

Gomez Barea, Alberto

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

72
papers

3,283
citations

33
h-index

56
g-index

73
ext. papers

3,729
ext. citations

7.9
avg, IF

5.63
L-index

#	Paper	IF	Citations
72	Facing the high share of variable renewable energy in the power system: Flexibility and stability requirements. <i>Applied Energy</i> , 2022 , 310, 118561	10.7	4
71	Data for the modelling of the future power system with a high share of variable renewable energy.. <i>Data in Brief</i> , 2022 , 42, 108095	1.2	
70	Change of existing circulating fluidized bed boilers to oxy-firing conditions for CO2 capture. <i>Applications in Energy and Combustion Science</i> , 2021 , 8, 100042	0.8	
69	Solar gasification of biomass in a dual fluidized bed. <i>Chemical Engineering Journal</i> , 2021 , 406, 126665	14.7	8
68	Analysis of fluidized bed gasification of biomass assisted by solar-heated particles. <i>Biomass Conversion and Biorefinery</i> , 2021 , 11, 143-158	2.3	7
67	Fluid dynamic analysis of dual fluidized bed gasifier for solar applications. <i>Powder Technology</i> , 2021 , 390, 482-495	5.2	1
66	Techno-economic and operational assessment of concentrated solar power plants with a dual supporting system. <i>Applied Energy</i> , 2021 , 302, 117600	10.7	7
65	The effect of H2O on the oxy-fuel combustion of a bituminous coal char particle in a fluidized bed: Experiment and modeling. <i>Combustion and Flame</i> , 2020 , 218, 42-56	5.3	15
64	Modeling the transient response of a fluidized-bed biomass gasifier. <i>Fuel</i> , 2020 , 274, 117226	7.1	4
63	Tar conversion of biomass syngas in a downstream char bed. <i>Fuel Processing Technology</i> , 2020 , 199, 106271	7.1	16
62	On the Measurement of the Main Inorganic Contaminants Derived from Cl, S and N in Simulated Waste-Derived Syngas. <i>Waste and Biomass Valorization</i> , 2020 , 11, 6869-6884	3.2	2
61	Elements partitioning during thermal conversion of sewage sludge. <i>Fuel Processing Technology</i> , 2019 , 186, 156-166	7.2	22
60	Tar yield and composition from poultry litter gasification in a fluidised bed reactor: effects of equivalence ratio, temperature and limestone addition.. <i>RSC Advances</i> , 2019 , 9, 13283-13296	3.7	9
59	Comparison of Six Different Biomass Residues in a Pilot-Scale Fluidized Bed Gasifier. <i>Energy & Fuels</i> , 2019 , 33, 10978-10988	4.1	5
58	The influence of volatiles to carrier gas ratio on gas and tar yields during fluidized bed pyrolysis tests. <i>Fuel</i> , 2018 , 226, 81-86	7.1	10
57	Implementation of waste-to-energy options in landfill-dominated countries: Economic evaluation and GHG impact. <i>Waste Management</i> , 2018 , 76, 443-456	8.6	33
56	The influence of the char internal structure and composition on heterogeneous conversion of naphthalene. <i>Fuel Processing Technology</i> , 2018 , 172, 125-132	7.2	16

55	Measurement and theoretical prediction of char temperature oscillation during fluidized bed combustion. <i>Combustion and Flame</i> , 2018 , 192, 190-204	5.3	16
54	The influence of CO ₂ gas concentration on the char temperature and conversion during oxy-fuel combustion in a fluidized bed. <i>Applied Energy</i> , 2018 , 215, 116-130	10.7	8
53	The effects of calcium and potassium on CO ₂ gasification of birch wood in a fluidized bed. <i>Fuel</i> , 2017 , 196, 398-407	7.1	25
52	Gasification of Olive Tree Pruning in Fluidized Bed: Experiments in a Laboratory-Scale Plant and Scale-up to Industrial Operation. <i>Energy & Fuels</i> , 2017 , 31, 542-554	4.1	10
51	The effect of using thermocouples on the char particle combustion in a fluidized bed reactor. <i>Fuel</i> , 2017 , 207, 615-624	7.1	15
50	Oxy-fuel conversion of sub-bituminous coal particles in fluidized bed and pulverized combustors. <i>Proceedings of the Combustion Institute</i> , 2017 , 36, 3331-3339	5.9	17
49	Effect of CO ₂ on oxy-fuel combustion of coal-char particles in a fluidized bed: Modeling and comparison with the conventional mode of combustion. <i>Applied Energy</i> , 2016 , 177, 247-259	10.7	37
48	Poultry Litter Gasification in a Fluidized Bed Reactor: Effects of Gasifying Agent and Limestone Addition. <i>Energy & Fuels</i> , 2016 , 30, 3085-3096	4.1	35
47	Oxy-fuel combustion of a single fuel particle in a fluidized bed: Char combustion characteristics, an experimental study. <i>Chemical Engineering Journal</i> , 2016 , 287, 649-656	14.7	55
46	Kinetic Modeling of Tar and Light Hydrocarbons during the Thermal Conversion of Biomass. <i>Energy & Fuels</i> , 2016 , 30, 377-385	4.1	14
45	Measurement of char surface temperature in a fluidized bed combustor using pyrometry with digital camera. <i>Chemical Engineering Journal</i> , 2016 , 288, 441-450	14.7	24
44	Devolatilization of a single fuel particle in a fluidized bed under oxy-combustion conditions. Part A: Experimental results. <i>Combustion and Flame</i> , 2015 , 162, 797-808	5.3	55
43	Devolatilization of a single fuel particle in a fluidized bed under oxy-combustion conditions. Part B: Modeling and comparison with measurements. <i>Combustion and Flame</i> , 2015 , 162, 809-818	5.3	38
42	Modeling biomass char gasification kinetics for improving prediction of carbon conversion in a fluidized bed gasifier. <i>Fuel</i> , 2014 , 132, 107-115	7.1	39
41	Gasification of wastes in a pilot fluidized bed gasifier. <i>Fuel Processing Technology</i> , 2014 , 121, 63-69	7.2	64
40	Gasification kinetics of char from olive tree pruning in fluidized bed. <i>Fuel</i> , 2014 , 125, 192-199	7.1	37
39	Ignition behavior of single coal particle in a fluidized bed under O ₂ /CO ₂ and O ₂ /N ₂ atmospheres: A combination of visual image and particle temperature. <i>Applied Energy</i> , 2014 , 115, 301-308	10.7	50
38	Oxy-fuel combustion in circulating fluidized bed boilers. <i>Applied Energy</i> , 2014 , 125, 308-318	10.7	65

37	The influence of temperature and steam on the yields of tar and light hydrocarbon compounds during devolatilization of dried sewage sludge in a fluidized bed. <i>Fuel</i> , 2013 , 108, 341-350	7.1	40
36	Estimation of gas composition and char conversion in a fluidized bed biomass gasifier. <i>Fuel</i> , 2013 , 107, 419-431	7.1	40
35	Generation and Secondary Conversion of Volatiles during Devolatilization of Dried Sewage Sludge in a Fluidized Bed. <i>Industrial & Engineering Chemistry Research</i> , 2013 , 52, 1234-1243	3.9	4
34	Decomposition kinetics of model tar compounds over chars with different internal structure to model hot tar removal in biomass gasification. <i>Chemical Engineering Journal</i> , 2013 , 228, 1223-1233	14.7	90
33	Techno-economic assessment of biomass-to-ethanol by indirect fluidized bed gasification: Impact of reforming technologies and comparison with entrained flow gasification. <i>Applied Energy</i> , 2013 , 109, 254-266	10.7	39
32	Optimization of char and tar conversion in fluidized bed biomass gasifiers. <i>Fuel</i> , 2013 , 103, 42-52	7.1	87
31	Gasification of char from dried sewage sludge in fluidized bed: Reaction rate in mixtures of CO ₂ and H ₂ O. <i>Fuel</i> , 2013 , 105, 764-768	7.1	40
30	Thermochemical biorefinery based on dimethyl ether as intermediate: Technoeconomic assessment. <i>Applied Energy</i> , 2013 , 102, 950-961	10.7	44
29	Improving the performance of fluidized bed biomass/waste gasifiers for distributed electricity: A new three-stage gasification system. <i>Applied Thermal Engineering</i> , 2013 , 50, 1453-1462	5.8	64
28	Modelling of fluidized bed gasification processes 2013 , 579-619		2
27	A model of biomass char gasification describing the change in catalytic activity of ash. <i>Chemical Engineering Journal</i> , 2012 , 207-208, 616-624	14.7	70
26	Analytical solutions of sharp interface models with nth order kinetics. Application to char conversion. <i>Chemical Engineering Journal</i> , 2012 , 183, 408-421	14.7	16
25	Gasification reactivity of char from dried sewage sludge in a fluidized bed. <i>Fuel</i> , 2012 , 92, 346-353	7.1	62
24	Gasification of biomass and waste in a staged fluidized bed gasifier: Modeling and comparison with one-stage units. <i>Fuel</i> , 2012 , 97, 730-740	7.1	57
23	Technoeconomic assessment of ethanol production via thermochemical conversion of biomass by entrained flow gasification. <i>Energy</i> , 2011 , 36, 4097-4108	7.9	59
22	Application of biomass gasification fly ash for brick manufacturing. <i>Fuel</i> , 2011 , 90, 220-232	7.1	74
21	Characterization and prediction of biomass pyrolysis products. <i>Progress in Energy and Combustion Science</i> , 2011 , 37, 611-630	33.6	475
20	Tar Reduction by Primary Measures in an Autothermal Air-Blown Fluidized Bed Biomass Gasifier. <i>Industrial & Engineering Chemistry Research</i> , 2010 , 49, 11294-11301	3.9	31

19	Gasification of Biomass and Waste 2010 , 365		2
18	Devolatilization of wood and wastes in fluidized bed. <i>Fuel Processing Technology</i> , 2010 , 91, 1624-1633	7.2	70
17	Modeling of biomass gasification in fluidized bed. <i>Progress in Energy and Combustion Science</i> , 2010 , 36, 444-509	33.6	564
16	Plant optimisation and ash recycling in fluidised bed waste gasification. <i>Chemical Engineering Journal</i> , 2009 , 146, 227-236	14.7	55
15	Air/steam gasification of biomass in a fluidised bed: Process optimisation by enriched air. <i>Fuel Processing Technology</i> , 2009 , 90, 677-685	7.2	144
14	Model Predictive Control of a Wet Limestone Flue Gas Desulfurization Pilot Plant. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 5399-5405	3.9	13
13	Catalytic seawater flue gas desulfurization model. <i>Environmental Science & Technology</i> , 2009 , 43, 9393-9	10.3	16
12	Gasification of Biomass in Fluidised Bed: Review of Modelling 2009 , 13-26		2
11	Air/steam Gasification of Biomass in a Fluidized Bed under Simulated Autothermal and Adiabatic Conditions. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 5957-5965	3.9	67
10	Gas/solid conversion in fluidised bed reactors. <i>Chemical Engineering Journal</i> , 2008 , 141, 151-168	14.7	17
9	Use of Biomass Gasification Fly Ash in Lightweight Plasterboard. <i>Energy & Fuels</i> , 2007 , 21, 361-367	4.1	27
8	Mass transport effects during measurements of gas/solid reaction kinetics in a fluidised bed. <i>Chemical Engineering Science</i> , 2007 , 62, 1477-1493	4.4	14
7	Reduction of Physical Effects during Reactivity Tests in Fluidized Bed. <i>Industrial & Engineering Chemistry Research</i> , 2006 , 45, 7344-7350	3.9	4
6	Diffusional Effects in CO ₂ Gasification Experiments with Single Biomass Char Particles. 2. Theoretical Predictions. <i>Energy & Fuels</i> , 2006 , 20, 2211-2222	4.1	37
5	Diffusional Effects in CO ₂ Gasification Experiments with Single Biomass Char Particles. 1. Experimental Investigation. <i>Energy & Fuels</i> , 2006 , 20, 2202-2210	4.1	85
4	An approximate method for solving gas/solid non-catalytic reactions. <i>Chemical Engineering Science</i> , 2006 , 61, 3725-3735	4.4	35
3	Pilot-Plant Gasification of Olive Stone: a Technical Assessment. <i>Energy & Fuels</i> , 2005 , 19, 598-605	4.1	58
2	Downstream evolution of unconfined vortices: mechanical and thermal aspects. <i>Journal of Fluid Mechanics</i> , 2002 , 471, 51-70	3.7	15

1	Distribution of Inorganics and Trace Elements during Waste Gasification in a Bench-Scale Fluidized Bed. <i>Energy & Fuels</i> ,	4.1	1
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