Hannes Gerhardter

List of Publications by Year
in descending order

21 papers	194 citations	1039406 9 h-index	1058022 14 g-index
21 all docs	21 docs citations	21 times ranked	122 citing authors

#	Article	IF	Citations
1	Characterization of the temperature distribution on steel tubes for different operating conditions in a reheating furnace using CFD and three different measuring methods. Applied Thermal Engineering, 2018, 133, 39-48.	3.0	27
2	CFD-based optimization of a transient heating process in a natural gas fired furnace using neural networks and genetic algorithms. Applied Thermal Engineering, 2018, 138, 217-234.	3.0	17
3	Development and application of a numerically efficient model describing a rotary hearth furnace using CFD. Energy, 2019, 180, 79-89.	4.5	17
4	Development of a numerically efficient CFD model to predict transient temperature distribution of mother tubes moving translative and rotative through a gas fired furnace. Applied Thermal Engineering, 2017, 123, 290-300.	3.0	16
5	Numerical and experimental investigation of scale formation on steel tubes in a real-size reheating furnace. International Journal of Heat and Mass Transfer, 2019, 129, 460-467.	2.5	16
6	Particle classification and drag coefficients of irregularly-shaped combustion residues with various size and shape. Powder Technology, 2019, 345, 405-414.	2.1	15
7	Modelling convective heat transfer to non-spherical particles. Powder Technology, 2019, 343, 245-254.	2.1	15
8	Evaluation of drag models for particles and powders with non-uniform size and shape. Powder Technology, 2018, 330, 152-163.	2.1	14
9	Modelling approach to predict the fire-related heat transfer in porous gypsum based on multi-phase simulations including water vapour transport, phase change and radiative heat transfer. Applied Thermal Engineering, 2022, 206, 118013.	3.0	10
10	Numerical model incorporating different oxidizer in a reheating furnace fired with natural gas. Fuel, 2020, 268, 117185.	3.4	8
11	Validation of a coupled 3D CFD simulation model for an oxy-fuel cross-fired glass melting furnace with electric boosting. Applied Thermal Engineering, 2021, 195, 117166.	3.0	8
12	Determining the heating characteristics of non-spherical particles in combusting flows. Applied Thermal Engineering, 2019, 151, 124-133.	3.0	7
13	Assessment of a novel numerical model for combustion and in-flight heating of particles in an industrial furnace. Journal of the Energy Institute, 2018, 91, 817-827.	2.7	6
14	Influences of turbulence modeling on particle-wall contacts in numerical simulations of industrial furnaces for thermal particle treatment. Powder Technology, 2020, 373, 497-509.	2.1	6
15	Development of a numerically efficient approach based on coupled <scp>CFD</scp>/<scp>FEM</scp> analysis for virtual fire resistance testsâ€”Part B: Deformation process of a steel structure. Fire and Materials, 2020, 44, 704-723.	0.9	4
16	In-flame spheroid formation from non-spherical slag particles â€“ A numerical and experimental study. International Journal of Heat and Mass Transfer, 2020, 151, 119412.	2.5	2
17	Effects on numerical calculations of in-flight particle trajectories and temperatures considering multiple particle size and shape. International Journal of Thermofluids, 2020, 7-8, 100021.	4.0	2
18	Investigations of lateral particle distribution for spherical and highly non-spherical particles by means of steady-state/transient RANS and LES simulations. Powder Technology, 2021, 378, 618-638.	2.1	2

#	Article	IF	Citations
19	Characterization and evaluation of a novel semi-industrial scale vertical shaft furnace for particle spheroidization. Journal of the Energy Institute, 2020, 93, 1110-1124.	2.7	1
20	Investigating the advantages of Laval blasting nozzles in combination with injector-type sandblasters using efficient numerical methods. Surface and Coatings Technology, 2022, 445, 128699.	2.2	1
21	CFD simulation aided glass quality and energy efficiency analysis of an oxy-fuel glass melting furnace with electric boosting. Energy Conversion and Management: X, 2022, 15, 100252.	0.9	0