

Chungen Yin

List of Publications by Year in descending order

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67
papers

3,419
citations

172207

29
h-index

138251

58
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69
all docs

69
docs citations

69
times ranked

2471
citing authors

#	ARTICLE	IF	CITATIONS
1	Grate-firing of biomass for heat and power production. <i>Progress in Energy and Combustion Science</i> , 2008, 34, 725-754.	15.8	402
2	Microwave-assisted pyrolysis of biomass for liquid biofuels production. <i>Bioresource Technology</i> , 2012, 120, 273-284.	4.8	317
3	Oxy-fuel combustion of pulverized fuels: Combustion fundamentals and modeling. <i>Applied Energy</i> , 2016, 162, 742-762.	5.1	280
4	New Weighted Sum of Gray Gases Model Applicable to Computational Fluid Dynamics (CFD) Modeling of Oxy-fuel Combustion: Derivation, Validation, and Implementation. <i>Energy & Fuels</i> , 2010, 24, 6275-6282.	2.5	202
5	Investigation of the flow, combustion, heat-transfer and emissions from a 609MW utility tangentially fired pulverized-coal boiler. <i>Fuel</i> , 2002, 81, 997-1006.	3.4	137
6	Mathematical Modeling and Experimental Study of Biomass Combustion in a Thermal 108 MW Grate-Fired Boiler. <i>Energy & Fuels</i> , 2008, 22, 1380-1390.	2.5	130
7	Modelling the motion of cylindrical particles in a nonuniform flow. <i>Chemical Engineering Science</i> , 2003, 58, 3489-3498.	1.9	126
8	Chemistry and radiation in oxy-fuel combustion: A computational fluid dynamics modeling study. <i>Fuel</i> , 2011, 90, 2519-2529.	3.4	106
9	Use of numerical modeling in design for co-firing biomass in wall-fired burners. <i>Chemical Engineering Science</i> , 2004, 59, 3281-3292.	1.9	92
10	Predicting coal ash fusion temperature with a back-propagation neural network model. <i>Fuel</i> , 1998, 77, 1777-1782.	3.4	91
11	On gas and particle radiation in pulverized fuel combustion furnaces. <i>Applied Energy</i> , 2015, 157, 554-561.	5.1	82
12	Co-firing straw with coal in a swirl-stabilized dual-feed burner: Modelling and experimental validation. <i>Bioresource Technology</i> , 2010, 101, 4169-4178.	4.8	78
13	Further study of the gas temperature deviation in large-scale tangentially coal-fired boilers. <i>Fuel</i> , 2003, 82, 1127-1137.	3.4	77
14	Refined Weighted Sum of Gray Gases Model for Air-Fuel Combustion and Its Impacts. <i>Energy & Fuels</i> , 2013, 27, 6287-6294.	2.5	69
15	Experimental Study on Effects of Particle Shape and Operating Conditions on Combustion Characteristics of Single Biomass Particles. <i>Energy & Fuels</i> , 2013, 27, 507-514.	2.5	69
16	Biomass co-firing under oxy-fuel conditions: A computational fluid dynamics modelling study and experimental validation. <i>Fuel Processing Technology</i> , 2014, 120, 22-33.	3.7	65
17	A novel corner-fired boiler system of improved efficiency and coal flexibility and reduced NOx emissions. <i>Applied Energy</i> , 2019, 238, 453-465.	5.1	65
18	Methods to improve prediction performance of ANN models. <i>Simulation Modelling Practice and Theory</i> , 2003, 11, 211-222.	2.2	63

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19	Municipal solid waste incineration in a packed bed: A comprehensive modeling study with experimental validation. <i>Applied Energy</i> , 2019, 247, 127-139.	5.1	63
20	Pulverized straw combustion in a low-NOx multifuel burner: Modeling the transition from coal to straw. <i>Fuel</i> , 2010, 89, 3051-3062.	3.4	55
21	Turbulence modulation in dilute particle-laden flow. <i>International Journal of Heat and Fluid Flow</i> , 2009, 30, 331-338.	1.1	46
22	Characterizing and modeling of an 88MW grate-fired boiler burning wheat straw: Experience and lessons. <i>Energy</i> , 2012, 41, 473-482.	4.5	46
23	Oxy-coal combustion in an entrained flow reactor: Application of specific char and volatile combustion and radiation models for oxy-firing conditions. <i>Energy</i> , 2013, 62, 255-268.	4.5	44
24	Nongray-Gas Effects in Modeling of Large-Scale Oxy-Fuel Combustion Processes. <i>Energy & Fuels</i> , 2012, 26, 3349-3356.	2.5	40
25	Experimental and modeling study of flash calcination of kaolinite rich clay particles in a gas suspension calciner. <i>Applied Clay Science</i> , 2015, 103, 10-19.	2.6	40
26	Advanced modelling and testing of a 13 MW th waste wood-fired grate boiler with recycled flue gas. <i>Energy Conversion and Management</i> , 2016, 125, 230-241.	4.4	38
27	Flash calcination of kaolinite rich clay and impact of process conditions on the quality of the calcines: A way to reduce CO2 footprint from cement industry. <i>Applied Energy</i> , 2016, 162, 1218-1224.	5.1	36
28	A Novel Non-Linear Programming-Based Coal Blending Technology for Power Plants. <i>Chemical Engineering Research and Design</i> , 2000, 78, 118-124.	2.7	35
29	Calcination of kaolinite clay particles for cement production: A modeling study. <i>Cement and Concrete Research</i> , 2014, 61-62, 11-19.	4.6	33
30	Causes and mitigation of gas temperature deviation in tangentially fired tower-type boilers. <i>Applied Thermal Engineering</i> , 2018, 139, 135-143.	3.0	32
31	Physical characterization of biomass fuels prepared for suspension firing in utility boilers for CFD modelling. <i>Biomass and Bioenergy</i> , 2007, 31, 318-325.	2.9	29
32	Comprehensive Study of Ignition and Combustion of Single Wooden Particles. <i>Energy & Fuels</i> , 2013, 27, 1061-1072.	2.5	28
33	Engineering bed models for solid fuel conversion process in grate-fired boilers. <i>Energy</i> , 2014, 77, 244-253.	4.5	28
34	Advanced CFD modelling of air and recycled flue gas staging in a waste wood-fired grate boiler for higher combustion efficiency and greater environmental benefits. <i>Journal of Environmental Management</i> , 2018, 218, 200-208.	3.8	28
35	New Fuel Air Control Strategy for Reducing NO _x Emissions from Corner-Fired Utility Boilers at Medium-Low Loads. <i>Energy & Fuels</i> , 2017, 31, 6689-6699.	2.5	27
36	More efficient and environmentally friendly combustion of low-rank coal in a down-fired boiler by a simple but effective optimization of staged-air windbox. <i>Fuel Processing Technology</i> , 2019, 194, 106118.	3.7	27

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37	Effects of moisture release and radiation properties in pulverized fuel combustion: A CFD modelling study. <i>Fuel</i> , 2016, 165, 252-259.	3.4	26
38	Prediction of air-fuel and oxy-fuel combustion through a generic gas radiation property model. <i>Applied Energy</i> , 2017, 189, 449-459.	5.1	26
39	Modelling of heating and evaporation of n-Heptane droplets: Towards a generic model for fuel droplet/particle conversion. <i>Fuel</i> , 2015, 141, 64-73.	3.4	22
40	A detailed pyrolysis model for a thermally large biomass particle. <i>Fuel</i> , 2020, 278, 118397.	3.4	22
41	Towards a better understanding of biomass suspension co-firing impacts via investigating a coal flame and a biomass flame in a swirl-stabilized burner flow reactor under same conditions. <i>Fuel Processing Technology</i> , 2012, 98, 65-73.	3.7	21
42	Advancing grate-firing for greater environmental impacts and efficiency for decentralized biomass/wastes combustion. <i>Energy Procedia</i> , 2017, 120, 373-379.	1.8	21
43	Development in biomass preparation for suspension firing towards higher biomass shares and better boiler performance and fuel rangeability. <i>Energy</i> , 2020, 196, 117129.	4.5	20
44	Preliminary Modelling Study of Ice Accretion on Wind Turbines. <i>Energy Procedia</i> , 2014, 61, 258-261.	1.8	16
45	The impacts of different profiles of the grate inlet conditions on freeboard CFD in a waste wood-fired grate boiler. <i>Applied Energy</i> , 2020, 268, 115055.	5.1	16
46	A simplified kinetic model based on a universal description for solid fuels pyrolysis: Theoretical derivation, experimental validation, and application demonstration. <i>Energy</i> , 2021, 225, 120133.	4.5	12
47	Advanced simulation of a 750t/d municipal solid waste grate boiler to better accommodate feedstock changes due to waste classification. <i>Energy</i> , 2022, 254, 124338.	4.5	12
48	Euler-Lagrange simulation of gas-solid pipe flow with smooth and rough wall boundary conditions. <i>Powder Technology</i> , 2012, 225, 32-42.	2.1	11
49	Transient heating and evaporation of moving mono-component liquid fuel droplets. <i>Applied Thermal Engineering</i> , 2016, 104, 497-503.	3.0	11
50	A detailed computational fluid dynamics model on biomass pellet smoldering combustion and its parametric study. <i>Chemical Engineering Science</i> , 2021, 231, 116247.	1.9	10
51	Combustion interactions in oxy-fuel firing of coal blends: An experimental and numerical study. <i>Journal of the Energy Institute</i> , 2021, 94, 11-21.	2.7	10
52	A drying model for thermally large biomass particle pyrolysis. <i>Energy Procedia</i> , 2019, 158, 1294-1302.	1.8	8
53	The fractal dimension of calcined limestone and its sulfur-removal reactivity. <i>Energy</i> , 1997, 22, 1051-1058.	4.5	4
54	Simulation of Flash Dehydroxylation of Clay Particle Using gPROMS: A Move Towards Green Concrete. <i>Energy Procedia</i> , 2014, 61, 556-559.	1.8	4

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55	A gas radiation property model applicable to general combustion CFD and its demonstration in oxy-fuel combustion simulation. Energy Procedia, 2017, 120, 564-571.	1.8	4
56	D206 MODELING OF PULVERIZED COAL AND BIOMASS CO-FIRING IN A 150 KW SWIRLING-STABILIZED BURNER AND EXPERIMENTAL VALIDATION(Biomass-5). The Proceedings of the International Conference on Power Engineering (ICOPE), 2009, 2009.2, _2-305_-_2-310_.	0.0	4
57	Transient Heating and Evaporation of Moving Fuel Droplets. Energy Procedia, 2014, 61, 37-40.	1.8	3
58	Suspension-firing of biomass for heat and power generation: The perspectives of a closed model for non-spherical particle tracking. Applied Thermal Engineering, 2020, 171, 115110.	3.0	3
59	Biomass co-firing. , 2013, , 84-105.		2
60	Coal and biomass cofiring. , 2019, , 89-116.		1
61	Modeling and Experiments of Biomass Combustion in a Large-scale Grate Boiler. , 2007, , 1173-1179.		1
62	A Computational Fluid Dynamics Analysis of Heat Transfer in an Air-Cooled Proton Exchange Membrane Fuel Cell with Transient Boundary Conditions. ECS Transactions, 2020, 98, 255-263.	0.3	1
63	Development of CFD-based icing model for wind turbines: A case study of ice sensor. , 2015, , .		0
64	Modelling of Hot Surface Ignition Within Gas Turbines Subject to Flammable Gas in the Intake. , 2017, , .		0
65	Application of a New Statistical Model for the Description of Solid Fuel Decomposition in the Analysis of Artemisia apiacea Pyrolysis. Energies, 2021, 14, 5789.	1.6	0
66	New H ₂ O weighted sum of gray gases model for natural convection flows within large cavities. Journal of Physics: Conference Series, 2021, 2116, 012064.	0.3	0
67	A Feasibility Study of Placing a Heated Turbulence Grid in Front of an Air-Cooled Fuel Cell Stack in Freezing Conditions. ECS Transactions, 2022, 108, 119-130.	0.3	0