M Teresa Izquierdo

List of Publications by Year
in descending order

132	4,161	76294	149623
papers	citations	40 h-index	56 g-index

132	132	132	3422
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Negative CO2 emissions through the use of biofuels in chemical looping technology: A review. Applied Energy, 2018, 232, 657-684.	5.1	166
2	Hydrogen adsorption studies on single wall carbon nanotubes. Carbon, 2004, 42, 1243-1248.	5.4	154
3	Nitrogen-doped carbon materials produced from hydrothermally treated tannin. Carbon, 2012, 50, 5411-5420.	5.4	127
4	Different approaches to proximate analysis by thermogravimetry analysis. Thermochimica Acta, 2001, 370, 91-97.	1.2	104
5	Low-temperature co-pyrolysis of a low-rank coal and biomass to prepare smokeless fuel briquettes. Journal of Analytical and Applied Pyrolysis, 2003, 70, 665-677.	2.6	89
6	Biomass chemical looping gasification for syngas production using ilmenite as oxygen carrier in a 1.5 kWth unit. Chemical Engineering Journal, 2021, 405, 126679.	6.6	84
7	Experimental evidence of an upper limit for hydrogen storage at 77 K on activated carbons. Carbon, 2010, 48, 1902-1911.	5.4	79
8	Influence of activation atmosphere used in the chemical activation of almond shell on the characteristics and adsorption performance of activated carbons. Fuel Processing Technology, 2014, 119, 74-80.	3.7	76
9	Activated carbons doped with Pd nanoparticles for hydrogen storage. International Journal of Hydrogen Energy, 2012, 37, 5072-5080.	3.8	73
10	Optimization of activated carbons for hydrogen storage. International Journal of Hydrogen Energy, 2011, 36, 11746-11751.	3.8	72
11	Chemical Looping Combustion of different types of biomass in a 0.5 kWth unit. Fuel, 2018, 211, 868-875.	3.4	72
12	Adsorption and compression contributions to hydrogen storage in activated anthracites. International Journal of Hydrogen Energy, 2010, 35, 9038-9045.	3.8	67
13	Release of pollutant components in CLC of lignite. International Journal of Greenhouse Gas Control, 2014, 22, 15-24.	2.3	65
14	Biomass Chemical Looping Gasification of pine wood using a synthetic Fe2O3/Al2O3 oxygen carrier in a continuous unit. Bioresource Technology, 2020, 316, 123908.	4.8	65
15	Outstanding electrochemical performance of highly N- and O-doped carbons derived from pine tannin. Green Chemistry, 2017, 19, 2653-2665.	4.6	63
16	Chemical Looping Combustion of gaseous and solid fuels with manganese-iron mixed oxide as oxygen carrier. Energy Conversion and Management, 2018, 159, 221-231.	4.4	61
17	Chemical looping combustion of biomass: CLOU experiments with a Cu-Mn mixed oxide. Fuel Processing Technology, 2018, 172, 179-186.	3.7	61
18	Long-lasting Cu-based oxygen carrier material for industrial scale in Chemical Looping Combustion. International Journal of Greenhouse Gas Control, 2016, 52, 120-129.	2.3	60

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19	Excellent electrochemical performances of nanocast ordered mesoporous carbons based on tannin-related polyphenols as supercapacitor electrodes. Journal of Power Sources, 2017, 344, 15-24.	4.0	57
20	Titanium substituted manganese-ferrite as an oxygen carrier with permanent magnetic properties for chemical looping combustion of solid fuels. Fuel, 2017, 195, 38-48.	3.4	56
21	Kinetics of the hydrothermal treatment of tannin for producing carbonaceous microspheres. Bioresource Technology, 2014, 151, 271-277.	4.8	55
22	Sulphur, nitrogen and mercury emissions from coal combustion with CO2 capture in chemical looping with oxygen uncoupling (CLOU). International Journal of Greenhouse Gas Control, 2016, 46, 28-38.	2.3	55
23	Activated carbons with appropriate micropore size distribution for hydrogen adsorption. International Journal of Hydrogen Energy, 2011, 36, 5431-5434.	3.8	54
24	Hydrogen storage in activated carbons produced from coals of different ranks: Effect of oxygen content. International Journal of Hydrogen Energy, 2014, 39, 4996-5002.	3.8	54
25	Ordered mesoporous carbons obtained by soft-templating of tannin in mild conditions. Microporous and Mesoporous Materials, 2018, 270, 127-139.	2.2	54
26	Influence of low-rank coal char properties on their SO2 removal capacity from flue gases: I. Non-activated chars. Carbon, 1997, 35, 1005-1011.	5.4	53
27	Assessment of hydrogen storage in activated carbons produced from hydrothermally treated organic materials. International Journal of Hydrogen Energy, 2016, 41, 12146-12156.	3.8	53
28	Optimization of Li₄SiO₄ synthesis conditions by a solid state method for maximum CO₂ capture at high temperature. Journal of Materials Chemistry A, 2018, 6, 3249-3257.	5.2	53
29	Carbon-enriched coal fly ash as a precursor of activated carbons for SO2 removal. Journal of Hazardous Materials, 2008, 155, 199-205.	6.5	51
30	Effect of H2S on the behaviour of an impregnated NiO-based oxygen-carrier for chemical-looping combustion (CLC). Applied Catalysis B: Environmental, 2012, 126, 186-199.	10.8	50
31	Unburnt carbon from coal fly ashes as a precursor of activated carbon for nitric oxide removal. Journal of Hazardous Materials, 2007, 143, 561-566.	6.5	48
32	Hydrogen uptake of high surface area-activated carbons doped with nitrogen. International Journal of Hydrogen Energy, 2013, 38, 10453-10460.	3.8	48
33	Impact of synthesis conditions of KOH activated carbons on their hydrogen storage capacities. International Journal of Hydrogen Energy, 2012, 37, 14278-14284.	3.8	46
34	High-Rate Capability of Supercapacitors Based on Tannin-Derived Ordered Mesoporous Carbons. ACS Sustainable Chemistry and Engineering, 2019, 7, 17627-17635.	3.2	46
35	High surface â€“ Highly N-doped carbons from hydrothermally treated tannin. Industrial Crops and Products, 2015, 66, 282-290.	2.5	44
36	Influence of low-rank coal char properties on their SO2 removal capacity from flue gases. 2. Activated chars. Carbon, 1998, 36, 263-268.	5.4	43

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37	Modifications to the surface chemistry of low-rank coal-based carbon catalysts to improve flue gas nitric oxide removal. Applied Catalysis B: Environmental, 2001, 33, 315-324.	10.8	42
38	Influence of temperature and regeneration cycles on Hg capture and efficiency by structured Au/C regenerable sorbents. Journal of Hazardous Materials, 2013, 260, 247-254.	6.5	42
39	Aluminosilicates transformations in combustion followed by DSC. Thermochimica Acta, 2001, 373, 173-180.	1.2	41
40	Curing temperature effect on mechanical strength of smokeless fuel briquettes prepared with molassesâˆ†. Fuel, 2003, 82, 943-947.	3.4	41
41	Physisorption, chemisorption and spill-over contributions to hydrogen storage. International Journal of Hydrogen Energy, 2016, 41, 17442-17452.	3.8	41
42	Effect of binder addition on the mechanical and physicochemical properties of low rank coal char briquettes. Carbon, 1999, 37, 1833-1841.	5.4	40
43	Lithium-based sorbents for high temperature CO2 capture: Effect of precursor materials and synthesis method. Fuel, 2018, 230, 45-51.	3.4	40
44	Biomass chemical looping gasification for syngas production using LD Slag as oxygen carrier in a 1.5 kWth unit. Fuel Processing Technology, 2021, 222, 106963.	3.7	39
45	Conversion of almond shell to activated carbons: Methodical study of the chemical activation based on an experimental design and relationship with their characteristics. Biomass and Bioenergy, 2011, 35, 1235-1244.	2.9	38
46	Activated carbons obtained from sewage sludge by chemical activation: Gas-phase environmental applications. Journal of Environmental Management, 2014, 140, 145-151.	3.8	37
47	Evaluation of Mn-Fe mixed oxide doped with TiO2 for the combustion with CO2 capture by Chemical Looping assisted by Oxygen Uncoupling. Applied Energy, 2019, 237, 822-835.	5.1	37
48	Influence of Char Physicochemical Features on the Flue Gas Nitric Oxide Reduction with Chars. Environmental Science & Technology, 1998, 32, 4017-4022.	4.6	36
49	Preparation and characterization of carbon-enriched coal fly ash. Journal of Environmental Management, 2008, 88, 1562-1570.	3.8	35
50	Toluene and n-hexane adsorption and recovery behavior on activated carbons derived from almond shell wastes. Fuel Processing Technology, 2013, 110, 1-7.	3.7	35
51	Relevance of the catalytic activity on the performance of a NiO/CaAl2O4 oxygen carrier in a CLC process. Applied Catalysis B: Environmental, 2014, 147, 980-987.	10.8	35
52	Mercury Release and Speciation in Chemical Looping Combustion of Coal. Energy & Fuels, 2014, 28, 2786-2794.	2.5	34
53	Coal combustion via Chemical Looping assisted by Oxygen Uncoupling with a manganeseâ€'iron mixed oxide doped with titanium. Fuel Processing Technology, 2020, 197, 106184.	3.7	33
54	Coal fly ash based carbons for SO2 removal from flue gases. Waste Management, 2010, 30, 1341-1347.	3.7	32

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55	Functionalized, hierarchical and ordered mesoporous carbons for high-performance supercapacitors. Journal of Materials Chemistry A, 2016, 4, 6140-6148.	5.2	32
56	Adsorption of toluene and tolueneâ€“water vapor mixture on almond shell based activated carbons. Adsorption, 2013, 19, 1137-1148.	1.4	31
57	Comparative study of fuel-N and tar evolution in chemical looping combustion of biomass under both iG-CLC and CLOU modes. Fuel, 2019, 236, 598-607.	3.4	31
58	Rice straw-based activated carbons doped with SiC for enhanced hydrogen adsorption. International Journal of Hydrogen Energy, 2017, 42, 11534-11540.	3.8	30
59	Optimization of synthesis gas production in the biomass chemical looping gasification process operating under auto-thermal conditions. Energy, 2021, 226, 120317.	4.5	30
60	Syngas Production in a 1.5 kW_{th} Biomass Chemical Looping Gasification Unit Using Fe and Mn Ores as the Oxygen Carrier. Energy & Fuels, 2021, 35, 17182-17196.	2.5	30
61	On the optimization of physical and chemical stability of a Cu/Al2O3 impregnated oxygen carrier for chemical looping combustion. Fuel Processing Technology, 2021, 215, 106740.	3.7	28
62	Production of hydrogen by chemical looping reforming of methane and biogas using a reactive and durable Cu-based oxygen carrier. Fuel, 2022, 322, 124250.	3.4	26
63	Oxygen-promoted hydrogen adsorption on activated and hybrid carbon materials. International Journal of Hydrogen Energy, 2020, 45, 30767-30782.	3.8	25
64	Tail-end Hg capture on Au/carbon-monolith regenerable sorbents. Journal of Hazardous Materials, 2011, 193, 304-310.	6.5	24
65	Spray granulated Cu-Mn oxygen carrier for chemical looping with oxygen uncoupling (CLOU) process. International Journal of Greenhouse Gas Control, 2017, 65, 76-85.	2.3	24
66	Development of a magnetic Cu-based oxygen carrier for the chemical looping with oxygen uncoupling (CLOU) process. Fuel Processing Technology, 2021, 218, 106836.	3.7	23
67	Curing time effect on mechanical strength of smokeless fuel briquettes. Fuel Processing Technology, 2003, 80, 155-167.	3.7	22
68	Chemical Looping Combustion of Biomass: An Approach to BECCS. Energy Procedia, 2017, 114, 6021-6029.	1.8	22
69	Influence of activation conditions on textural properties and performance of activated biochars for pyrolysis vapors upgrading. Fuel, 2021, 289, 119759.	3.4	22
70	Enhancement of nitric oxide removal by ammonia on a low-rank coal based carbon by sulphuric acid treatment. Fuel Processing Technology, 2011, 92, 1362-1367.	3.7	21
71	A Critical Short Review of Equilibrium and Kinetic Adsorption Models for VOCs Breakthrough Curves Modelling. Adsorption Science and Technology, 2015, 33, 851-869.	1.5	21
72	Upgrading of pine tannin biochars as electrochemical capacitor electrodes. Journal of Colloid and Interface Science, 2021, 601, 863-876.	5.0	21

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73	Mercury capture by a regenerable sorbent under oxycoal combustion conditions: Effect of SO 2 and O 2 on capture efficiency. Chemical Engineering Science, 2015, 122, 232-239.	1.9	20
74	Thermochemical assessment of chemical looping assisted by oxygen uncoupling with a MnFe-based oxygen carrier. Applied Energy, 2019, 251, 113340.	5.1	20
75	Sugarcane molasses as a pseudocapacitive material for supercapacitors. RSC Advances, 2016, 6, 88826-88836.	1.7	18
76	The fate of mercury in fluidized beds under oxy-fuel combustion conditions. Fuel, 2016, 167, 75-81.	3.4	18
77	Evaluation of different strategies to improve the efficiency of coal conversion in a 50ÂkWth Chemical Looping combustion unit. Fuel, 2020, 271, 117514.	3.4	18
78	Mechanism of interaction of pyrite with hematite as simulation of slagging and fireside tube wastage in coal combustion. Thermochimica Acta, 2002, 390, 103-111.	1.2	17
79	Improving the oxygen demand in biomass CLC using manganese ores. Fuel, 2020, 274, 117803.	3.4	17
80	Mercury capture by a structured Au/C regenerable sorbent under oxycoal combustion representative and real conditions. Fuel, 2017, 207, 821-829.	3.4	16
81	High-Temperature CO₂ Capture by Li₄SiO₄ Sorbents: Effect of CO₂ Concentration and Cyclic Performance under Representative Conditions. Industrial & Engineering Chemistry Research, 2018, 57, 13802-13810.	1.8	16
82	Synthesis and properties of carbon microspheres based on tanninâ€“sucrose mixtures treated in hydrothermal conditions. Industrial Crops and Products, 2020, 154, 112564.	2.5	16
83	Effect of the Fe content on the behavior of synthetic oxygen carriers in a 1.5ÂkW biomass chemical looping gasification unit. Fuel, 2022, 309, 122193.	3.4	16
84	Low-cost carbon-based briquettes for the reduction of no emissions from mediumâ€“small stationary sources. Catalysis Today, 2007, 119, 175-180.	2.2	15
85	Novel carbon based catalysts for the reduction of NO: Influence of support precursors and active phase loading. Catalysis Today, 2008, 137, 215-221.	2.2	15
86	Evaluation of the redox capability of manganeseâ€titanium mixed oxides for thermochemical energy storage and chemical looping processes. Fuel Processing Technology, 2021, 211, 106579.	3.7	15
87	Segregation of straw/sand mixtures in fluidized beds in non-steady state. Powder Technology, 1991, 68, 31-35.	2.1	14
88	Structure and electrochemical properties of carbon nanostructures derived from nickel(II) and iron(II) phthalocyanines. Journal of Advanced Research, 2020, 22, 85-97.	4.4	14
89	Model carbon materials derived from tannin to assess the importance of pore connectivity in supercapacitors. Renewable and Sustainable Energy Reviews, 2021, 151, 111600.	8.2	14
90	Network swelling of coals. Fuel, 1990, 69, 892-895.	3.4	13

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91	Iron catalyzed hydrogenation of high sulphur content coals. Fuel Processing Technology, 1993, 36, 177-184.	3.7	13
92	Cu-Mn oxygen carrier with improved mechanical resistance: Analyzing performance under CLC and CLOU environments. Fuel Processing Technology, 2021, 217, 106819.	3.7	13
93	Qualification of operating conditions to extend oxygen carrier utilization in the scaling up of chemical looping processes. Chemical Engineering Journal, 2022, 430, 132602.	6.6	13
94	Pyrrhotite deposition through thermal projection to simulate iron sulphide slagging in oxyfuel combustion. Fuel, 2012, 101, 197-204.	3.4	12
95	Effect of thermal treatments on the morphology, chemical state and lattice structure of gold nanoparticles deposited onto carbon structured monoliths. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 468, 140-150.	2.3	12
96	Roles of Surface Chemistry and Texture of Nanoporous Activated Carbons in CO₂ Capture. ACS Applied Nano Materials, 2022, 5, 3843-3854.	2.4	12
97	CO2 outperforms KOH as an activator for high-rate supercapacitors in aqueous electrolyte. Renewable and Sustainable Energy Reviews, 2022, 167, 112716.	8.2	12
98	Curing temperature effect on smokeless fuel briquettes prepared with molasses and H3PO4â˜†. Fuel, 2003, 82, 1669-1673.	3.4	11
99	Study of the curing temperature effect on binders for smokeless briquettes by Fourier transform infrared spectroscopy. Vibrational Spectroscopy, 2003, 31, 81-87.	1.2	10
100	Behavior of a manganese-iron mixed oxide doped with titanium in reducing the oxygen demand for CLC of biomass. Fuel, 2021, 292, 120381.	3.4	10
101	Coal and biomass combustion with CO2 capture by CLOU process using a magnetic Fe-Mn-supported CuO oxygen carrier. Fuel, 2022, 314, 122742.	3.4	10
102	Novel magnetic manganese-iron materials for separation of solids used in high-temperature processes: Application to oxygen carriers for chemical looping combustion. Fuel, 2022, 320, 123901.	3.4	10
103	Influence of an Oxygen Carrier on the CH₄ Reforming Reaction Linked to the Biomass Chemical Looping Gasification Process. Energy & Fuels, 2022, 36, 9460-9469.	2.5	10
104	DSC study of curing in smokeless briquetting. Thermochimica Acta, 2001, 371, 41-44.	1.2	9
105	Denitrification of Stack Gases in the Presence of Low-Rank Coal-Based Carbons Activated with Steam. Energy & Fuels, 2007, 21, 2033-2037.	2.5	9
106	Nanostructured tin oxide materials for the sub-ppm detection of indoor formaldehyde pollution. Talanta, 2020, 208, 120396.	2.9	9
107	From coal to char. Carbon, 1992, 30, 375-378.	5.4	8
108	Role of Iron in Dry Coal Hydroconversion. Energy & Fuels, 1995, 9, 753-759.	2.5	8

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109	Novel methodology for gold nanoparticles deposition on carbon monolith supports. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 441, 91-100.	2.3	7
110	Influence of crystal/particle size and gold content of a structured Au/C based sorbent on mercury capture. Journal of Physics and Chemistry of Solids, 2017, 110, 173-179.	1.9	7
111	Activated carbon xerogels derived from phenolic oil: Basic catalysis synthesis and electrochemical performances. Fuel Processing Technology, 2020, 205, 106427.	3.7	7
112	No removal in the selective catalitic reduction process over Cu and Fe exchanged type Y zeolites synthesized from coal fly ash. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2016, 38, 1183-1188.	1.2	6
113	Mercury emissions from coal combustion in fluidized beds under oxy-fuel and air conditions: Influence of coal characteristics and O2 concentration. Fuel Processing Technology, 2017, 167, 695-701.	3.7	6
114	Evaluation of (MnxFe1-x)2TiyOz Particles as Oxygen Carrier for Chemical Looping Combustion. Energy Procedia, 2017, 114, 302-308.	1.8	6
115	Effect of the Presence of Siloxanes in Biogas Chemical Looping Combustion. Energy & Fuels, 2021, 35, 14984-14994.	2.5	6
116	Curing Temperature Effect on Mechanical Strength of Smokeless Fuel Briquettes Prepared with Humates. Energy & Fuels, 2003, 17, 419-423.	2.5	5
117	Iron-based oxygen carrier particles produced from micronized size minerals or industrial wastes. Powder Technology, 2022, 396, 637-647.	2.1	5
118	Influence of the Activation Temperature on the SO₂Removal Capacity and Mechanical Performance of Pelletized Activated Chars. Environmental Technology (United Kingdom), 2001, 22, 1081-1089.	1.2	4
119	Evaluation of coal conversion by swelling measurement. Fuel Processing Technology, 1990, 24, 171-178.	3.7	3
120	Title is missing!. Oxidation of Metals, 2003, 59, 395-407.	1.0	3
121	Easy Preparation of Tanninâ€Based Ag Catalysts for Ethylene Epoxidation. ChemistrySelect, 2017, 2, 8509-8516.	0.7	3
122	Relation between release of conversion products in coal liquefaction and cross-linking. Fuel, 1994, 73, 925-928.	3.4	2
123	A novel approach for characterising carbon catalysts by TAP experiments. Studies in Surface Science and Catalysis, 2002, 144, 255-260.	1.5	2
124	High-performances carbonaceous adsorbents for hydrogen storage. Journal of Physics: Conference Series, 2013, 416, 012024.	0.3	2
125	Synthesis of bio-based xerogels from lignin precipitated from the black liquor of the paper industry for supercapacitors electrodes. Biomass and Bioenergy, 2021, 155, 106296.	2.9	2
126	Comparative study of residues from dry hydrogenation and low temperature pyrolysis. Fuel Processing Technology, 1990, 25, 241-250.	3.7	1

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127	Char formation and release of liquids in catalysed hydropyrolysis. Fuel Processing Technology, 1994, 37, 87-97.	3.7	1
128	COAL BEHAVIOUR IN DRY RAPID CATALYTIC HYDROGENATION. , 1991, , 814-817.		1
129	Iron from two different catalytic precursors in coal hydrogenation. Coal Science and Technology, 1995, , 1335-1338.	0.0	0
130	Operational Experience of Biomass Combustion Using Chemical Looping Processes. , 0, , .		0
131	Chemical Looping Combustion of Biomass: Clou Experiments with a Cu-Mn Mixed Oxide. , 0, , .		0
132	In-Situ Co2 Capture in Magnesium Production Industrial Processes. SSRN Electronic Journal, 0, , .	0.4	0