

# Javier Ballester

## List of Publications by Year in descending order

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Version: 2024-02-01

65  
papers

2,196  
citations

186265

28  
h-index

233421

45  
g-index

67  
all docs

67  
docs citations

67  
times ranked

1758  
citing authors

#	ARTICLE	IF	CITATIONS
1	Diagnostic techniques for the monitoring and control of practical flames. Progress in Energy and Combustion Science, 2010, 36, 375-411.	31.2	288
2	Modelling the Temporal Evolution of a Reduced Combustion Chemical System With an Artificial Neural Network. Combustion and Flame, 1998, 113, 38-52.	5.2	124
3	Combustion characteristics of heavy oil-water emulsions. Fuel, 1996, 75, 695-705.	6.4	107
4	Influence of operating conditions and the role of sulfur in the formation of aerosols from biomass combustion. Combustion and Flame, 2005, 140, 346-358.	5.2	105
5	Analysis and sizing of thermal energy storage in combined heating, cooling and power plants for buildings. Applied Energy, 2013, 106, 127-142.	10.1	83
6	Flame imaging as a diagnostic tool for industrial combustion. Combustion and Flame, 2008, 155, 509-528.	5.2	69
7	Kinetic parameters for the oxidation of pulverised coal as measured from drop tube tests. Combustion and Flame, 2005, 142, 210-222.	5.2	65
8	Formation of alkali sulphate aerosols in biomass combustion. Fuel, 2007, 86, 486-493.	6.4	64
9	Study of coal ash deposition in an entrained flow reactor: Influence of coal type, blend composition and operating conditions. Fuel Processing Technology, 2006, 87, 737-752.	7.2	61
10	Effect of co-firing on the properties of submicron aerosols from biomass combustion. Proceedings of the Combustion Institute, 2005, 30, 2965-2972.	3.9	56
11	Chemiluminescence monitoring in premixed flames of natural gas and its blends with hydrogen. Proceedings of the Combustion Institute, 2009, 32, 2983-2991.	3.9	56
12	Kinetics of CO <sub>2</sub> gasification for coals of different ranks under oxy-combustion conditions. Combustion and Flame, 2013, 160, 411-416.	5.2	53
13	Gasification of a pulverized sub-bituminous coal in CO <sub>2</sub> at atmospheric pressure in an entrained flow reactor. Combustion and Flame, 2012, 159, 385-395.	5.2	52
14	Operational issues in premixed combustion of hydrogen-enriched and syngas fuels. International Journal of Hydrogen Energy, 2015, 40, 1229-1243.	7.1	52
15	Study of coal ash deposition in an entrained flow reactor: Assessment of traditional and alternative slagging indices. Fuel Processing Technology, 2007, 88, 865-876.	7.2	45
16	Formation and Emission of Submicron Particles in Pulverized Olive Residue (Orujillo) Combustion. Aerosol Science and Technology, 2004, 38, 707-723.	3.1	43
17	A novel method for the design of CHCP (combined heat, cooling and power) systems for buildings. Energy, 2010, 35, 2972-2984.	8.8	43
18	PARTICULATE MATTER FORMATION AND EMISSION IN THE COMBUSTION OF DIFFERENT PULVERIZED BIOMASS FUELS. Combustion Science and Technology, 2006, 178, 655-683.	2.3	42

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19	Kinetics of devolatilization and oxidation of a pulverized biomass in an entrained flow reactor under realistic combustion conditions. <i>Combustion and Flame</i> , 2008, 152, 588-603.	5.2	39
20	Production and droplet combustion characteristics of waste tire pyrolysis oil. <i>Fuel Processing Technology</i> , 2019, 196, 106149.	7.2	37
21	Chemiluminescence-based sensing of flame stoichiometry: Influence of the measurement method. <i>Measurement: Journal of the International Measurement Confederation</i> , 2013, 46, 3084-3097.	5.0	36
22	DISCHARGE COEFFICIENT AND SPRAY ANGLE MEASUREMENTS FOR SMALL PRESSURE-SWIRL NOZZLES. <i>Atomization and Sprays</i> , 1994, 4, 351-367.	0.8	36
23	Advanced diagnostics of industrial pulverized coal burner using optical methods and artificial intelligence. <i>Experimental Thermal and Fluid Science</i> , 2012, 43, 82-89.	2.7	34
24	A Comparative Study of Different Methods for the Sampling of High Temperature Combustion Aerosols. <i>Aerosol Science and Technology</i> , 2005, 39, 811-821.	3.1	32
25	Flame chemiluminescence in premixed combustion of hydrogen-enriched fuels. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 11299-11307.	7.1	32
26	Behavior of a high-capacity steam boiler using heavy fuel oil. <i>Fuel Processing Technology</i> , 2004, 86, 89-105.	7.2	30
27	Advanced monitoring of industrial burners based on fluctuating flame signals. <i>Fuel</i> , 2008, 87, 1063-1075.	6.4	29
28	Influence of fuel composition on chemiluminescence emission in premixed flames of CH <sub>4</sub> /CO <sub>2</sub> /H <sub>2</sub> /CO blends. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 20255-20265.	7.1	29
29	Comparative study of semi-industrial-scale flames of pulverized coals and biomass. <i>Combustion and Flame</i> , 2005, 141, 204-215.	5.2	28
30	Effect of local flame properties on chemiluminescence-based stoichiometry measurement. <i>Experimental Thermal and Fluid Science</i> , 2014, 53, 93-103.	2.7	27
31	Investigation of low-NO <sub>x</sub> strategies for natural gas combustion. <i>Fuel</i> , 1997, 76, 435-446.	6.4	26
32	Vaporization of Trace Elements and Their Emission with Submicrometer Aerosols in Biomass Combustion. <i>Energy &amp; Fuels</i> , 2008, 22, 2270-2277.	5.1	22
33	Experimental investigation of the combustion of crude glycerol droplets. <i>Fuel</i> , 2016, 184, 889-895.	6.4	22
34	Droplet combustion and sooting characteristics of UCO biodiesel, heating oil and their mixtures under realistic conditions. <i>Combustion and Flame</i> , 2019, 203, 190-203.	5.2	22
35	Experimental Study of the Influence of Atomization Characteristics on the Combustion of Heavy Oil. <i>Combustion Science and Technology</i> , 1994, 103, 235-263.	2.3	21
36	Investigation of the characteristics and stability of air-staged flames. <i>Experimental Thermal and Fluid Science</i> , 2008, 32, 776-790.	2.7	21

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37	Experimental evaluation and detailed characterisation of biomass reburning. <i>Biomass and Bioenergy</i> , 2008, 32, 959-970.	5.7	20
38	Comparative study of four alternative models for CO oxidation around a burning coal char particle. <i>Combustion and Flame</i> , 2014, 161, 1085-1095.	5.2	18
39	Low-cost thermal air flow sensor. <i>IEEE Sensors Journal</i> , 2002, 2, 453-462.	4.7	16
40	Some considerations about bioethanol combustion in oil-fired boilers. <i>Fuel Processing Technology</i> , 2010, 91, 1537-1550.	7.2	16
41	Analysis of the dynamic response of premixed flames through chemiluminescence cross-correlation maps. <i>Combustion and Flame</i> , 2018, 194, 296-308.	5.2	16
42	Devolatilization of millimeter-sized biomass particles at high temperatures and heating rates. Part 1: Experimental methods and results. <i>Fuel</i> , 2018, 234, 757-769.	6.4	15
43	Devolatilization of millimeter-sized biomass particles at high temperatures and heating rates. Part 2: Modeling and validation for thermally-thin and -thick regimes. <i>Fuel</i> , 2018, 234, 707-722.	6.4	15
44	Study of the evolution of particle size distributions and its effects on the oxidation of pulverized coal. <i>Combustion and Flame</i> , 2007, 151, 482-494.	5.2	14
45	DROP SIZE MEASUREMENTS IN HEAVY OIL SPRAYS FROM PRESSURE-SWIRL NOZZLES. <i>Atomization and Sprays</i> , 1996, 6, 377-408.	0.8	14
46	Experimental study on a non-dilute two-phase coflowing jet: Dynamics of particles in the near flow field. <i>International Journal of Multiphase Flow</i> , 2009, 35, 468-483.	3.4	13
47	Properties and Combustion Characteristics of Bio-Oils from Catalytic Co-Pyrolysis of Grape Seeds, Polystyrene, and Waste Tires. <i>Energy &amp; Fuels</i> , 2020, 34, 14190-14203.	5.1	13
48	Experimental study of the kinetics of sulfation of alkali chloride deposits. <i>Fuel Processing Technology</i> , 2015, 140, 215-221.	7.2	11
49	Impact of fuel staging on stability and pollutant emissions of premixed syngas flames. <i>Fuel</i> , 2016, 185, 122-132.	6.4	11
50	A numerical scheme for the thermodynamic analysis of gas turbines. <i>Applied Thermal Engineering</i> , 2019, 147, 521-536.	6.0	11
51	Life cycle assessment of production of black locust logs and straw pellets for energy purposes. <i>Environmental Progress and Sustainable Energy</i> , 2019, 38, 163-170.	2.3	9
52	Pyrolysis effects during high-temperature vaporization of alkane droplets. <i>Combustion and Flame</i> , 2020, 217, 38-47.	5.2	9
53	Evaluation of methane emissions from polyethylene gas distribution systems at medium pressure. <i>Journal of Natural Gas Science and Engineering</i> , 2009, 1, 144-153.	4.4	8
54	CO emissions and temperature analysis from an experimental and numerical study of partially premixed methane flames impinging onto a cooking pot. <i>Journal of Natural Gas Science and Engineering</i> , 2021, 88, 103771.	4.4	8

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55	Detailed Measurements in Heavy Oil and Oil/Water Emulsion Flames. Combustion Science and Technology, 1995, 106, 383-391.	2.3	7
56	Alternative Method for the Formulation of Surrogate Liquid Fuels Based on Evaporative and Sooting Behaviors. Energy & Fuels, 2019, 33, 5719-5731.	5.1	5
57	Use of a Berner Low-Pressure Impactor at Low Inlet Pressures. Application to the Study of Aerosols and Vapors at High Temperature. Aerosol Science and Technology, 2011, 45, 861-871.	3.1	4
58	Size distribution and concentration of soot generated in oil and gas-fired residential boilers under different combustion conditions. Atmospheric Environment, 2016, 133, 60-67.	4.1	3
59	Combustion Behavior of Jet A Droplets and its Blends With Butanol. , 2017, , .		3
60	Damping of Combustion Instabilities Through Pseudo-Active Control. , 2018, , .		2
61	Combustion Characteristics of Isolated Free-Falling Droplets of Jet A Blended With Ethanol and Butanol. , 2018, , .		1
62	Analysis of the Dynamics of Premixed Methane and Biogas Flames Based on Cross-correlation Maps. Combustion Science and Technology, 2021, 193, 485-510.	2.3	1
63	Image-Based Techniques for the Monitoring of Flames. , 2010, , .		1
64	Analysis of a Pseudo-active Approach for the Control of Thermoacoustic Instabilities. Combustion Science and Technology, 2020, , 1-28.	2.3	0
65	Determination of the Kinetic Parameters of a Pulverized Fuel from Drop Tube Experiments. Mathematics in Industry, 2008, , 296-300.	0.3	0