carbon</i> , 2015, 93, 295-314.	10.3	58
4	The characterisation of slow-heated inertinite- and vitrinite-rich coals from the South African coalfields. <i>Fuel</i> , 2015, 158, 591-601.	6.4	36
5	Char particle emissivity of two coal chars in oxy-fuel atmospheres. <i>Fuel</i> , 2016, 183, 405-413.	6.4	29
6	Following the structure and reactivity of Tuncbilek lignite during pyrolysis and hydrogenation. <i>Fuel Processing Technology</i> , 2016, 152, 266-273.	7.2	17
7	Investigate the Adsorption Behavior of CO ₂ on Char Inorganic Compound Model for Coal Gasification. <i>Energy & Fuels</i> , 2016, , .	5.1	1
8	Effects of several types of biomass fuels on the yield, nanostructure and reactivity of soot from fast pyrolysis at high temperatures. <i>Applied Energy</i> , 2016, 171, 468-482.	10.1	82
9	Quantifying Curvature in High-Resolution Transmission Electron Microscopy Lattice Fringe Micrographs of Coals. <i>Energy & Fuels</i> , 2016, 30, 2694-2704.	5.1	46
10	Examination of structural models and bonding characteristics of coals. <i>Fuel</i> , 2016, 184, 799-807.	6.4	48
11	Atomistic simulation of coal char isothermal oxy-fuel combustion: Char reactivity and behavior. <i>Fuel</i> , 2016, 182, 935-943.	6.4	27
12	Petrographic characteristics of lignite gasification chars. <i>International Journal of Coal Geology</i> , 2016, 168, 146-161.	5.0	10
13	Structural and chemical modifications of typical South African biomasses during torrefaction. <i>Bioresource Technology</i> , 2016, 202, 192-197.	9.6	59
14	Emissivity of burning bituminous coal char particles – Burnout effects. <i>Fuel</i> , 2017, 196, 336-343.	6.4	24
15	The effect of acid demineralising bituminous coals and de-ashing the respective chars on nitrogen functional forms. <i>Journal of Analytical and Applied Pyrolysis</i> , 2017, 125, 127-135.	5.5	35
16	Catalytic depolymerization of coal char over iron-based catalyst: Potential method for producing high value-added chemicals. <i>Fuel</i> , 2017, 210, 329-333.	6.4	13
17	Interface Structure between Vitrinite and Inertinite from Shenmu Coal during Pyrolysis. <i>ACS Earth and Space Chemistry</i> , 2017, 1, 179-186.	2.7	8
18	Structural transformations and hydrocarbon generation of low-rank coal (vitrinite) during slow heating pyrolysis. <i>Fuel Processing Technology</i> , 2017, 167, 535-544.	7.2	41

#	ARTICLE	IF	CITATIONS
19	Change of the petrographic composition of lignite during the ex-situ lignite gasification. <i>Fuel</i> , 2017, 206, 219-229.	6.4	9
20	FTIR and Raman spectroscopy characterization of functional groups in various rank coals. <i>Fuel</i> , 2017, 206, 555-563.	6.4	456
21	Particle size influence on the pore development of nanopores in coal gasification chars: From micron to millimeter particles. <i>Carbon</i> , 2017, 112, 37-46.	10.3	32
22	Structural investigations of Eocene coals from foreland basin of central Nepal Himalaya. <i>Energy Exploration and Exploitation</i> , 2017, 35, 713-733.	2.3	15
23	On the fundamental difference of adsorption-pores systems between vitrinite- and inertinite-rich anthracite derived from the southern Sichuan basin, China. <i>Journal of Natural Gas Science and Engineering</i> , 2018, 53, 32-44.	4.4	22
24	Investigation on the structure evolution of pre and post explosion of coal dust using X-ray diffraction. <i>International Journal of Heat and Mass Transfer</i> , 2018, 120, 1162-1172.	4.8	46
25	Transformation of nitrogen functional forms and the accompanying chemical-structural properties emanating from pyrolysis of bituminous coals. <i>Applied Energy</i> , 2018, 216, 414-427.	10.1	34
26	Understanding of formation mechanisms of fine particles formed during rapid pyrolysis of biomass. <i>Fuel</i> , 2018, 216, 538-547.	6.4	11
27	Structural features of Qingdao petroleum coke from HRTEM lattice fringes: Distributions of length, orientation, stacking, curvature, and a large-scale image-guided 3D atomistic representation. <i>Carbon</i> , 2018, 129, 790-802.	10.3	91
28	Influence of chemical properties on CH ₄ adsorption capacity of anthracite derived from southern Sichuan Basin, China. <i>Marine and Petroleum Geology</i> , 2018, 89, 387-401.	3.3	18
29	ReaxFF simulations of petroleum coke sulfur removal mechanisms during pyrolysis and combustion. <i>Combustion and Flame</i> , 2018, 198, 146-157.	5.2	54
30	Charging mechanism analysis of macerals during triboelectrostatic enrichment process: Insights from relative dielectric constant, specific resistivity and X-ray diffraction. <i>Fuel</i> , 2018, 225, 533-541.	6.4	25
31	Emissivity Comparison between Chars and Demineralized Coal Chars under Oxyc Combustion Conditions. <i>Chemical Engineering and Technology</i> , 2018, 41, 1490-1496.	1.5	3
32	On the difference of graphitization behavior between vitrinite- and inertinite-rich anthracites during heat treatment. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2022, 44, 4991-5003.	2.3	6
33	Paleofloral dependence of coal methane sorption capacity. <i>International Journal of Coal Geology</i> , 2019, 211, 103232.	5.0	16
34	Comparative study of a vitrinite-rich and an inertinite-rich Witbank coal (South Africa) using pyrolysis-gas chromatography. <i>International Journal of Coal Science and Technology</i> , 2019, 6, 621-632.	6.0	4
35	Computer simulation of coal organic mass structure and its sorption properties. <i>International Journal of Coal Science and Technology</i> , 2019, 6, 438-444.	6.0	15
36	The carbon dioxide, methane and nitrogen high-pressure sorption properties of South African bituminous coals. <i>International Journal of Coal Geology</i> , 2019, 209, 40-53.	5.0	22

#	ARTICLE	IF	CITATIONS
37	Structural Differences of Spontaneous Combustion Prone Inertinite-Rich Chinese Lignite Coals: Insights from XRD, Solid-State ¹³ C NMR, LDIMS, and HRTEM. <i>Energy & Fuels</i> , 2019, 33, 4575-4584.	5.1	29
38	Crystallite Structure Characteristics and Its Influence on Methane Adsorption for Different Rank Coals. <i>ACS Omega</i> , 2019, 4, 20762-20772.	3.5	48
39	Estimation of heats of formation and combustion of coal. <i>Fuel</i> , 2019, 237, 536-544.	6.4	6
40	Physicochemical characterization of South African coals upon short-term flue gas exposure using conventional and advanced techniques. <i>Materials Science for Energy Technologies</i> , 2020, 3, 25-35.	1.8	3
41	A multi-level optical storage scheme via two-step picosecond laser irradiations: time/space modulations of microstructure and its optical property. <i>Semiconductor Science and Technology</i> , 2020, 35, 035025.	2.0	2
42	Nano-level resolution determination of aromatic nucleus in coal. <i>Fuel</i> , 2020, 262, 116532.	6.4	19
43	Macromolecular transformations for tectonically-deformed high volatile bituminous via HRTEM and XRD analyses. <i>Fuel</i> , 2020, 263, 116756.	6.4	42
44	Prediction and characterization of macromolecular structure of cutinite from luquan cutinitic liptobiolith with molecular simulation. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2020, , 1-16.	2.3	2
45	Study on the Liberation of Organic Macerals in Coal by Liquid Nitrogen Quenching Pretreatment. <i>Minerals (Basel, Switzerland)</i> , 2020, 10, 911.	2.0	3
46	Molecular Model Construction and Evaluation of Jincheng Anthracite. <i>ACS Omega</i> , 2020, 5, 10663-10670.	3.5	15
47	Mineralogical and geochemical characteristics of pyrometamorphic rocks induced by coal fires in Junggar Basin, Xinjiang, China. <i>Journal of Geochemical Exploration</i> , 2020, 213, 106511.	3.2	9
48	Insight on adsorption mechanism of coal molecules at different ranks. <i>Fuel</i> , 2020, 267, 117234.	6.4	52
49	A review of the state-of-the-art research on carbon structure evolution during the coking process: From plastic layer chemistry to 3D carbon structure establishment. <i>Fuel</i> , 2020, 271, 117657.	6.4	36
50	A study of chemical structural evolution of thermally altered coal and its effect on graphitization. <i>Fuel</i> , 2021, 283, 119295.	6.4	14
51	A multi-tool structural change investigation of Indian vitrinite rich bituminous coal due to CS ₂ /NMP interaction. <i>Journal of Molecular Liquids</i> , 2021, 323, 114599.	4.9	10
52	Characterization of Nanostructure Evolution in Coal Molecules of Different Ranks. <i>Journal of Nanoscience and Nanotechnology</i> , 2021, 21, 405-421.	0.9	4
53	Gasification of chars from tetralin liquefaction of 1.5 \AA^3 carbon-rich residues derived from waste coal fines in South Africa. <i>Journal of Thermal Analysis and Calorimetry</i> , 2022, 147, 2353-2367.	3.6	3
54	Macromolecular Structure Changes of Tectonically Deformed Coal: Evidence from Coal Pyrolysis, ¹³ C NMR, and XRD Experiments. <i>Energy & Fuels</i> , 2021, 35, 8711-8722.	5.1	5

#	ARTICLE	IF	CITATIONS
55	Molecular Structure Evaluation and Image-Guided Atomistic Representation of Marine Kerogen from Longmaxi Shale. <i>Energy & Fuels</i> , 2021, 35, 7981-7992.	5.1	8
56	The Chemical and Alignment Structural Properties of Coal: Insights from Raman, Solid-State ¹³ C NMR, XRD, and HRTEM Techniques. <i>ACS Omega</i> , 2021, 6, 11266-11279.	3.5	17
57	Aromatic cluster and graphite-like structure distinguished by HRTEM in thermally altered coal and their genesis. <i>Fuel</i> , 2021, 292, 120373.	6.4	21
58	A method to extract the content, radius and specific surface area of maceral compositions in coal reservoirs based on image modeling. <i>Journal of Petroleum Science and Engineering</i> , 2021, 201, 108419.	4.2	1
59	Effects of rotary triboelectrification technology on macerals separation for low-rank coal. <i>International Journal of Coal Preparation and Utilization</i> , 2022, 42, 3249-3263.	2.1	4
60	Steam gasification of Greek lignite and its chars by co-feeding CO ₂ toward syngas production with an adjustable H ₂ /CO ratio. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 28486-28500.	7.1	17
61	Micro-Raman Spectroscopy of Selected Macerals of the Huminite Group: An Example from the Szczerców Lignite Deposit (Central Poland). <i>Energies</i> , 2021, 14, 281.	3.1	3
62	HRTEM observation of morphological and structural evolution of aromatic fringes during the transition from coal to graphite. <i>Carbon</i> , 2022, 187, 133-144.	10.3	20
63	Structural transformations for a subbituminous coal, impact of temperature on gold-tube pyrolysis chars evaluated using HRTEM. <i>Fuel</i> , 2022, 311, 122581.	6.4	11
64	The study of enhanced gravity concentrator for maceral enrichment of low-rank coal with heavy medium. <i>International Journal of Coal Preparation and Utilization</i> , 2022, 42, 3777-3793.	2.1	13
65	Interaction of vitrinites in similar middle-rank coals during coking process. <i>Fuel</i> , 2022, 316, 123334.	6.4	4
66	Impact of coal damage on permeability evolution based on an improved permeability model. <i>Journal of Natural Gas Science and Engineering</i> , 2022, 101, 104509.	4.4	3
67	HRTEM analysis of the aggregate structure and ultrafine microporous characteristics of Xinjiang Zhundong coal under heat treatment. <i>Scientific Reports</i> , 2022, 12, 4994.	3.3	4
68	Structural alterations of aromatic fringes by HRTEM for Xinjing Vitrinite-rich anthracite: Impact of low-temperature pyrolysis. <i>Thermochimica Acta</i> , 2022, 713, 179230.	2.7	4
69	Insights into the thermal stability and conversion of carbon-based materials by using ReaxFF reactive force field: Recent advances and future directions. <i>Carbon</i> , 2022, 196, 840-866.	10.3	32
70	Experimental investigation and DFT calculation of different amine/ammonium salts adsorption on oxidized coal. <i>Chemical Physics</i> , 2022, 561, 111598.	1.9	13
71	Evaluation of the effect of silicon on the carbonization process of Colombian semi-anthracites. <i>Journal of Thermal Analysis and Calorimetry</i> , 2022, 147, 11729-11738.	3.6	2
72	Desorption of CH ₄ /CO ₂ from kerogen during explosive fracturing. <i>Fuel</i> , 2022, 324, 124741.	6.4	7

#	ARTICLE	IF	CITATIONS
73	Structure and evolution features of cutinite with different coal rank from stacking and arrangement of aromatic fringes in HRTEM. <i>Fuel</i> , 2022, 326, 124998.	6.4	5
74	Raman Spectroscopy of Lignite Gasification Char Morphotypes. <i>Energies</i> , 2022, 15, 6057.	3.1	1
75	Influence of Flotation Reagents on Separation Mechanism of Macerals: A Multi-Scale Study. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
76	Molecular structure characterization analysis and molecular model construction of anthracite. <i>PLoS ONE</i> , 2022, 17, e0275108.	2.5	3
77	Understanding coal quality and the critical importance of comprehensive coal analyses. <i>International Journal of Coal Geology</i> , 2022, 263, 104120.	5.0	19
78	Influence of flotation reagents on separation mechanism of macerals: A multi-scale study. <i>Fuel</i> , 2023, 333, 126480.	6.4	6
79	Molecular simulation study on the effect of coal metamorphism on the competitive adsorption of CO ₂ /CH ₄ in binary system. <i>Fuel</i> , 2023, 335, 127046.	6.4	10
80	Effect of pressure on the evolution of vitrinite graphitized mesophases: An experimental study on anthracite under high temperature and pressure. <i>International Journal of Coal Geology</i> , 2023, 267, 104187.	5.0	6
81	Construction and verification of vitrinite-rich and inertinite-rich Zhundong coal models at the aggregate level: new insights from the spatial arrangement and thermal behavior perspective. <i>RSC Advances</i> , 2023, 13, 7569-7584.	3.6	2
82	Simulation strategies for ReaxFF molecular dynamics in coal pyrolysis applications: A review. <i>Journal of Analytical and Applied Pyrolysis</i> , 2023, 170, 105882.	5.5	18
83	Change of the Petrographic Characteristics of Semi-Coke in the Iron Ore Sintering Process. <i>ACS Omega</i> , 2023, 8, 7922-7931.	3.5	0
84	Molecular dynamics simulations and experimental study on deconvolution of volatile "char interaction in coal pyrolysis: Insight into the role of O-containing compound species. <i>Chemical Engineering Science</i> , 2023, 277, 118874.	3.8	0
85	Structural Characterization and Molecular Model Construction of High-Ash Coal from Northern China. <i>Molecules</i> , 2023, 28, 5593.	3.8	3
86	HRTEM analysis of carbon structure evolution during the formation of metallurgical coke and impacts on coke quality. <i>Journal of Analytical and Applied Pyrolysis</i> , 2023, 174, 106124.	5.5	0
87	Construction and optimization of macromolecular structure model of Tiebei lignite. <i>PLoS ONE</i> , 2023, 18, e0289328.	2.5	1
88	Molecular simulations of hydrogen adsorption on coal with different ranks: Implications for hydrogen geo-storage. <i>International Journal of Hydrogen Energy</i> , 2024, 51, 10-20.	7.1	3
89	Research on CO ₂ /CH ₄ /N ₂ competitive adsorption characteristics of anthracite coal from Shanxi Sihe coal mine. <i>RSC Advances</i> , 2024, 14, 3498-3512.	3.6	0