Jochen Strähle

List of Publications by Year
in descending order

62 papers	2,273 citations	201575 27 h-index	223716 46 g-index
62 all docs	62 docs citations	62 times ranked	1465 citing authors

#	Article	IF	Citations
1	Carbonate looping experiments in a 1MWth pilot plant and model validation. Fuel, 2014, 127, 13-22.	3.4	192
2	Design and operation of a 1 MWth chemical looping plant. Applied Energy, 2014, 113, 1490-1495.	5.1	176
3	Chemical looping combustion of hard coal in a 1 MWth pilot plant using ilmenite as oxygen carrier. Applied Energy, 2015, 157, 288-294.	5.1	142
4	Modeling and investigation start-up procedures of a combined cycle power plant. Applied Energy, 2008, 85, 1173-1189.	5.1	114
5	Chemical looping combustion of hard coal and torrefied biomass in a 1 MW th pilot plant. International Journal of Greenhouse Gas Control, 2017, 65, 149-159.	2.3	88
6	Extended CFD/DEM model for the simulation of circulating fluidized bed. Advanced Powder Technology, 2013, 24, 403-415.	2.0	83
7	Dynamic simulation of a supercritical once-through heat recovery steam generator during load changes and start-up procedures. Applied Energy, 2009, 86, 1274-1282.	5.1	77
8	Carbonate looping process simulation using a 1D fluidized bed model for the carbonator. International Journal of Greenhouse Gas Control, 2011, 5, 686-693.	2.3	75
9	Simulation of the Carbonate Looping Process for Post‐Combustion CO_2 Capture from a Coal‐Fired Power Plant. Chemical Engineering and Technology, 2009, 32, 435-442.	0.9	71
10	Chemical-Looping Combustion of Hard Coal: Autothermal Operation of a 1 MWth Pilot Plant. Journal of Energy Resources Technology, Transactions of the ASME, 2016, 138, .	1.4	64
11	Numerical investigation and comparison of coarse grain CFD – DEM and TFM in the case of a 1 MW th fluidized bed carbonator simulation. Chemical Engineering Science, 2017, 163, 189-205.	1.9	61
12	Feasibility study on the carbonate looping process for post-combustion CO_2 capture from coal-fired power plants. Energy Procedia, 2009, 1, 1313-1320.	1.8	50
13	CO_2 capture from waste-to-energy plants: Techno-economic assessment of novel integration concepts of calcium looping technology. Resources, Conservation and Recycling, 2020, 162, 104973.	5.3	50
14	Long-term pilot testing of the carbonate looping process in 1 MWth scale. Fuel, 2017, 210, 892-899.	3.4	47
15	Comparison of three different CFD methods for dense fluidized beds and validation by a cold flow experiment. Particuology, 2016, 29, 34-47.	2.0	46
16	Release of sulfur and chlorine gas species during coal combustion and pyrolysis in an entrained flow reactor. Fuel, 2017, 201, 105-110.	3.4	46
17	On the application of the exponential wide band model to the calculation of radiative heat transfer in one- and two-dimensional enclosures. International Journal of Heat and Mass Transfer, 2002, 45, 2129-2139.	2.5	41
18	Development of a process model for coal chemical looping combustion and validation against 100 kWth tests. Applied Energy, 2015, 157, 433-448.	5.1	41

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19	3-D numerical simulation for co-firing of torrefied biomass in a pulverized-fired 1 MWth combustion chamber. Energy, 2015, 85, 105-116.	4.5	35
20	Coarse grain 3D CFD-DEM simulation and validation with capacitance probe measurements in a circulating fluidized bed. Chemical Engineering Science, 2019, 196, 37-53.	1.9	35
21	Sulfur and Chlorine Gas Species Formation during Coal Pyrolysis in Nitrogen and Carbon Dioxide Atmosphere. Energy & Fuels, 2016, 30, 7713-7720.	2.5	34
22	Process Control Strategies in Chemical Looping Gasification—A Novel Process for the Production of Biofuels Allowing for Net Negative CO2 Emissions. Applied Sciences (Switzerland), 2020, 10, 4271.	1.3	34
23	Quantification of the influence of parameters determining radiative heat transfer in an oxy-fuel operated boiler. Fuel Processing Technology, 2017, 157, 76-89.	3.7	33
24	Design and operation of a 300 kW th indirectly heated carbonate looping pilot plant. International Journal of Greenhouse Gas Control, 2016, 54, 272-281.	2.3	30
25	Investigation of the fuel influence on the carbonate looping process in 1 MWth scale. Fuel Processing Technology, 2018, 169, 170-177.	3.7	30
26	Extended Euler–Euler model for the simulation of a 1 MWth chemical–looping pilot plant. Energy, 2015, 93, 2395-2405.	4.5	28
27	Euler-Euler CFD simulation of the fuel reactor of a 1 MWth chemical-looping pilot plant: Influence of the drag models and specularity coefficient. Fuel, 2017, 200, 435-446.	3.4	28
28	Long-term Carbonate Looping Testing in a 1 MWth Pilot Plant with Hard Coal and Lignite. Energy Procedia, 2017, 114, 179-190.	1.8	27
29	Numerical CFD simulation of 1 MWth circulating fluidized bed using the coarse grain discrete element method with homogenous drag models and particle size distribution. Fuel Processing Technology, 2018, 169, 84-93.	3.7	27
30	Development and validation of a 1D process model with autothermal operation of a 1 MW th chemical looping pilot plant. International Journal of Greenhouse Gas Control, 2018, 73, 29-41.	2.3	26
31	Investigation of gas and particle radiation modelling in wet oxy-coal combustion atmospheres. International Journal of Heat and Mass Transfer, 2019, 133, 1026-1040.	2.5	26
32	Design of a 1 MWth Pilot Plant for Chemical Looping Gasification of Biogenic Residues. Energies, 2021, 14, 2581.	1.6	26
33	Investigation of chemical looping combustion of natural gas at 1 MWth scale. Proceedings of the Combustion Institute, 2019, 37, 4353-4360.	2.4	25
34	Reactive two–fluid model for chemical–looping combustion – Simulation of fuel and air reactors. International Journal of Greenhouse Gas Control, 2018, 76, 175-192.	2.3	24
35	Assessment of the re-ordered wide band model for non-grey radiative transfer calculations in 3D enclosures. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 1622-1640.	1.1	23
36	Experimental investigations in a demonstration plant for fluidized bed gasification of multiple feedstock's in 0.5 MW th scale. Fuel, 2017, 205, 286-296.	3.4	23

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37	Experimental measurements for torrefied biomass Co-combustion in a 1 MWth pulverized coal-fired furnace. Journal of the Energy Institute, 2020, 93, 833-846.	2.7	23
38	Technical and Economical Assessment of the Indirectly Heated Carbonate Looping Process. Journal of Energy Resources Technology, Transactions of the ASME, 2016, 138, .	1.4	22
39	The EU-FP7 Project SUCCESS â€" Scale-up of Oxygen Carrier for Chemical Looping Combustion using Environmentally Sustainable Materials. Energy Procedia, 2017, 114, 395-406.	1.8	21
40	Combustion of solid recovered fuels within the calcium looping process â€" Experimental demonstration at 1 MWth scale. Experimental Thermal and Fluid Science, 2020, 113, 110023.	1.5	21
41	Scale-up of the carbonate looping process to a 20â€¯MWth pilot plant based on long-term pilot tests. International Journal of Greenhouse Gas Control, 2019, 88, 332-341.	2.3	18
42	Performance of the carbonator and calciner during long-term carbonate looping tests in a 1 MWth pilot plant. Journal of Environmental Chemical Engineering, 2020, 8, 103578.	3.3	17
43	Operation of a 1 MWth calcium looping pilot plant firing waste-derived fuels in the calciner. Powder Technology, 2020, 372, 267-274.	2.1	17
44	HTWâ„¢-gasification of high volatile bituminous coal in a 500â€¯kWth pilot plant. Fuel, 2019, 250, 306-314.	3.4	15
45	Release of nitrogen, sulfur and chlorine species from coal in carbon dioxide atmosphere. Fuel, 2021, 284, 119279.	3.4	15
46	Efficient CO2 capture from lime production by an indirectly heated carbonate looping process. International Journal of Greenhouse Gas Control, 2021, 112, 103430.	2.3	12
47	Validation of a Detailed Reaction Mechanism for Sulfur Species in Coal Combustion. Combustion Science and Technology, 2014, 186, 540-551.	1.2	11
48	Experimental and modeling assessment of sulfur release from coal under low and high heating rates. Proceedings of the Combustion Institute, 2021, 38, 4053-4061.	2.4	11
49	Techno-economic assessment of polygeneration based on fluidized bed gasification. Fuel, 2019, 250, 285-291.	3.4	10
50	Flexibility of CFB Combustion: An Investigation of Co-Combustion with Biomass and RDF at Part Load in Pilot Scale. Energies, 2020, 13, 4665.	1.6	10
51	Simulation of a CFB Boiler Integrated With a Thermal Energy Storage System During Transient Operation. Frontiers in Energy Research, 2020, 8, .	1.2	10
52	Comparison of CFD Simulations with Measurements of Gaseous Sulfur Species Concentrations in a Pulverized Coal Fired 1 MW$_{th}$ Furnace. Energy & Fuels, 2016, 30, 9836-9849.	2.5	9
53	Assessment of the operability of a 20 MWth calcium looping demonstration plant by advanced process modelling. International Journal of Greenhouse Gas Control, 2018, 75, 224-234.	2.3	9
54	Techno-economic assessment of alternative fuels in second-generation carbon capture and storage processes. Mitigation and Adaptation Strategies for Global Change, 2020, 25, 149-164.	1.0	9

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55	A MEAN FLUX DISCRETE ORDINATES INTERPOLATION SCHEME FOR GENERAL CO-ORDINATES. , 2001, , .		8
56	Wide band correlated-k approaches for non-grey radiation modelling in oxy-fuel combustion with dry recycling. Fuel, 2011, 90, 3007-3013.	3.4	7
57	Simulation Study of the Formation of Corrosive Gases in Coal Combustion in an Entrained Flow Reactor. Energies, 2020, 13, 4523.	1.6	6
58	Special Issue â€œThermochemical Conversion Processes for Solid Fuels and Renewable Energiesâ€. Applied Sciences (Switzerland), 2021, 11, 1907.	1.3	5
59	CFD Simulation of an Oxy-fuel Demonstration Power Plant with Application of a WSGG radiation model. Energy Procedia, 2019, 158, 1993-1998.	1.8	3
60	Eulerâ€Lagrangeâ€Modell zur Simulation des Carbonateâ€Loopingâ€Prozesses. Chemie-Ingenieur-Technik, 2020, 92, 648-658.	0.4	3
61	Acceleration of Load Changes by Controlling the Operating Parameters in CFB Co-Combustion. Frontiers in Energy Research, 2021, 9, .	1.2	2
62	Efficient CO2 Capture from Lime Production by an Indirectly Heated Carbonate Looping Process. SSRN Electronic Journal, 0, , .	0.4	1