

Chiara Galletti

List of Publications by Year in descending order

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65
papers

2,226
citations

185998

28
h-index

223531

46
g-index

70
all docs

70
docs citations

70
times ranked

1177
citing authors

#	ARTICLE	IF	CITATIONS
1	Numerical and experimental investigation of a mild combustion burner. <i>Combustion and Flame</i> , 2007, 151, 649-664.	2.8	173
2	Effect of the combustion model and kinetic mechanism on the MILD combustion in an industrial burner fed with hydrogen enriched fuels. <i>International Journal of Hydrogen Energy</i> , 2008, 33, 7553-7564.	3.8	164
3	Numerical and experimental analysis of NO emissions from a lab-scale burner fed with hydrogen-enriched fuels and operating in MILD combustion. <i>International Journal of Hydrogen Energy</i> , 2009, 34, 8339-8351.	3.8	129
4	Numerical Investigation of a MILD Combustion Burner: Analysis of Mixing Field, Chemical Kinetics and Turbulence-Chemistry Interaction. <i>Flow, Turbulence and Combustion</i> , 2012, 88, 597-623.	1.4	107
5	Steady and unsteady regimes in a T-shaped micro-mixer: Synergic experimental and numerical investigation. <i>Chemical Engineering Journal</i> , 2018, 341, 414-431.	6.6	93
6	Water-ethanol mixing in T-shaped microdevices. <i>Chemical Engineering Science</i> , 2013, 95, 174-183.	1.9	84
7	Effect of inlet conditions on the engulfment pattern in a T-shaped micro-mixer. <i>Chemical Engineering Journal</i> , 2012, 185-186, 300-313.	6.6	83
8	A numerical model for gas flow and droplet motion in wave-plate mist eliminators with drainage channels. <i>Chemical Engineering Science</i> , 2008, 63, 5639-5652.	1.9	81
9	A Novel Methodology for Chemical Time Scale Evaluation with Detailed Chemical Reaction Kinetics. <i>Energy & Fuels</i> , 2013, 27, 2255-2265.	2.5	77
10	Key modeling issues in prediction of minor species in diluted-preheated combustion conditions. <i>Applied Thermal Engineering</i> , 2011, 31, 3287-3300.	3.0	72
11	Flow regimes in T-shaped micro-mixers. <i>Computers and Chemical Engineering</i> , 2015, 76, 150-159.	2.0	69
12	Evaluation of global biomass devolatilization kinetics in a drop tube reactor with CFD aided experiments. <i>Fuel</i> , 2009, 88, 1818-1827.	3.4	59
13	Reynolds number and impeller diameter effects on instabilities in stirred vessels. <i>AIChE Journal</i> , 2004, 50, 2050-2063.	1.8	56
14	A simplified approach for predicting NO formation in MILD combustion of CH ₄ -H ₂ mixtures. <i>Proceedings of the Combustion Institute</i> , 2011, 33, 3343-3350.	2.4	54
15	On the main flow features and instabilities in an unbaffled vessel agitated with an eccentrically located impeller. <i>Chemical Engineering Science</i> , 2008, 63, 4494-4505.	1.9	47
16	Extended EDC local extinction model accounting finite-rate chemistry for MILD combustion. <i>Fuel</i> , 2016, 165, 123-133.	3.4	47
17	An Overview of Flow Features and Mixing in Micro T and Arrow Mixers. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 3669-3686.	1.8	46
18	Spectral and wavelet analysis of the flow pattern transition with impeller clearance variations in a stirred vessel. <i>Chemical Engineering Science</i> , 2003, 58, 3859-3875.	1.9	42

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19	Numerical Study of Split T-shaped Micromixers. <i>Chemical Engineering and Technology</i> , 2012, 35, 1291-1299.	0.9	42
20	Unsteady Flow Regimes in a T-Shaped Micromixer: Mixing and Characteristic Frequencies. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 13340-13356.	1.8	36
21	Experimental and numerical investigation of a micro-CHP flameless unit. <i>Applied Energy</i> , 2012, 89, 203-214.	5.1	34
22	Reduced NO formation models for CFD simulations of MILD combustion. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 4884-4897.	3.8	34
23	Unsteady mixing of binary liquid mixtures with composition-dependent viscosity. <i>Chemical Engineering Science</i> , 2017, 164, 333-343.	1.9	32
24	Numerical investigation of flow regimes in T-shaped micromixers: Benchmark between finite volume and spectral element methods. <i>Canadian Journal of Chemical Engineering</i> , 2019, 97, 528-541.	0.9	32
25	Numerical investigation of oxy-natural-gas combustion in a semi-industrial furnace: Validation of CFD sub-models. <i>Fuel</i> , 2013, 109, 445-460.	3.4	31
26	Unsteady flow regimes in arrow-shaped micro-mixers with different tilting angles. <i>Physics of Fluids</i> , 2021, 33, .	1.6	30
27	Steady flow regimes and mixing performance in arrow-shaped micro-mixers. <i>Physical Review Fluids</i> , 2019, 4, .	1.0	30
28	Mixing of binary fluids with composition-dependent viscosity in a T-shaped micro-device. <i>Chemical Engineering Science</i> , 2015, 123, 300-310.	1.9	29
29	The role of flow features and chemical kinetics on the reaction yield in a T-shaped micro-reactor. <i>Chemical Engineering Journal</i> , 2020, 396, 125223.	6.6	29
30	Observations on the significance of instabilities turbulence and intermittent motions on fluid mixing processes in stirred reactors. <i>Chemical Engineering Science</i> , 2005, 60, 2317-2331.	1.9	26
31	Effect of shaft eccentricity and impeller blade thickness on the vortices features in an unbaffled vessel. <i>Chemical Engineering Research and Design</i> , 2009, 87, 391-400.	2.7	25
32	Influence of modelling and scenario uncertainties on the numerical simulation of a semi-industrial flameless furnace. <i>Applied Thermal Engineering</i> , 2015, 76, 324-334.	3.0	23
33	CFD analysis of the influence of a perimeter wall on the natural gas dispersion from an LNG pool. <i>Chemical Engineering Research and Design</i> , 2021, 148, 751-764.	2.7	23
34	A Study of Reynolds Stresses, Triple Products and Turbulence States in a Radially Stirred Tank with 3-D Laser Anemometry. <i>Chemical Engineering Research and Design</i> , 2004, 82, 1214-1228.	2.7	22
35	Coupling of integral methods and CFD for modeling complex industrial accidents. <i>Journal of Loss Prevention in the Process Industries</i> , 2018, 53, 115-128.	1.7	22
36	Effect of stratification on the mixing and reaction yield in a T-shaped micro-mixer. <i>Physical Review Fluids</i> , 2021, 6, .	1.0	22

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37	Optimized design of obstacle sequences for microfluidic mixing in an inertial regime. <i>Lab on A Chip</i> , 2021, 21, 3910-3923.	3.1	21
38	An Impedance Probe for the Measurements of Flow Characteristics and Mixing Properties in Stirred Slurry Reactors. <i>Chemical Engineering Research and Design</i> , 2004, 82, 1250-1257.	2.7	17
39	Biomass furnace for externally fired gas turbine: Development and validation of the numerical model. <i>Applied Thermal Engineering</i> , 2016, 96, 372-384.	3.0	16
40	Numerical study of pressure build-up in vertical tanks for cryogenic flammables storage. <i>Applied Thermal Engineering</i> , 2019, 161, 114079.	3.0	16
41	Woodchip size effect on combustion temperatures and volatiles in a small-scale fixed bed biomass boiler. <i>Renewable Energy</i> , 2020, 151, 161-174.	4.3	16
42	Numerical analysis of flow field and particle motion in a dynamic cyclonic selector. <i>Advanced Powder Technology</i> , 2020, 31, 1264-1273.	2.0	16
43	Feeding H ₂ -admixtures to domestic condensing boilers: Numerical simulations of combustion and pollutant formation in multi-hole burners. <i>Applied Energy</i> , 2022, 309, 118379.	5.1	16
44	Investigation on steady regimes in a X-shaped micromixer fed with water and ethanol. <i>Chemical Engineering Science</i> , 2022, 248, 117254.	1.9	15
45	Combustion of wood-chips in a small-scale fixed-bed boiler: Validation of the numerical model through in-flame measurements. <i>Fuel</i> , 2018, 221, 128-137.	3.4	11
46	Measuring Volumetric Phase Fractions in a Gas-Solid-Liquid Stirred Tank Reactor Using an Impedance Probe. <i>Canadian Journal of Chemical Engineering</i> , 2002, 80, 1-7.	0.9	8
47	Flow regimes, mixing and reaction yield of a mixture in an X-microreactor. <i>Chemical Engineering Journal</i> , 2022, 437, 135113.	6.6	8
48	A Study on the Effect of Flow Unsteadiness on the Yield of a Chemical Reaction in a T Micro-Reactor. <i>Micromachines</i> , 2021, 12, 242.	1.4	7
49	Mixing Improvement in a T-Shaped Micro-Junction through Small Rectangular Cavities. <i>Micromachines</i> , 2022, 13, 159.	1.4	6
50	Analysis of Coal Combustion in Oxy-fuel Conditions through Pulsed Feeding Experiments in an Entrained Flow Reactor. <i>Energy & Fuels</i> , 2013, 27, 2732-2740.	2.5	5
51	CFD-aided benchmark assessment of coal devolatilization one-step models in oxy-coal combustion conditions. <i>Fuel Processing Technology</i> , 2016, 154, 27-36.	3.7	5
52	Coupled CFD and 1-D dynamic modeling for the analysis of industrial Regenerative Thermal Oxidizers. <i>Chemical Engineering and Processing: Process Intensification</i> , 2020, 157, 108117.	1.8	5
53	Mixing sensitivity to the inclination of the lateral walls in a T-mixer. <i>Chemical Engineering and Processing: Process Intensification</i> , 2022, 170, 108699.	1.8	5
54	Screening Tool to Evaluate the Levels of Local Anisotropy of Turbulence in Stirred Vessels. <i>Industrial & Engineering Chemistry Research</i> , 2005, 44, 5836-5844.	1.8	4

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55	Heat Release Rate Markers for the Adelaide Jet in Hot Coflow Flame. <i>Frontiers in Mechanical Engineering</i> , 2020, 6, .	0.8	4
56	Effects of flow unsteadiness and chemical kinetics on the reaction yield in a T-microreactor. <i>Chemical Engineering Research and Design</i> , 2022, 179, 1-15.	2.7	4
57	Modelling and experimental validation of H2S emissions in geothermal power plants. <i>Geothermics</i> , 2002, 31, 501-517.	1.5	3
58	Evaluation of Scenario Uncertainties in Entrained Flow Reactor Tests through CFD Modeling: Devolatilization. <i>Energy & Fuels</i> , 2016, 30, 7511-7523.	2.5	3
59	Impact of sub-grid scale models on resolving mixing and thermal shear layers in large eddy simulation of JHC flames. <i>Applied Thermal Engineering</i> , 2019, 149, 1244-1254.	3.0	3
60	Flow Instabilities Associated With Impeller Clearance Changes In Stirred Vessels. <i>Chemical Engineering Communications</i> , 2005, 192, 516-531.	1.5	2
61	Selection of appropriate constraints for dimension reduction in MILD combustion simulations via RCCE. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 4287-4295.	2.4	2
62	Flow Instabilities in Mechanically Agitated Stirred Vessels. , 2011, , .		1
63	Biomass early stage combustion in a small size boiler: experimental and numerical analysis. <i>Energy Procedia</i> , 2018, 148, 1159-1166.	1.8	1
64	Experimental and Numerical Analyses of Unsteady Flow Regimes and Mixing in a Micro T-Mixer. , 2018, , .		0
65	10.1063/5.0033765.3. , 2021, , .		0