

Wen Nie

List of Publications by Year in descending order

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Version: 2024-02-01

103
papers

5,456
citations

53794

45
h-index

85541

71
g-index

103
all docs

103
docs citations

103
times ranked

984
citing authors

#	ARTICLE	IF	CITATIONS
1	Determining the optimal airflow rate to minimize air pollution in tunnels. <i>Chemical Engineering Research and Design</i> , 2022, 157, 115-130.	5.6	29
2	Research on negative pressure jet dust-removal water curtain technology for coal mine cleaner production. <i>Fuel</i> , 2022, 310, 122378.	6.4	30
3	Design and application of a dust suppression technology of the forcing air curtain in fully mechanized rock tunnelling faces. <i>Environmental Science and Pollution Research</i> , 2022, 29, 34943-34954.	5.3	11
4	A multi-indicator orthogonal investigation into the dust suppression effect of a shearer-mounted negative-pressure spraying device. <i>Powder Technology</i> , 2022, 399, 117135.	4.2	19
5	Prediction of dispersion behavior of typical exhaust pollutants from hydraulic support transporters based on numerical simulation. <i>Environmental Science and Pollution Research</i> , 2022, 29, 38110-38125.	5.3	25
6	Research on environmental dust pollution: ventilation and dust space-time evolution law of a fully mechanized mining face with 7-m mining height. <i>Environmental Science and Pollution Research</i> , 2022, 29, 33627-33644.	5.3	21
7	Optimization of spraying dust reduction technology of continuous miner machine and the dust environment in a tunnel, based on computational fluid dynamics (CFD) technology. <i>Powder Technology</i> , 2022, 398, 117044.	4.2	30
8	Research on air curtain dust control technology for environmental protection at fully mechanized working faces. <i>Environmental Science and Pollution Research</i> , 2022, 29, 43371-43384.	5.3	16
9	Comparative study of dust pollution and air quality of tunnelling anchor integrated machine working face with different ventilation. <i>Tunnelling and Underground Space Technology</i> , 2022, 122, 104377.	6.2	41
10	The Novel Monolithic Pr _{1-x} Ce _x Co _{0.5} Mn _{0.5} O ₃ Oxides Catalysts for the Selective Catalytic Reduction of NO _x by NH ₃ . <i>Catalysis Letters</i> , 2022, 152, 3642-3654.	2.6	9
11	Experimental and molecular dynamics simulation research on compound dust suppressant based on locust bean gum. <i>Advanced Powder Technology</i> , 2022, 33, 103485.	4.1	30
12	Dynamic dispersion and high-rise release of coal dust in the working surface of a large-scale mine and application of a new wet dust reduction technology. <i>Journal of Cleaner Production</i> , 2022, 351, 131356.	9.3	45
13	Study on dust-gas coupling pollution law and selection of optimal purification distance of air duct during tunneling process. <i>Environmental Science and Pollution Research</i> , 2022, 29, 74097-74117.	5.3	7
14	Distribution characteristics of an airflow-dust mixture and quantitative analysis of the dust absorption effect during tunnel sub-regional coal cutting. <i>Chemical Engineering Research and Design</i> , 2022, 164, 319-334.	5.6	15
15	Research on the blowing-spraying synergistic dust removal technology for clean environment in large-scale mechanization coal mine. <i>Fuel</i> , 2022, 324, 124508.	6.4	37
16	Green surfactant-modified TiO ₂ nanoparticles doped with La-Cr bimetal for NO _x removal. <i>Environmental Science and Pollution Research</i> , 2022, 29, 77711-77723.	5.3	4
17	Behavior of diesel particulate matter transport from subsidiary transportation vehicle in mine. <i>Environmental Pollution</i> , 2021, 270, 116264.	7.5	49
18	Study of the microscopic mechanism of lauryl glucoside wetting coal dust: Environmental pollution prevention and control. <i>Journal of Hazardous Materials</i> , 2021, 412, 125223.	12.4	112

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19	The control effect of 3D spiral wind-curtain generator on respirable dust pollution during tunnelling process. <i>Environmental Science and Pollution Research</i> , 2021, 28, 68212-68228.	5.3	13
20	An assessment of the dust suppression performance of a hybrid ventilation system during the tunnel excavation process: Numerical simulation. <i>Chemical Engineering Research and Design</i> , 2021, 152, 304-317.	5.6	33
21	Behavior of the particulate matter (PM) emitted by trackless rubber-tired vehicle (TRTV) at an idle speed under different movement conditions and ventilation optimization. <i>Science of the Total Environment</i> , 2021, 783, 147008.	8.0	36
22	Development and characterization of a dust suppression spray agent based on an adhesive NaAlg ^{gln} poly/polysaccharide polymer. <i>Science of the Total Environment</i> , 2021, 785, 147192.	8.0	42
23	Microscopic characterization and mesoscopic simulation of the interaction between chemically grafted copolymer and coal dust in an open-pit coal mining environment. <i>Sustainable Chemistry and Pharmacy</i> , 2021, 22, 100470.	3.3	3
24	Development and performance detection of higher precision optical sensor for coal dust concentration measurement based on Mie scattering theory. <i>Optics and Lasers in Engineering</i> , 2021, 144, 106642.	3.8	32
25	Onboard air curtain dust removal method for longwall mining: Environmental pollution prevention. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 106387.	6.7	8
26	Experimental and molecular dynamics simulation study of the effect of different surfactants on the wettability of low-rank coal. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105986.	6.7	43
27	Optimization of spray dust suppression device in return air tunnel of a coal mine based on CFD technology. <i>Building and Environment</i> , 2021, 203, 108059.	6.9	26
28	Research on the control law of dust in the main ventilation system in excavated tunnels for cleaner production. <i>Building and Environment</i> , 2021, 205, 108282.	6.9	16
29	Performance evaluation of Mn-Ce/cordierite catalyst modified by green surfactant to remove NO _x in underground mines at low temperatures. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 106499.	6.7	9
30	Effects of press-in airflow rate and the distance between the pressure duct and the side wall on ventilation dust suppression performance in an excavating tunnel. <i>Environmental Science and Pollution Research</i> , 2021, , 1.	5.3	6
31	Research Status of Pathogenesis of Pneumoconiosis and Dust Control Technology in Mine—A Review. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 10313.	2.5	16
32	Numerical simulation study on dust pollution characteristics and optimal dust control air flow rates during coal mine production. <i>Journal of Cleaner Production</i> , 2020, 248, 119197.	9.3	156
33	A Synthesis of a Dust Suppressant Using the Cellulose Extracted from Maize Straw. <i>Starch/Staerke</i> , 2020, 72, 1900187.	2.1	22
34	Synthesis and performance measurement of a modified polymer dust suppressant. <i>Advanced Powder Technology</i> , 2020, 31, 792-803.	4.1	42
35	Preparation and performance study of a novel polymeric spraying dust suppression agent with enhanced wetting and coagulation properties for coal mine. <i>Powder Technology</i> , 2020, 364, 901-914.	4.2	87
36	The preparation of a novel hydrogel based on crosslinked polymers for suppressing coal dusts. <i>Journal of Cleaner Production</i> , 2020, 249, 119343.	9.3	135

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37	Optimization of external spray negative-pressure mist-curtain dust suppression devices for roadheaders based on a multi-factor orthogonal experiment. <i>Journal of Cleaner Production</i> , 2020, 275, 123603.	9.3	38
38	Investigation of efficient dust control strategy for construction tunnels: Ventilation System's implications for cleaner production. <i>Building and Environment</i> , 2020, 180, 107032.	6.9	35
39	A study of the spray atomization and suppression of tunnel dust pollution based on a CFD-based simulation. <i>Journal of Cleaner Production</i> , 2020, 276, 123632.	9.3	46
40	The dust diffusion modeling and determination of optimal airflow rate for removing the dust generated during mine tunneling. <i>Building and Environment</i> , 2020, 178, 106846.	6.9	77
41	Study on Airflow Migration and Rock Dust Pollution Behavior in TBM Construction Tunnel. <i>Arabian Journal for Science and Engineering</i> , 2020, 45, 8785-8801.	3.0	5
42	Experimental Study on Dynamic Evolution Mechanism during Coal and Gas Outburst. <i>IOP Conference Series: Earth and Environmental Science</i> , 2020, 570, 042027.	0.3	1
43	CFD modeling of coal dust migration in an 8.8-meter-high fully mechanized mining face. <i>Energy</i> , 2020, 212, 118616.	8.8	48
44	Effect of wind curtain on dust extraction in rock tunnel working face: CFD and field measurement analysis. <i>Energy</i> , 2020, 197, 117214.	8.8	66
45	Numerical simulation of the multi-index orthogonal experiments on the spray dust-settling devices. <i>Powder Technology</i> , 2020, 371, 217-230.	4.2	38
46	Effect of spraying on coal dust diffusion in a coal mine based on a numerical simulation. <i>Environmental Pollution</i> , 2020, 264, 114717.	7.5	96
47	Study on the air curtain dust control technology with a dust purifying fan for fully mechanized mining face. <i>Powder Technology</i> , 2020, 374, 507-521.	4.2	35
48	Determining the effect of the non-ionic surfactant AEO9 on lignite adsorption and wetting via molecular dynamics (MD) simulation and experiment comparisons. <i>Fuel</i> , 2020, 278, 118339.	6.4	106
49	The optimization of a dust suppression and clean production scheme in a TBM-constructed tunnel based on an orthogonal experiment. <i>Chemical Engineering Research and Design</i> , 2020, 136, 353-370.	5.6	43
50	Optimization of dust removal performance of ventilation system in tunnel constructed using shield tunneling machine. <i>Building and Environment</i> , 2020, 173, 106745.	6.9	42
51	The development and application of a novel multi-radial-vortex-based ventilation system for dust removal in a fully mechanized tunnelling face. <i>Tunnelling and Underground Space Technology</i> , 2020, 98, 103253.	6.2	83
52	CFD simulations of air curtain dust removal effect by ventilation parameters during tunneling. <i>Advanced Powder Technology</i> , 2020, 31, 2456-2468.	4.1	43
53	A study on the dust control effect of the dust extraction system in TBM construction tunnels based on CFD computer simulation technology. <i>Advanced Powder Technology</i> , 2019, 30, 2059-2075.	4.1	73
54	Long-duct forced and short-duct exhaust ventilation system in tunnels: Formation and dust control analysis of pressure ventilation air curtain. <i>Chemical Engineering Research and Design</i> , 2019, 132, 367-377.	5.6	56

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55	Transient CFD modelling of space-time evolution of dust pollutants and air-curtain generator position during tunneling. <i>Journal of Cleaner Production</i> , 2019, 239, 117924.	9.3	108
56	Numerical simulation study on the coupling mechanism of composite-source airflowâ€‘dust field in a fully mechanized caving face. <i>Powder Technology</i> , 2019, 356, 443-457.	4.2	59
57	Research on mine dust suppression by spraying: Development of an air-assisted PM10 control device based on CFD technology. <i>Advanced Powder Technology</i> , 2019, 30, 2588-2599.	4.1	72
58	Multi-factor numerical simulation study on spray dust suppression device in coal mining process. <i>Energy</i> , 2019, 182, 544-558.	8.8	173
59	Modelling of ventilation and dust control effects during tunnel construction. <i>International Journal of Mechanical Sciences</i> , 2019, 160, 358-371.	6.7	75
60	The effects of the spraying pressure and nozzle orifice diameter on the atomizing rules and dust suppression performances of an external spraying system in a fully-mechanized excavation face. <i>Powder Technology</i> , 2019, 350, 62-80.	4.2	87
61	Development of Environmental Friendly Dust Suppressant Based on the Modification of Soybean Protein Isolate. <i>Processes</i> , 2019, 7, 165.	2.8	57
62	Research on tunnel ventilation systems: Dust Diffusion and Pollution Behaviour by air curtains based on CFD technology and field measurement. <i>Building and Environment</i> , 2019, 147, 444-460.	6.9	250
63	Preparation and characterization of a novel environmentally friendly coal dust suppressant. <i>Journal of Applied Polymer Science</i> , 2019, 136, 47354.	2.6	78
64	Effect of air flowrate on pollutant dispersion pattern of coal dust particles at fully mechanized mining face based on numerical simulation. <i>Fuel</i> , 2019, 239, 623-635.	6.4	190
65	Effects of spraying pressure and installation angle of nozzles on atomization characteristics of external spraying system at a fully-mechanized mining face. <i>Powder Technology</i> , 2019, 343, 754-764.	4.2	142
66	Development of a novel wind-assisted centralized spraying dedusting device for dust suppression in a fully mechanized mining face. <i>Environmental Science and Pollution Research</i> , 2019, 26, 3292-3307.	5.3	73
67	Preparation and characterization of a binaryâ€‘graftâ€‘based, waterâ€‘absorbing dust suppressant for coal transportation. <i>Journal of Applied Polymer Science</i> , 2019, 136, 47065.	2.6	45
68	The effects of the installation position of a multi-radial swirling air-curtain generator on dust diffusion and pollution rules in a fully-mechanized excavation face: A case study. <i>Powder Technology</i> , 2018, 329, 371-385.	4.2	120
69	Synthesis and performance measurement of environmentâ€‘friendly solidified dust suppressant for open pit coalmine. <i>Journal of Applied Polymer Science</i> , 2018, 135, 46505.	2.6	53
70	Effects of air volume ratio parameters on air curtain dust suppression in a rock tunnelâ€‘s fully-mechanized working face. <i>Advanced Powder Technology</i> , 2018, 29, 230-244.	4.1	173
71	Simulation experiments on the controllability of dust diffusion by means of multi-radial vortex airflow. <i>Advanced Powder Technology</i> , 2018, 29, 835-847.	4.1	95
72	Pattern characterization concerning spatial and temporal evolution of dust pollution associated with two typical ventilation methods at fully mechanized excavation faces in rock tunnels. <i>Powder Technology</i> , 2018, 334, 117-131.	4.2	97

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73	A synthesis and performance evaluation of a highly efficient ecological dust depressor based on the sodium lignosulfonate-acrylic acid graft copolymer. RSC Advances, 2018, 8, 11498-11508.	3.6	56
74	Solidifying dust suppressant based on modified chitosan and experimental study on its dust suppression performance. Adsorption Science and Technology, 2018, 36, 640-654.	3.2	98
75	The diffusion of dust in a fully-mechanized mining face with a mining height of 7m and the application of wet dust-collecting nets. Journal of Cleaner Production, 2018, 205, 463-476.	9.3	96
76	Diffusion and pollution of multi-source dusts in a fully mechanized coal face. Chemical Engineering Research and Design, 2018, 118, 93-105.	5.6	93
77	The effects of the pressure outlet's position on the diffusion and pollution of dust in tunnel using a shield tunneling machine. Energy and Buildings, 2018, 176, 232-245.	6.7	62
78	Preparation and experimental dust suppression performance characterization of a novel guar gum-modification-based environmentally-friendly degradable dust suppressant. Powder Technology, 2018, 339, 314-325.	4.2	100
79	Research on multi-radial swirling flow for optimal control of dust dispersion and pollution at a fully mechanized tunnelling face. Tunnelling and Underground Space Technology, 2018, 79, 293-303.	6.2	64
80	Technological aspects for underground coal gasification in steeply inclined thin coal seams at Zhongliangshan coal mine in China. Fuel, 2017, 191, 486-494.	6.4	51
81	The effects of ventilation parameters on the migration behaviors of head-on dusts in the heading face. Tunnelling and Underground Space Technology, 2017, 70, 400-408.	6.2	94
82	A Model of Lignite Macromolecular Structures and Its Effect on the Wettability of Coal: A Case Study. Energy & Fuels, 2017, 31, 13834-13841.	5.1	18
83	The development and testing of a novel external-spraying injection dedusting device for the heading machine in a fully-mechanized excavation face. Chemical Engineering Research and Design, 2017, 109, 716-731.	5.6	80
84	The diffusion and pollution mechanisms of airborne dusts in fully-mechanized excavation face at mesoscopic scale based on CFD-DEM. Chemical Engineering Research and Design, 2016, 104, 240-253.	5.6	70
85	A novel spraying/negative-pressure secondary dust suppression device used in fully mechanized mining face: A case study. Chemical Engineering Research and Design, 2016, 103, 126-135.	5.6	108
86	Flame retardant, thermal, and mechanical properties of glass fiber/nanoclay reinforced phenol-urea-formaldehyde foam. Polymer Composites, 2016, 37, 2323-2332.	4.6	37
87	Effect of suppressing dust by multi-direction whirling air curtain on fully mechanized mining face. International Journal of Mining Science and Technology, 2016, 26, 629-635.	10.3	32
88	Numerical simulation of peak strength reduction in rock under uniaxial cyclical compression. , 2016, , 281-285.		0
89	Estimation of areas of experimental rainfall-eroded soil slope based on moving average time series models. , 2016, , 471-475.		1
90	Synthesis and characterization of a temperature-sensitive hydrogel based on sodium alginate and N-isopropylacrylamide. Polymers for Advanced Technologies, 2015, 26, 1340-1345.	3.2	25

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91	Effects of Oxygen Element and Oxygen-Containing Functional Groups on Surface Wettability of Coal Dust with Various Metamorphic Degrees Based on XPS Experiment. Journal of Analytical Methods in Chemistry, 2015, 2015, 1-8.	1.6	69
92	Analytical research on dynamic temperature field of overburden in goaf fire-area under piecewise-linear third boundary condition. International Journal of Heat and Mass Transfer, 2015, 90, 812-824.	4.8	14
93	Numerical simulation and disaster prevention for catastrophic fire airflow of main air-intake belt roadway in coal mine—a case study. Journal of Central South University, 2015, 22, 2359-2368.	3.0	12
94	Synthesis and characterization of phenolâ€¦ureaâ€¦formaldehyde foaming resin used to block air leakage in mining. Polymer Composites, 2014, 35, 2056-2066.	4.6	33
95	Numerical simulation of seepage pressure field of coal seam water-injection in high and low pressure with one-way and bi-directional drilling holes. WIT Transactions on Engineering Sciences, 2014, , .	0.0	0
96	Research on Eddy Air-Curtain Dust Controlled Flow Field in Hard Rock Mechanized Driving Face. Journal of Networks, 2013, 8, .	0.4	5
97	Research and practice on fluctuation water injection technology at low permeability coal seam. Safety Science, 2012, 50, 851-856.	4.9	99
98	Simulation on dissolute and dust dispersion in comprehensive mechanized heading face with forced-exhaust ventilation. Science in China Series A: Mathematics, 2011, 17, 298-304.	0.2	3
99	Dust Simulation and Application of Forced and Exhausted Mixed Ventilation System in Half Coal-Rock Fully-Mechanized Excavation Face. Advanced Materials Research, 0, 524-527, 285-291.	0.3	1
100	Numerical Simulation of Eddy Air-Curtain Dust Controlled Flow Field in Hard Rock Mechanized Driving Face. Applied Mechanics and Materials, 0, 214, 440-444.	0.2	0
101	Numerical Simulation Study on Air-Flow Migration Law about Vortex Air Curtain of Plane Wall Fan Drum. Applied Mechanics and Materials, 0, 241-244, 1285-1292.	0.2	0
102	Experiment and Research on the Mechanism of Foam Dedusting Agent. Advanced Materials Research, 0, 955-959, 977-980.	0.3	1
103	The Research and Application of Efficient Dust Control System for Whole-Rock Comprehensive Mechanization Driving Face. Advanced Materials Research, 0, 955-959, 1020-1023.	0.3	1