Javier Fermoso

List of Publications by Year
in descending order

49 papers	3,910 citations	136885 32 h-index	233338 45 g-index
49 all docs	49 docs citations	49 times ranked	4101 citing authors

#	Article	IF	Citations
1	Influence of torrefaction on the grindability and reactivity of woody biomass. Fuel Processing Technology, 2008, 89, 169-175.	3.7	634
2	Surface modification of activated carbons for CO2 capture. Applied Surface Science, 2008, 254, 7165-7172.	3.1	417
3	Development of low-cost biomass-based adsorbents for postcombustion CO2 capture. Fuel, 2009, 88, 2442-2447.	3.4	187
4	Developing almond shell-derived activated carbons as CO2 adsorbents. Separation and Purification Technology, 2010, 71, 102-106.	3.9	185
5	High-pressure co-gasification of coal with biomass and petroleum coke. Fuel Processing Technology, 2009, 90, 926-932.	3.7	173
6	Application of thermogravimetric analysis to the evaluation of aminated solid sorbents for CO2 capture. Journal of Thermal Analysis and Calorimetry, 2008, 92, 601-606.	2.0	143
7	Co-gasification of different rank coals with biomass and petroleum coke in a high-pressure reactor for H2-rich gas production. Bioresource Technology, 2010, 101, 3230-3235.	4.8	131
8	Different Approaches for the Development of Low-Cost CO2 Adsorbents. Journal of Environmental Engineering, ASCE, 2009, 135, 426-432.	0.7	125
9	Kinetic models comparison for steam gasification of different nature fuel chars. Journal of Thermal Analysis and Calorimetry, 2008, 91, 779-786.	2.0	117
10	Lamellar and pillared ZSM-5 zeolites modified with MgO and ZnO for catalytic fast-pyrolysis of eucalyptus woodchips. Catalysis Today, 2016, 277, 171-181.	2.2	116
11	High-pressure gasification reactivity of biomass chars produced at different temperatures. Journal of Analytical and Applied Pyrolysis, 2009, 85, 287-293.	2.6	108
12	Kinetic models comparison for non-isothermal steam gasification of coalâ€“biomass blend chars. Chemical Engineering Journal, 2010, 161, 276-284.	6.6	108
13	Engineering the acidity and accessibility of the zeolite ZSM-5 for efficient bio-oil upgrading in catalytic pyrolysis of lignocellulose. Green Chemistry, 2018, 20, 3499-3511.	4.6	101
14	Production of high purity hydrogen by sorption enhanced steam reforming of crude glycerol. International Journal of Hydrogen Energy, 2012, 37, 14047-14054.	3.8	84
15	Assessing biomass catalytic pyrolysis in terms of deoxygenation pathways and energy yields for the efficient production of advanced biofuels. Catalysis Science and Technology, 2016, 6, 2829-2843.	2.1	82
16	Production of fuel-cell grade H2 by sorption enhanced steam reforming of acetic acid as a model compound of biomass-derived bio-oil. Applied Catalysis B: Environmental, 2016, 184, 64-76.	10.8	81
17	Sorption enhanced catalytic steam gasification process: a direct route from lignocellulosic biomass to high purity hydrogen. Energy and Environmental Science, 2012, 5, 6358.	15.6	77
18	Application of response surface methodology to assess the combined effect of operating variables on high-pressure coal gasification for H2-rich gas production. International Journal of Hydrogen Energy, 2010, 35, 1191-1204.	3.8	72

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19	Advanced biofuels production by upgrading of pyrolysis bioâ€oil. Wiley Interdisciplinary Reviews: Energy and Environment, 2017, 6, e245.	1.9	70
20	Biomass catalytic fast pyrolysis over hierarchical ZSM-5 and Beta zeolites modified with Mg and Zn oxides. Biomass Conversion and Biorefinery, 2017, 7, 289-304.	2.9	67
21	A comparison of two methods for producing CO2 capture adsorbents. Energy Procedia, 2009, 1, 1107-1113.	1.8	65
22	Valorization of steam-exploded wheat straw through a biorefinery approach: Bioethanol and bio-oil co-production. Fuel, 2017, 199, 403-412.	3.4	58
23	Thermochemical decomposition of coffee ground residues by TG-MS: A kinetic study. Journal of Analytical and Applied Pyrolysis, 2018, 130, 358-367.	2.6	53
24	Synergistic effects during the co-pyrolysis and co-gasification of high volatile bituminous coal with microalgae. Energy Conversion and Management, 2018, 164, 399-409.	4.4	50
25	Bio-oil production by lignocellulose fast-pyrolysis: Isolating and comparing the effects of indigenous versus external catalysts. Fuel Processing Technology, 2017, 167, 563-574.	3.7	48
26	Ceria on alumina support for catalytic pyrolysis of Pavlova sp. microalgae to high-quality bio-oils. Journal of Energy Chemistry, 2018, 27, 874-882.	7.1	48
27	H2 production by sorption enhanced steam reforming of biomass-derived bio-oil in a fluidized bed reactor: An assessment of the effect of operation variables using response surface methodology. Catalysis Today, 2015, 242, 19-34.	2.2	44
28	Multifunctional Pd/Niâ€“Co Catalyst for Hydrogen Production by Chemical Looping Coupled With Steam Reforming of Acetic Acid. ChemSusChem, 2014, 7, 3063-3077.	3.6	42
29	Effect of Li-LSX-zeolite on the in-situ catalytic deoxygenation and denitrogenation of Isochrysis sp. microalgae pyrolysis vapours. Fuel Processing Technology, 2018, 173, 253-261.	3.7	40
30	Li-LSX-zeolite evaluation for post-combustion CO2 capture. Chemical Engineering Journal, 2019, 358, 1351-1362.	6.6	36
31	The crucial role of clay binders in the performance of ZSM-5 based materials for biomass catalytic pyrolysis. Catalysis Science and Technology, 2019, 9, 789-802.	2.1	35
32	ZSM-5 zeolites performance assessment in catalytic pyrolysis of PVC-containing real WEEE plastic wastes. Catalysis Today, 2022, 390-391, 210-220.	2.2	34
33	Gasification of the char derived from distillation of granulated scrap tyres. Waste Management, 2012, 32, 743-752.	3.7	32
34	Performance of MCM-22 zeolite for the catalytic fast-pyrolysis of acid-washed wheat straw. Catalysis Today, 2018, 304, 30-38.	2.2	32
35	Intrinsic char reactivity of plastic waste (PET) during CO2 gasification. Fuel Processing Technology, 2010, 91, 1776-1781.	3.7	29
36	Effect of the Pressure and Temperature of Devolatilization on the Morphology and Steam Gasification Reactivity of Coal Chars. Energy & Fuels, 2010, 24, 5586-5595.	2.5	29

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37	Thermochemical valorization of camelina straw waste via fast pyrolysis. Biomass Conversion and Biorefinery, 2017, 7, 277-287.	2.9	27
38	Thermogravimetric characterisation and kinetic analysis of Nannochloropsis sp. and Tetraselmis sp. microalgae for pyrolysis, combustion and oxy-combustion. Energy, 2021, 217, 119394.	4.5	21
39	Kinetic Parameters and Reactivity for the Steam Gasification of Coal Chars Obtained under Different Pyrolysis Temperatures and Pressures. Energy & Fuels, 2011, 25, 3574-3580.	2.5	20
40	Scalingâ€Up of Bioâ€Oil Upgrading during Biomass Pyrolysis over ZrO₂/ZSMâ€5â€Attapulgite. ChemSusChem, 2019, 12, 2428-2438.	3.6	17
41	Sorption enhanced steam reforming (SESR): a direct route towards efficient hydrogen production from biomassâ€derived compounds. Journal of Chemical Technology and Biotechnology, 2012, 87, 1367-1374.	1.6	15
42	Pyrolysis of microalgae for fuel production. , 2017, , 259-281.		12
43	Cascade Deoxygenation Process Integrating Acid and Base Catalysts for the Efficient Production of Second-Generation Biofuels. ACS Sustainable Chemistry and Engineering, 2019, 7, 18027-18037.	3.2	11
44	Effect of coâ€gasification of biomass and petroleum coke with coal on the production of gases. , 2012, 2, 304-313.		10
45	Kinetic rate of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si48.gif" overflow="scroll"><mml:mrow><mml:msub><mml:mrow><mml:mtext>CO</mml:mtext></mml:mrow><mml:mrow><mml:mn>2</mml: uptake of a synthetic Ca-based sorbent: Experimental data and numerical simulations. Fuel, 2014, 120, 53-65.	3.4	10
46	Stability of Li-LSX Zeolite in the Catalytic Pyrolysis of Non-Treated and Acid Pre-Treated Isochrysis sp. Microalgae. Energies, 2020, 13, 959.	1.6	7
47	High-temperature CO2 capture by fly ash derived sorbents: Effect of scale-up on sorbents performance. Chemical Engineering Journal, 2022, 429, 132201.	6.6	4
48	Transportation Biofuels via the Pyrolysis Pathway: Status and Prospects. , 2017, , 1-33.		3
49	Transportation Biofuels via the Pyrolysis Pathway: Status and Prospects. , 2019, , 1081-1112.		0