

JosÃ© Manuel LÃ³pez SebastiÃ¡n

List of Publications by Year in descending order

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91
papers

4,197
citations

126907

33
h-index

118850

62
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91
all docs

91
docs citations

91
times ranked

5164
citing authors

#	ARTICLE	IF	CITATIONS
1	The prevalence of surface oxygen vacancies over the mobility of bulk oxygen in nanostructured ceria for the total toluene oxidation. <i>Applied Catalysis B: Environmental</i> , 2015, 174-175, 403-412.	20.2	333
2	Partitioning of major and trace components in PM10â€“PM2.5â€“PM1 at an urban site in Southern Europe. <i>Atmospheric Environment</i> , 2008, 42, 1677-1691.	4.1	243
3	Source apportionment of atmospheric PM2.5-bound polycyclic aromatic hydrocarbons by a PMF receptor model. Assessment of potential risk for human health. <i>Environmental Pollution</i> , 2014, 195, 167-177.	7.5	190
4	Catalytic pyrolysis of wood biomass in an auger reactor using calcium-based catalysts. <i>Bioresource Technology</i> , 2014, 162, 250-258.	9.6	185
5	Production of upgraded bio-oils by biomass catalytic pyrolysis in an auger reactor using low cost materials. <i>Fuel</i> , 2015, 141, 17-22.	6.4	145
6	Comparison of receptor models for source apportionment of the PM10 in Zaragoza (Spain). <i>Chemosphere</i> , 2009, 76, 1120-1129.	8.2	141
7	Carbon black recovery from waste tire pyrolysis by demineralization: Production and application in rubber compounding. <i>Waste Management</i> , 2019, 85, 574-584.	7.4	128
8	Nature and sources of particle associated polycyclic aromatic hydrocarbons (PAH) in the atmospheric environment of an urban area. <i>Environmental Pollution</i> , 2013, 183, 166-174.	7.5	126
9	Promoting Deoxygenation of Bio-Oil by Metal-Loaded Hierarchical ZSM-5 Zeolites. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 1653-1660.	6.7	126
10	Levels of selected metals in ambient air PM10 in an urban site of Zaragoza (Spain). <i>Environmental Research</i> , 2005, 99, 58-67.	7.5	114
11	Spatial and temporal PAH concentrations in Zaragoza, Spain. <i>Science of the Total Environment</i> , 2003, 307, 111-124.	8.0	99
12	Tracers and impact of open burning of rice straw residues on PM in Eastern Spain. <i>Atmospheric Environment</i> , 2008, 42, 1941-1957.	4.1	98
13	Valorisation of forestry waste by pyrolysis in an auger reactor. <i>Waste Management</i> , 2011, 31, 1339-1349.	7.4	96
14	Geochemistry of regional background aerosols in the Western Mediterranean. <i>Atmospheric Research</i> , 2009, 94, 422-435.	4.1	92
15	PAH in airborne particulate matter.. <i>Fuel Processing Technology</i> , 2011, 92, 176-182.	7.2	84
16	Kinetic study for the co-pyrolysis of lignocellulosic biomass and plastics using the distributed activation energy model. <i>Energy</i> , 2018, 165, 731-742.	8.8	82
17	Catalytic co-pyrolysis of grape seeds and waste tyres for the production of drop-in biofuels. <i>Energy Conversion and Management</i> , 2018, 171, 1202-1212.	9.2	76
18	Influence of the preparation method on the activity of ceria zirconia mixed oxides for naphthalene total oxidation. <i>Applied Catalysis B: Environmental</i> , 2013, 132-133, 98-106.	20.2	73

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19	Some inferences on the mechanism of atmospheric gas/particle partitioning of polycyclic aromatic hydrocarbons (PAH) at Zaragoza (Spain). <i>Chemosphere</i> , 2008, 73, 1357-1365.	8.2	72
20	Oxygen defects: The key parameter controlling the activity and selectivity of mesoporous copper-doped ceria for the total oxidation of naphthalene. <i>Applied Catalysis B: Environmental</i> , 2012, 127, 77-88.	20.2	70
21	Adsorption of phenanthrene on activated carbons: Breakthrough curve modeling. <i>Carbon</i> , 2004, 42, 2009-2017.	10.3	67
22	Assessment of tire devolatilization kinetics. <i>Journal of Analytical and Applied Pyrolysis</i> , 2005, 74, 259-264.	5.5	66
23	Activation of pyrolytic tire char with CO ₂ : kinetic study. <i>Journal of Analytical and Applied Pyrolysis</i> , 2004, 71, 945-957.	5.5	57
24	Drop-in biofuels from the co-pyrolysis of grape seeds and polystyrene. <i>Chemical Engineering Journal</i> , 2019, 377, 120246.	12.7	57
25	Size-activity relationship of iridium particles supported on silica for the total oxidation of volatile organic compounds (VOCs). <i>Chemical Engineering Journal</i> , 2019, 366, 100-111.	12.7	56
26	Screening of different zeolites and silicoaluminophosphates for the retention of propene under cold start conditions. <i>Microporous and Mesoporous Materials</i> , 2010, 130, 239-247.	4.4	53
27	Production and Application of Activated Carbons Made from Waste Tire. <i>Industrial & Engineering Chemistry Research</i> , 2005, 44, 7228-7233.	3.7	48
28	Critical review on atmospheric PAH. Assessment of reported data in the Mediterranean basin. <i>Fuel Processing Technology</i> , 2003, 80, 183-193.	7.2	47
29	Evaluation of the effect of inert support on the carbonation reaction of synthetic CaO-based CO ₂ sorbents. <i>Chemical Engineering Journal</i> , 2018, 350, 559-572.	12.7	46
30	Long-Range Atmospheric Transport and Local Pollution Sources on PAH Concentrations in a South European Urban Area. Fulfilling of the European Directive. <i>Water, Air, and Soil Pollution</i> , 2008, 190, 271-285.	2.4	43
31	Low temperature total oxidation of toluene by bimetallic Au-Ir catalysts. <i>Catalysis Science and Technology</i> , 2017, 7, 2886-2896.	4.1	39
32	Measurements of Polycyclic Aromatic Hydrocarbon Adsorption on Activated Carbons at Very Low Concentrations. <i>Industrial & Engineering Chemistry Research</i> , 2003, 42, 155-161.	3.7	36
33	Kinetic Model Comparison for Waste Tire Char Reaction with CO ₂ . <i>Industrial & Engineering Chemistry Research</i> , 2004, 43, 7768-7773.	3.7	35
34	Benzo(a)pyrene, Benzo(a)anthracene, and Dibenzo(a,h)anthracene Emissions from Coal and Waste Tire Energy Generation at Atmospheric Fluidized Bed Combustion (AFBC). <i>Environmental Science & Technology</i> , 2001, 35, 2645-2649.	10.0	34
35	Source apportionment of the carcinogenic potential of polycyclic aromatic hydrocarbons (PAH) associated to airborne PM ₁₀ by a PMF model. <i>Environmental Science and Pollution Research</i> , 2014, 21, 2064-2076.	5.3	34
36	Au deposited on CeO ₂ prepared by a nanocasting route: A high activity catalyst for CO oxidation. <i>Journal of Catalysis</i> , 2014, 317, 167-175.	6.2	34

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37	Characterization of PM10-bound polycyclic aromatic hydrocarbons in the ambient air of Spanish urban and rural areas. <i>Journal of Environmental Monitoring</i> , 2011, 13, 319-327.	2.1	33
38	Three-Ring PAH Removal from Waste Hot Gas by Sorbents: Influence of the Sorbent Characteristics. <i>Environmental Science & Technology</i> , 2002, 36, 1821-1826.	10.0	32
39	Application of a particle model to pyrolysis. Comparison of different feedstock: Plastic, tyre, coal and biomass. <i>Fuel Processing Technology</i> , 2012, 103, 1-8.	7.2	32
40	Study of the viability of the process for hydrogen recovery from old tyre oils. <i>Fuel Processing Technology</i> , 2002, 75, 185-199.	7.2	31
41	Sorbent characteristics influence on the adsorption of PAC: I. PAH adsorption with the same number of rings. <i>Fuel Processing Technology</i> , 2002, 77-78, 373-379.	7.2	31
42	BaP (PAH) air quality modelling exercise over Zaragoza (Spain) using an adapted version of WRF-CMAQ model. <i>Environmental Pollution</i> , 2013, 183, 151-158.	7.5	31
43	Validation of the H ₂ production stage via SER under relevant conditions for the Ca/Cu reforming process practical application. <i>Chemical Engineering Journal</i> , 2017, 324, 266-278.	12.7	28
44	Optimised production of tailored syngas from municipal solid waste (MSW) by sorption-enhanced gasification. <i>Chemical Engineering Journal</i> , 2020, 401, 126067.	12.7	28
45	Complete Ca/Cu cycle for H ₂ production via CH ₄ sorption enhanced reforming in a Lab-Scale fixed bed reactor. <i>Chemical Engineering Journal</i> , 2018, 350, 1010-1021.	12.7	27
46	Moisture Effects on the Phenanthrene Adsorption Capacity by Carbonaceous Materials. <i>Energy & Fuels</i> , 2002, 16, 205-210.	5.1	26
47	Seasonal variation of benzo(a)pyrene in the Spanish airborne PM10. Multivariate linear regression model applied to estimate BaP concentrations. <i>Journal of Hazardous Materials</i> , 2010, 180, 648-655.	12.4	26
48	Total oxidation of naphthalene with high selectivity using a ceria catalyst prepared by a combustion method employing ethylene glycol. <i>Journal of Hazardous Materials</i> , 2009, 171, 393-399.	12.4	24
49	Effects of Limestone on Polycyclic Aromatic Hydrocarbon Emissions during Coal Atmospheric Fluidized Bed Combustion. <i>Energy & Fuels</i> , 2001, 15, 1469-1474.	5.1	23
50	Catalyst evaluation for high-purity H ₂ production by sorption-enhanced steam-methane reforming coupled to a Ca/Cu process. <i>Journal of Power Sources</i> , 2017, 363, 117-125.	7.8	23
51	Ca-based Catalysts for the Production of High-Quality Bio-Oils from the Catalytic Co-Pyrolysis of Grape Seeds and Waste Tyres. <i>Catalysts</i> , 2019, 9, 992.	3.5	23
52	Glycerol Selective Oxidation to Lactic Acid over AuPt Nanoparticles; Enhancing Reaction Selectivity and Understanding by Support Modification. <i>ChemCatChem</i> , 2020, 12, 3097-3107.	3.7	23
53	From laboratory scale to pilot plant: Evaluation of the catalytic co-pyrolysis of grape seeds and polystyrene wastes with CaO. <i>Catalysis Today</i> , 2021, 379, 87-95.	4.4	22
54	PAH Mixture Removal from Hot Gas by Porous Carbons. From Model Compounds to Real Conditions. <i>Industrial & Engineering Chemistry Research</i> , 2003, 42, 5280-5286.	3.7	21

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55	Modelling the heat and mass transfers of propane onto a ZSM-5 zeolite. Separation and Purification Technology, 2012, 86, 127-136.	7.9	21
56	Abatement of hydrocarbons by acid ZSM-5 and BETA zeolites under cold-start conditions. Adsorption, 2013, 19, 357-365.	3.0	20
57	BETA Zeolite Thin Films Supported on Honeycomb Monoliths with Tunable Properties as Hydrocarbon Traps under Cold-Start Conditions. ChemSusChem, 2013, 6, 1467-1477.	6.8	20
58	Effect of oxidation-reduction cycles on steam-methane reforming kinetics over a nickel-based catalyst. International Journal of Hydrogen Energy, 2019, 44, 12617-12627.	7.1	18
59	Influence of sorbent characteristics on the adsorption of PAC. Fuel Processing Technology, 2002, 77-78, 365-372.	7.2	17
60	Study of the Adsorption of Polyaromatic Hydrocarbon Binary Mixtures on Carbon Materials by Gas-Phase Fluorescence Detection. Energy & Fuels, 2003, 17, 669-676.	5.1	17
61	Development of Efficient Adsorbent Materials for PAH Cleaning from AFBC Hot Gas. Energy & Fuels, 2004, 18, 202-208.	5.1	17
62	Apportionment of the airborne PM10 in Spain. Episodes of potential negative impact for human health. Journal of Environmental Monitoring, 2012, 14, 1211.	2.1	17
63	Direct Fluorometric Determination of Total Cholesterol in Serum Using Derivatized Cholesterol Oxidase. Applied Spectroscopy, 2000, 54, 1157-1162.	2.2	15
64	Molecular simulation design of a multisite solid for the abatement of cold start emissions. Chemical Communications, 2012, 48, 6571.	4.1	15
65	Effects of CO2 on the Phenanthrene Adsorption Capacity of Carbonaceous Materials. Energy & Fuels, 2002, 16, 510-516.	5.1	14
66	Modeling of Activated Carbon Production from Lignite. Energy & Fuels, 2006, 20, 2627-2631.	5.1	13
67	Study of Pb sources by Pb isotope ratios in the airborne PM10 of Zaragoza, Spain. Journal of Environmental Monitoring, 2009, 11, 2052.	2.1	13
68	The Key Role of Nanocasting in Gold-based Fe ₂ O ₃ Nanocasted Catalysts for Oxygen Activation at the Metal-support Interface. ChemCatChem, 2019, 11, 1915-1927.	3.7	13
69	The role of temperature profile during the pyrolysis of end-of-life-tyres in an industrially relevant conditions auger plant. Journal of Environmental Management, 2022, 317, 115323.	7.8	13
70	Influence of organic and inorganic markers in the source apportionment of airborne PM10 in Zaragoza (Spain) by two receptor models. Environmental Science and Pollution Research, 2013, 20, 3240-3251.	5.3	12
71	Activation of Pyrolytic Lignite Char with CO2. Kinetic Study. Energy & Fuels, 2006, 20, 11-16.	5.1	11
72	Supported iridium catalysts for the total oxidation of short chain alkanes and their mixtures: Influence of the support. Chemical Engineering Journal, 2021, 417, 127999.	12.7	11

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73	Slagging in Fluidized Bed Combustion of Rubber Tire. Inorganic Component Evolution. Industrial & Engineering Chemistry Research, 2004, 43, 7762-7767.	3.7	10
74	Determining Bio-Oil Composition via Chemometric Tools Based on Infrared Spectroscopy. ACS Sustainable Chemistry and Engineering, 2017, 5, 8710-8719.	6.7	10
75	Insights into the production of upgraded biofuels using Mg-loaded mesoporous ZSM-5 zeolites. ChemCatChem, 2020, 12, 5236-5249.	3.7	9
76	A pyrolysis process coupled to a catalytic cracking stage: A potential waste-to-energy solution for mattress foam waste. Waste Management, 2021, 120, 415-423.	7.4	9
77	Polyaromatic Hydrocarbons in Flue Gases from Waste Tire Combustion. Polycyclic Aromatic Compounds, 2002, 22, 561-570.	2.6	8
78	Green synthesis of cavity-containing manganese oxides with superior catalytic performance in toluene oxidation. Applied Catalysis A: General, 2019, 582, 117107.	4.3	8
79	Principal component analysis and partial least square regression models to understand sorption-enhanced biomass gasification. Biomass Conversion and Biorefinery, 2024, 14, 2091-2111.	4.6	8
80	Soil, Water, and Air Environmental Impact from Tire Rubber/Coal Fluidized-Bed Cocombustion. Energy & Fuels, 2004, 18, 1633-1639.	5.1	7
81	Modelling the Breakthrough Curves Obtained from the Adsorption of Propene onto Microporous Inorganic Solids. Adsorption Science and Technology, 2010, 28, 761-775.	3.2	7
82	Using a pattern recognition approach to link inorganic chemical fingerprints of ambient PM _{2.5} ≤ 0.1 with in vitro biological effects. Air Quality, Atmosphere and Health, 2012, 5, 125-147.	3.3	7
83	Development of Synthetic Ca-based CO ₂ Sorbents for Sorption Enhanced Reforming Coupled to Ca/Cu Chemical Loop. Energy Procedia, 2017, 114, 230-241.	1.8	6
84	Prediction of elemental composition, water content and heating value of upgraded biofuel from the catalytic cracking of pyrolysis bio-oil vapors by infrared spectroscopy and partial least square regression models. Journal of Analytical and Applied Pyrolysis, 2018, 132, 102-110.	5.5	6
85	WHERE ARE THE LIMITS OF THE GAS-PHASE FLUORESCENCE ON THE POLYCYCLIC AROMATIC COMPOUND ANALYSIS?. Polycyclic Aromatic Compounds, 2004, 24, 325-332.	2.6	5
86	Insights into the catalytic production of hydrogen from propane in the presence of oxygen: Cooperative presence of vanadium and gold catalysts. Fuel Processing Technology, 2015, 134, 290-296.	7.2	4
87	Experimental investigation of the Ca-Cu process for H ₂ production: Evaluation of reduction/calcination strategies. International Journal of Greenhouse Gas Control, 2019, 83, 43-50.	4.6	4
88	The promoter effect of Nb species on the catalytic performance of Ir-based catalysts for VOCs total oxidation. Journal of Environmental Chemical Engineering, 2022, 10, 108261.	6.7	2
89	Phenanthrene Adsorption on a Carbonaceous Material: Moisture and CO ₂ Influence. Studies in Surface Science and Catalysis, 2002, 144, 283-290.	1.5	1
90	Limestone Influence on PAH Emissions from Coal AFBC. Catalytic or/and Adsorption Effect?. Studies in Surface Science and Catalysis, 2002, , 403-409.	1.5	0

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91	Using WRF-CMAQ Air Quality Modelling System to Estimate BaP Concentrations over Zaragoza (Spain). Springer Proceedings in Complexity, 2014, , 161-165.	0.3	0