Antonio Soria

List of Publications by Year
in descending order

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60 papers	1,559 citations	304602 22 h-index	330025 37 g-index
60 all docs	60 docs citations	60 times ranked	1327 citing authors

#	Article	IF	Citations
1	Thermal design guidelines of solar power towers. Applied Thermal Engineering, 2014, 63, 428-438.	3.0	147
2	Analysis of biomass and sewage sludge devolatilization using the distributed activation energy model. Energy Conversion and Management, 2013, 65, 239-244.	4.4	80
3	Effect of the number of TGA curves employed on the biomass pyrolysis kinetics results obtained using the Distributed Activation Energy Model. Fuel Processing Technology, 2015, 134, 360-371.	3.7	74
4	Pyrolysis of biofuels of the future: Sewage sludge and microalgae â€“ Thermogravimetric analysis and modelling of the pyrolysis under different temperature conditions. Energy Conversion and Management, 2017, 138, 261-272.	4.4	69
5	Circulation of an object immersed in a bubbling fluidized bed. Chemical Engineering Science, 2011, 66, 78-87.	1.9	59
6	Analyzing the pyrolysis kinetics of several microalgae species by various differential and integral isoconversional kinetic methods and the Distributed Activation Energy Model. Algal Research, 2018, 32, 11-29.	2.4	57
7	Thermal behavior, thermodynamics and kinetics of co-pyrolysis of binary and ternary mixtures of biomass through thermogravimetric analysis. Fuel, 2020, 280, 118665.	3.4	53
8	Comparison of wood pyrolysis kinetic data derived from thermogravimetric experiments by model-fitting and model-free methods. Energy Conversion and Management, 2020, 212, 112818.	4.4	53
9	Energy and exergy analysis of an absorption power cycle. Applied Thermal Engineering, 2013, 55, 69-77.	3.0	51
10	Evaluating the accuracy of the Distributed Activation Energy Model for biomass devolatilization curves obtained at high heating rates. Energy Conversion and Management, 2014, 86, 1045-1049.	4.4	49
11	Experimental analysis and simulation of the performance of a box-type solar cooker. Energy for Sustainable Development, 2015, 29, 65-71.	2.0	47
12	Buoyancy effects on objects moving in a bubbling fluidized bed. Chemical Engineering Science, 2011, 66, 2833-2841.	1.9	46
13	Modeling the thin-layer drying process of Granny Smith apples: Application in an indirect solar dryer. Applied Thermal Engineering, 2016, 108, 1086-1094.	3.0	42
14	Pyrolysis of sewage sludge in a fixed and a bubbling fluidized bed â€“ Estimation and experimental validation of the pyrolysis time. Energy Conversion and Management, 2017, 144, 235-242.	4.4	39
15	Airport electric vehicle powered by fuel cell. Journal of Power Sources, 2007, 169, 184-193.	4.0	36
16	Agglomeration detection by pressure fluctuation analysis during Cynara cardunculus L. gasification in a fluidized bed. Chemical Engineering Journal, 2016, 284, 640-649.	6.6	35
17	Experimental study on the characteristic mixing time of solids and its link with the lateral dispersion coefficient in bubbling fluidized beds. Chemical Engineering Journal, 2017, 307, 113-121.	6.6	35
18	Motion of a large object in a bubbling fluidized bed with a rotating distributor. Chemical Engineering and Processing: Process Intensification, 2011, 50, 859-868.	1.8	28

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19	Estimation and experimental validation of the circulation time in a 2D gasâ€“solid fluidized beds. Powder Technology, 2013, 235, 669-676.	2.1	27
20	Fluidized bed with a rotating distributor operated under defluidization conditions. Chemical Engineering Journal, 2012, 195-196, 198-207.	6.6	25
21	Fully coupled TFM-DEM simulations to study the motion of fuel particles in a fluidized bed. Chemical Engineering Science, 2015, 134, 57-66.	1.9	25
22	Pollutant emissions released during sewage sludge combustion in a bubbling fluidized bed reactor. Waste Management, 2020, 105, 27-38.	3.7	24
23	Synthesis, characterization and absorbability of Crocus sativus petals hydrothermal carbonized hydrochar and activated hydrochar. Chemical Engineering and Processing: Process Intensification, 2021, 159, 108236.	1.8	24
24	Solid conduction effects and design criteria in moving bed heat exchangers. Applied Thermal Engineering, 2011, 31, 1200-1207.	3.0	21
25	The effect of temperature on the distributor design in bubbling fluidized beds. Powder Technology, 2014, 261, 176-184.	2.1	21
26	Kinetics mechanism of inert and oxidative torrefaction of biomass. Energy Conversion and Management, 2022, 267, 115892.	4.4	21
27	Modeling of the pyrolysis of biomass under parabolic and exponential temperature increases using the Distributed Activation Energy Model. Energy Conversion and Management, 2016, 118, 223-230.	4.4	20
28	Effect of bed material density on the performance of steam gasification of biomass in bubbling fluidized beds. Fuel, 2019, 257, 116118.	3.4	20
29	Pyrolysis and Combustion Kinetic Study and Complementary Study of Ash Fusibility Behavior of Sugarcane Bagasse, Sugarcane Straw, and Their Pelletsâ€”Case Study of Agro-Industrial Residues. Energy & Fuels, 2019, 33, 3227-3238.	2.5	19
30	Experimental study of bubble dynamics and flow transition recognition in a fluidized bed with wet particles. Chemical Engineering Science, 2020, 211, 115257.	1.9	19
31	Lateral solids meso-mixing in pseudo-2D fluidized beds by means of TFM simulations. Powder Technology, 2018, 334, 183-191.	2.1	18
32	Exergy recovery from solar heated particles to supercritical CO2. Applied Thermal Engineering, 2019, 146, 469-481.	3.0	18
33	Evaluation of heat transfer models at various fluidization velocities for biomass pyrolysis conducted in a bubbling fluidized bed. International Journal of Heat and Mass Transfer, 2020, 160, 120175.	2.5	18
34	Experimental quantification of the particleâ€“wall frictional forces in pseudo-2D gas fluidised beds. Chemical Engineering Science, 2013, 102, 257-267.	1.9	17
35	The role of fuel mixing on char conversion in a fluidized bed. Powder Technology, 2017, 316, 677-686.	2.1	17
36	Combining the lumped capacitance method and the simplified distributed activation energy model to describe the pyrolysis of thermally small biomass particles. Energy Conversion and Management, 2018, 175, 164-172.	4.4	17

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37	Pyrolysis of Cynara cardunculus L. samples â€“ Effect of operating conditions and bed stage on the evolution of the conversion. Chemical Engineering Journal, 2018, 351, 371-381.	6.6	17
38	Numerical study of the effect of pressure and temperature on the fluidization of solids with air and (supercritical) CO2. Journal of Supercritical Fluids, 2019, 147, 271-283.	1.6	17
39	Optimization of the feeding ports location in a fluidized bed combustor based on Monte Carlo simulations of fuel particles motion. Fuel, 2015, 141, 82-92.	3.4	16
40	Simulation of object motion in a bubbling fluidized bed using a Monte Carlo method. Chemical Engineering Science, 2013, 96, 26-32.	1.9	14
41	Experimental evaluation of the convection heat transfer coefficient of large particles moving freely in a fluidized bed reactor. International Journal of Heat and Mass Transfer, 2020, 153, 119612.	2.5	14
42	Simulation and experimental study on the motion of non-reacting objects in the freeboard of a fluidized bed. Powder Technology, 2014, 263, 112-120.	2.1	13
43	Microalgae pyrolysis under isothermal and non-isothermal conditions. Algal Research, 2020, 51, 102031.	2.4	12
44	Improvement of the simulation of fuel particles motion in a fluidized bed by considering wall friction. Chemical Engineering Journal, 2017, 321, 175-183.	6.6	11
45	Modeling the motion of fuel particles in a fluidized bed. Fuel, 2021, 305, 121424.	3.4	11
46	On the characteristic heating and pyrolysis time of thermally small biomass particles in a bubbling fluidized bed reactor. Renewable Energy, 2020, 160, 312-322.	4.3	9
47	Maldistribution detection in bubbling fluidized beds. Chemical Engineering Journal, 2015, 270, 272-281.	6.6	8
48	Exergy Optimization in a Steady Moving Bed Heat Exchanger. Annals of the New York Academy of Sciences, 2009, 1161, 584-600.	1.8	7
49	Evaluation of the number of first-order reactions required to accurately model biomass pyrolysis. Chemical Engineering Journal, 2021, 408, 127291.	6.6	7
50	Evaluation of the Maximum Evaporation Rate in Small-Scale Indirect Solar Dryers. Journal of Solar Energy Engineering, Transactions of the ASME, 2016, 138, .	1.1	6
51	The influence of the elemental and structural chemical composition on the ash fusibility of sugarcane bagasse and sugarcane straw. Fuel, 2021, 304, 121404.	3.4	5
52	Insights into the coâ€“pyrolysis of olive stone, waste polyvinyl chloride and Spirulina microalgae blends through thermogravimetric analysis. Algal Research, 2022, 62, 102635.	2.4	5
53	Stagnant regions estimation in fluidized beds from bed surface observation. Chemical Engineering Journal, 2015, 281, 109-118.	6.6	4
54	Multiresolution Analysis of a Drying Process in a Rotating-Distributor Fluidized Bed. Drying Technology, 2016, 34, 119-131.	1.7	4

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55	Pyrolysis of sludge and biomass residues. , 2020, , 155-181.		3
56	Moving bed syngas conditioning: Modelling. Applied Thermal Engineering, 2014, 62, 809-822.	3.0	2
57	Numerical and Experimental Evaluation and Heat Transfer Characteristics of a Soft Magnetic Transformer Built from Laminated Steel Plates. Sensors, 2021, 21, 7939.	2.1	2
58	Design of Novel Cooling Systems Based on Metal Plates with Channels of Shapes Inspired by Nature. Applied Sciences (Switzerland), 2022, 12, 3350.	1.3	1
59	Modelling and Design of Indirect Solar Dryers for Batch Drying. Renewable Energy and Power Quality Journal, 0, , 1093-1098.	0.2	0
60	BLIND PEER REVIEW OF ACADEMIC RESEARCH PROJECTS OF RENEWABLE ENERGIES BY STUDENTS. , 2020, , .		0