

David Patiño

List of Publications by Year in descending order

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Version: 2024-02-01

54
papers

1,732
citations

279798

23
h-index

289244

40
g-index

54
all docs

54
docs citations

54
times ranked

1242
citing authors

#	ARTICLE	IF	CITATIONS
1	Performance analysis of a small-scale electrostatic precipitator with biomass combustion. Biomass and Bioenergy, 2022, 162, 106500.	5.7	8
2	TG/DSC and kinetic parametrization of the combustion of agricultural and forestry residues. Biomass and Bioenergy, 2022, 162, 106485.	5.7	4
3	Multi-objective utilization of wood waste recycled from construction and demolition (C&D): Products and characterization. Waste Management, 2022, 149, 228-238.	7.4	8
4	Validation of a Fouling Measurement Procedure. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-8.	4.7	3
5	Review of the use of additives to mitigate operational problems associated with the combustion of biomass with high content in ash-forming species. Renewable and Sustainable Energy Reviews, 2021, 141, 110502.	16.4	71
6	Biological systems for CCS: Patent review as a criterion for technological development. Applied Energy, 2020, 257, 114032.	10.1	12
7	Three-dimensional CFD simulation of a large-scale grate-fired biomass furnace. Fuel Processing Technology, 2020, 198, 106219.	7.2	39
8	Novel Test Bench for the Active Reduction of Biomass Particulate Matter Emissions. Sustainability, 2020, 12, 422.	3.2	12
9	PM reduction and flame confinement in biomass combustion using a porous inert material. Fuel, 2020, 280, 118496.	6.4	6
10	Influence of the Feeding Rate on the Transient Behavior of a Biomass Combustor. Chemical Engineering and Technology, 2019, 42, 2520-2529.	1.5	8
11	Viability Evaluation of Three Grass Biofuels: Experimental Study in a Small-Scale Combustor. Energies, 2019, 12, 1352.	3.1	8
12	CFD study of fouling phenomena in small-scale biomass boilers: Experimental validation with two different boilers. Renewable Energy, 2019, 140, 552-562.	8.9	16
13	Evolution of CO2 capture technology between 2007 and 2017 through the study of patent activity. Applied Energy, 2018, 211, 1282-1296.	10.1	95
14	Comprehensive CFD modeling of the ash deposition in a biomass packed bed burner. Fuel, 2018, 234, 1099-1122.	6.4	25
15	Methodologies for Processing Fixed Bed Combustor Data. Combustion Science and Technology, 2017, 189, 79-102.	2.3	9
16	Dynamic simulation of a biomass domestic boiler under thermally thick considerations. Energy Conversion and Management, 2017, 140, 260-272.	9.2	27
17	A practice for engineering students based on the control and monitoring an experimental biomass combustor using labview. Computer Applications in Engineering Education, 2017, 25, 392-403.	3.4	11
18	Air staging strategies in biomass combustion-gaseous and particulate emission reduction potentials. Fuel Processing Technology, 2017, 157, 29-41.	7.2	50

#	ARTICLE	IF	CITATIONS
19	Experimental study on the fouling behaviour of an underfeed fixed-bed biomass combustor. Applied Thermal Engineering, 2017, 112, 523-533.	6.0	22
20	An experimental study into the effect of air staging distribution and position on emissions in a laboratory scale biomass combustor. Energy, 2017, 118, 1243-1255.	8.8	28
21	Experimental Study of the Viability of Low-Grade Biofuels in Small-Scale Appliances. Sustainability, 2017, 9, 1823.	3.2	11
22	Effect of Air Staging Ratios on the Burning Rate and Emissions in an Underfeed Fixed-Bed Biomass Combustor. Energies, 2016, 9, 940.	3.1	22
23	Performance of a lab-scale tubular-type electrostatic precipitator using a diesel engine particle emission source. Energy, 2016, 116, 1444-1453.	8.8	10
24	Effect of freeboard deflectors in the fixed bed combustion of biomass. Applied Thermal Engineering, 2016, 103, 543-552.	6.0	27
25	Experimental study of a tubular-type ESP for small-scale biomass boilers. Preliminary results in a diesel engine. Powder Technology, 2016, 288, 164-175.	4.2	19
26	Three-dimensional model of electrostatic precipitators for the estimation of their particle collection efficiency. Fuel Processing Technology, 2016, 143, 86-99.	7.2	16
27	Experimental analysis of fouling rates in two small-scale domestic boilers. Applied Thermal Engineering, 2016, 100, 849-860.	6.0	26
28	Numerical simulation of the combustion process of a pellet-drop-feed boiler. Fuel, 2016, 184, 987-999.	6.4	54
29	A Comparative Study of Fouling and Bottom Ash from Woody Biomass Combustion in a Fixed-Bed Small-Scale Boiler and Evaluation of the Analytical Techniques Used. Sustainability, 2015, 7, 5819-5837.	3.2	26
30	Eulerian CFD modelling for biomass combustion. Transient simulation of an underfeed pellet boiler. Energy Conversion and Management, 2015, 101, 666-680.	9.2	51
31	Low-Quality Fuels for Small-Scale Combustion Boilers: An Experimental Study. Energy & Fuels, 2015, 29, 3064-3081.	5.1	20
32	Fast-solving thermally thick model of biomass particles embedded in a CFD code for the simulation of fixed-bed burners. Energy Conversion and Management, 2015, 105, 30-44.	9.2	54
33	Characterisation and comparison of biomass ashes with different thermal histories using TG-DSC. Journal of Thermal Analysis and Calorimetry, 2014, 118, 669-680.	3.6	36
34	CFD modelling of thermal conversion and packed bed compaction in biomass combustion. Fuel, 2014, 117, 716-732.	6.4	118
35	Devolatilization behaviour and pyrolysis kinetic modelling of Spanish biomass fuels. Journal of Thermal Analysis and Calorimetry, 2013, 113, 569-578.	3.6	18
36	CFD simulation of a solar radiation absorber. International Journal of Heat and Mass Transfer, 2013, 57, 231-240.	4.8	55

#	ARTICLE	IF	CITATIONS
37	Experimental analysis of several biomass fuels: The effect of the devolatilization rate on packed bed combustion. <i>Journal of Renewable and Sustainable Energy</i> , 2012, 4, 053104.	2.0	1
38	Numerical modeling of the combustion of densified wood under fixed-bed conditions. <i>Fuel</i> , 2012, 93, 149-159.	6.4	108
39	Study of the reaction front thickness in a counter-current fixed-bed combustor of a pelletised biomass. <i>Combustion and Flame</i> , 2012, 159, 1296-1302.	5.2	51
40	Diesel engine condition monitoring using a multi-net neural network system with nonintrusive sensors. <i>Applied Thermal Engineering</i> , 2011, 31, 4097-4105.	6.0	49
41	NSM solution for unsteady MHD Couette flow of a dusty conducting fluid with variable viscosity and electric conductivity. <i>Applied Mathematical Modelling</i> , 2011, 35, 303-316.	4.2	15
42	The motion of discs and spherical fuel particles in combustion burners based on Monte Carlo simulation. <i>Energy Conversion and Management</i> , 2010, 51, 795-801.	9.2	1
43	Network numerical modelling of unsteady MHD free convection flow with mass transfer, hall current and viscous dissipation effects. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2010, 26, 1687-1699.	2.1	0
44	Experimental analysis of the ignition front propagation of several biomass fuels in a fixed-bed combustor. <i>Fuel</i> , 2010, 89, 26-35.	6.4	157
45	Heterogenic Solid Biofuel Sampling Methodology and Uncertainty Associated with Prompt Analysis. <i>International Journal of Molecular Sciences</i> , 2010, 11, 2118-2133.	4.1	14
46	Study of a Fixed-Bed Biomass Combustor: Influential Parameters on Ignition Front Propagation Using Parametric Analysis. <i>Energy & Fuels</i> , 2010, 24, 3890-3897.	5.1	57
47	Unsteady MHD free convection of a micropolar fluid between two parallel porous vertical walls with convection from the ambient. <i>International Communications in Heat and Mass Transfer</i> , 2009, 36, 203-209.	5.6	14
48	Simulation and experimental validation of a methanol burner. <i>Fuel</i> , 2009, 88, 326-334.	6.4	28
49	Available exhaust gas power in different configurations in a pellet stove plant. <i>Renewable Energy</i> , 2009, 34, 2852-2859.	8.9	5
50	Study of the feasibility of mixing Refuse Derived Fuels with wood pellets through the grey and Fuzzy theory. <i>Renewable Energy</i> , 2009, 34, 2607-2612.	8.9	22
51	Numerical Modeling of a Biomass Pellet Domestic Boiler. <i>Energy & Fuels</i> , 2009, 23, 1067-1075.	5.1	93
52	Improving the Cofiring Process of Wood Pellet and Refuse Derived Fuel in a Small-Scale Boiler Plant. <i>Energy & Fuels</i> , 2008, 22, 2121-2128.	5.1	23
53	A Model for the Combustion of Large Particles of Densified Wood. <i>Energy & Fuels</i> , 2007, 21, 3151-3159.	5.1	68
54	STUDY OF THE COMBUSTION OF PELLETS AND RDF IN A SMALL BOILER-STOVE PLANT. <i>Clean Air</i> , 2007, 8, 183-197.	0.0	1