Karen M Steel

List of Publications by Year
in descending order

56 papers	1,797 citations	236925 25 h-index	276875 41 g-index
56 all docs	56 docs citations	56 times ranked	1114 citing authors

#	Article	IF	Citations
1	Wear behaviour of polymeric materials reinforced with man-made fibres: A comprehensive review about fibre volume fraction influence on wear performance. Journal of Reinforced Plastics and Composites, 2022, 41, 215-241.	3.1	53
2	Influence of porosity on the reactivity of inertinite and vitrinite toward sodium hypochlorite: Implications for enhancing coal seam gas development. International Journal of Coal Geology, 2021, 237, 103709.	5.0	12
3	Understanding the multiple interactions of inertinite during pyrolysis/carbonisation with vitrinite: A study of two Australian coals of different rank. Fuel Processing Technology, 2021, 217, 106823.	7.2	9
4	Identification of preferential pathways in the pore microstructure of metallurgical coke and links to anisotropic strength properties. Fuel, 2021, 296, 120688.	6.4	6
5	Chemical stimulation for enhancing coal seam permeability: Laboratory study into permeability variation and coal structure examination. International Journal of Coal Geology, 2020, 219, 103375.	5.0	36
6	Development of a nickel extraction-mineral carbonation process: Analysis of leaching mechanisms using regenerated acid. Hydrometallurgy, 2020, 197, 105482.	4.3	11
7	Interactions between vitrinite and solid additives including inertinite during pyrolysis for coke-making considerations. Fuel Processing Technology, 2020, 201, 106321.	7.2	15
8	Effect of oxidation and silane surface treatments of coal powders on relative permeability in packed coal beds. Journal of Natural Gas Science and Engineering, 2019, 69, 102931.	4.4	5
9	X-ray CT observations of selective damage of mineralised synthetic particles by high voltage pulses. Minerals Engineering, 2019, 143, 106007.	4.3	12
10	Analysis of a reactive distillation process to recover tertiary amines and acid for use in a combined nickel extractionâ€mineral carbonation process. Environmental Progress and Sustainable Energy, 2019, 38, e13141.	2.3	3
11	The Impact of Cleat Connectivity on Coal Seam Gas Geomodelsâ€™ 3D Permeability. , 2019, , .		0
12	Use of FTIR, XPS, NMR to characterize oxidative effects of NaClO on coal molecular structures. International Journal of Coal Geology, 2019, 201, 1-13.	5.0	90
13	Coal permeability stimulation by NaClO oxidation. APPEA Journal, 2019, 59, 846.	0.2	0
14	A preliminary study of oxidant stimulation for enhancing coal seam permeability: Effects of sodium hypochlorite oxidation on subbituminous and bituminous Australian coals. International Journal of Coal Geology, 2018, 200, 36-44.	5.0	31
15	Oxidant stimulation for enhancing coal seam permeability: Swelling and solubilisation behaviour of unconfined coal particles in oxidants. Fuel, 2018, 221, 320-328.	6.4	44
16	Effect of rheological properties of mesophase pitch and coal mixtures on pore development in activated carbon discs with high compressive strength. Fuel Processing Technology, 2018, 177, 219-227.	7.2	19
17	X-ray Î¼CT investigations of the effects of cleat demineralization by HCl acidizing on coal permeability. Journal of Natural Gas Science and Engineering, 2018, 55, 206-218.	4.4	58
18	Examining mechanisms of metallurgical coke fracture using micro-CT imaging and analysis. Fuel Processing Technology, 2017, 155, 183-190.	7.2	27

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19	Use of rheometry and micro-CT analysis to understand pore structure development in coke. Fuel Processing Technology, 2017, 155, 106-113.	7.2	36
20	Interfacial Gas Enrichment at Hydrophobic Surfaces and the Origin of Promotion of Gas Hydrate Formation by Hydrophobic Solid Particles. Journal of Physical Chemistry C, 2017, 121, 3830-3840.	3.1	94
21	The effect of rank, lithotype and roughness on contact angle measurements in coal cleats. International Journal of Coal Geology, 2017, 179, 302-315.	5.0	37
22	Pore-Scale Numerical Investigation on Chemical Stimulation in Coal and Permeability Enhancement for Coal Seam Gas Production. Transport in Porous Media, 2017, 116, 335-351.	2.6	20
23	A study into the effect of cleat demineralisation by hydrochloric acid on the permeability of coal. Journal of Natural Gas Science and Engineering, 2016, 36, 931-942.	4.4	52
24	Acid-induced mineral alteration and its influence on the permeability and compressibility of coal. Journal of Natural Gas Science and Engineering, 2016, 33, 973-987.	4.4	72
25	Metastable zone width and nucleation threshold of aluminium hydroxyfluoride hydrate. Crystal Research and Technology, 2016, 51, 265-275.	1.3	7
26	The Effect of Rank and Lithotype on Coal Wettability and its Application to Coal Relative Permeability Models. , 2015, , .		9
27	The Influence of Cleat Demineralisation on the Compressibility of Coal. , 2015, , .		0
28	A regenerable precipitant-solvent system for CO 2 mitigation and metals recovery. International Journal of Greenhouse Gas Control, 2015, 42, 379-387.	4.6	3
29	Creation of microchannels in Bowen Basin coals using UV laser and reactive ion etching. International Journal of Coal Geology, 2015, 144-145, 48-57.	5.0	25
30	The precipitation and solubility of aluminium hydroxyfluoride hydrate between 30 and 70Â°C. Hydrometallurgy, 2015, 155, 79-87.	4.3	32
31	Influence of thermoplastic properties on coking pressure generation: Part IV â€“ Further evidence of the role of bubble coalescence in the mechanism for pressure generation. Fuel, 2014, 129, 102-110.	6.4	12
32	Conversion of CO2 into mineral carbonates using a regenerable buffer to control solution pH. Fuel, 2013, 111, 40-47.	6.4	22
33	Leaching of spent pot-lining with aluminium nitrate and nitric acid: Effect of reaction conditions and thermodynamic modelling of solution speciation. Hydrometallurgy, 2013, 134-135, 132-143.	4.3	63
34	Influence of thermoplastic properties on coking pressure generation: Part 3 â€“ Evidence and role of pore coalescence in the mechanism for pressure generation. Fuel, 2013, 103, 711-718.	6.4	11
35	Leaching of Spent Pot-Lining with Aluminum Anodizing Wastewaters: Fluoride Extraction and Thermodynamic Modeling of Aqueous Speciation. Industrial & Engineering Chemistry Research, 2012, 51, 8366-8377.	3.7	39
36	Treatment of Spent Pot-lining with Aluminum Anodizing Wastewaters: Selective Precipitation of Aluminum and Fluoride as an Aluminum Hydroxyfluoride Hydrate Product. Industrial & Engineering Chemistry Research, 2012, 51, 12712-12722.	3.7	26

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37	Influence of thermoplastic properties on coking pressure generation: Part 1 â€“ A study of single coals of various rank. Fuel, 2010, 89, 1590-1599.	6.4	26
38	Influence of coal thermoplastic properties on coking pressure generation: Part 2 â€“ A study of binary coal blends and specific additives. Fuel, 2010, 89, 1600-1615.	6.4	24
39	Use of Oscillatory Shear Rheometry and Thermogravimetric Analysis To Examine the Microstructural Changes during Coal Pyrolysis/Carbonization for the Prediction of IRSID Strength Indices. Energy & Fuels, 2009, 23, 2111-2117.	5.1	2
40	Recovery of fluoride values from spent pot-lining: Precipitation of an aluminium hydroxyfluoride hydrate product. Separation and Purification Technology, 2008, 61, 182-192.	7.9	109
41	Determination of the Effects Caused by Different Polymers on Coal Fluidity during Carbonization Using High-Temperature ¹H NMR and Rheometry. Energy & Fuels, 2008, 22, 471-479.	5.1	26
42	Use of high-temperature, high-torque rheometry to study the viscoelastic properties of coal during carbonization. Journal of Rheology, 2007, 51, 895-913.	2.6	12
43	Demineralization of a UK bituminous coal using HF and ferric ions. Fuel, 2007, 86, 2194-2200.	6.4	32
44	Understanding the mechanisms behind coking pressure: Relationship to pore structure. Fuel, 2007, 86, 2167-2178.	6.4	30
45	The possible role of fissure formation in the prevention of coking pressure generation. Fuel, 2006, 85, 19-24.	6.4	15
46	Evidence for network formation during the carbonization of coal from the combination of rheometry and 1H NMR techniques. Fuel, 2006, 85, 1821-1830.	6.4	9
47	Determination of the Effect of Different Additives in Coking Blends Using a Combination of in Situ High-Temperature1H NMR and Rheometry. Energy & Fuels, 2005, 19, 2423-2431.	5.1	21
48	Re-generation of hydrofluoric acid and selective separation of Si(IV) in a process for producing ultra-clean coal. Fuel Processing Technology, 2004, 86, 179-190.	7.2	21
49	Use of Rheometry and1H NMR Spectroscopy for Understanding the Mechanisms behind the Generation of Coking Pressure. Energy & Fuels, 2004, 18, 1250-1256.	5.1	25
50	Combustion behaviour of ultra clean coal obtained by chemical demineralisation. Fuel, 2003, 82, 2145-2151.	6.4	33
51	The production of ultra clean coal by sequential leaching with HF followed by HNO3. Fuel, 2003, 82, 1917-1920.	6.4	67
52	Production of ultra clean coal. Fuel Processing Technology, 2002, 76, 51-59.	7.2	21
53	Coal structure and reactivity changes induced by chemical demineralisation. Fuel Processing Technology, 2002, 79, 273-279.	7.2	72
54	Production of Ultra Clean Coal. Fuel Processing Technology, 2001, 70, 171-192.	7.2	100

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55	Production of Ultra Clean Coal. Fuel Processing Technology, 2001, 70, 193-219.	7.2	45
56	The production of ultra clean coal by chemical demineralisation. Fuel, 2001, 80, 2019-2023.	6.4	116