Javier Herguido

List of Publications by Year in descending order

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109	2,748	159585	223800
papers	citations	30 h-index	46 g-index

111	111	111	2293
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Steam gasification of lignocellulosic residues in a fluidized bed at a small pilot scale. Effect of the type of feedstock. Industrial & Engineering Chemistry Research, 1992, 31, 1274-1282.	3.7	257
2	Propane dehydrogenation over a Cr2O3/Al2O3 catalyst: transient kinetic modeling of propene and coke formation. Applied Catalysis A: General, 2003, 248, 105-116.	4.3	124
3	Transient kinetic modelling of propane dehydrogenation over a Ptâ€“Snâ€“K/Al2O3 catalyst. Applied Catalysis A: General, 2008, 349, 156-164.	4.3	108
4	Preparation and characterization of Ce-Zr and Ce-Mn based oxides for n-hexane combustion: Application to catalytic membrane reactors. Chemical Engineering Journal, 2007, 126, 119-130.	12.7	103
5	Hydrogenation of Acetylene over Ni/NiAl2O4Catalyst: Characterization, Coking, and Reaction Studies. Journal of Catalysis, 1996, 159, 313-322.	6.2	84
6	Oxidative Dehydrogenation of Alkanes over V-based Catalysts: Influence of Redox Properties on Catalytic Performance. Journal of Catalysis, 1999, 185, 324-332.	6.2	70
7	Kinetic study of the redox process for storing hydrogen. Catalysis Today, 2006, 116, 439-444.	4.4	66
8	On the use of fluidized bed catalytic reactors where reduction and oxidation zones are present simultaneously. Catalysis Today, 2005, 100, 181-189.	4.4	54
9	Oxidative Dehydrogenation of n-Butane in a Two-Zone Fluidized-Bed Reactor. Industrial & Engineering Chemistry Research, 1999, 38, 90-97.	3.7	53
10	Counteracting Catalyst Deactivation in Methane Aromatization with a Two Zone Fluidized Bed Reactor. Industrial & Engineering Chemistry Research, 2010, 49, 996-1000.	3.7	52
11	A two-zone fluidized bed reactor for catalytic propane dehydrogenation. Chemical Engineering Journal, 2005, 106, 91-96.	12.7	49
12	Separation and storage of hydrogen by steam-iron process: Effect of added metals upon hydrogen release and solid stability. Journal of Power Sources, 2009, 192, 224-229.	7.8	49
13	Combination of a Two-Zone Fluidized Bed Reactor with a Pd hollow fibre membrane for catalytic alkane dehydrogenation. Chemical Engineering Journal, 2009, 155, 298-303.	12.7	46
14	Kinetic study of the redox process for separating and storing hydrogen: Oxidation stage and ageing of solid. International Journal of Hydrogen Energy, 2008, 33, 615-626.	7.1	45
15	Dry reforming of biogas in fluidized bed: Process intensification. International Journal of Hydrogen Energy, 2017, 42, 13589-13597.	7.1	44
16	Zeolite membranes: Comparison in the separation of H2O/H2/CO2 mixtures and test of a reactor for CO2 hydrogenation to methanol. Catalysis Today, 2021, 364, 270-275.	4.4	43
17	Oxidative dehydrogenation of n-butane on V/MgO catalystsâ€”kinetic study in anaerobic conditions. Chemical Engineering Science, 2003, 58, 4619-4627.	3.8	42
18	Steam-iron process: Influence of steam on the kinetics of iron oxide reduction. International Journal of Hydrogen Energy, 2011, 36, 13425-13434.	7.1	40

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19	Preliminary study on the feasibility of using a zeolite A membrane in a membrane reactor for methanol production. Separation and Purification Technology, 2018, 200, 164-168.	7.9	40
20	Pure hydrogen from biogas: Intensified methane dry reforming in a two-zone fluidized bed reactor using permselective membranes. Chemical Engineering Journal, 2019, 370, 772-781.	12.7	40
21	A generalized kinetic model for the partial oxidation of n-butane to maleic anhydride under aerobic and anaerobic conditions. Chemical Engineering Science, 2006, 61, 6385-6394.	3.8	37
22	Kinetic Study of Dry Reforming of Methane Over Niâ€“Ce/Al2O3 Catalyst with Deactivation. Topics in Catalysis, 2019, 62, 456-466.	2.8	36
23	Cycle behaviour of iron ores in the steam-iron process. International Journal of Hydrogen Energy, 2011, 36, 7043-7050.	7.1	35
24	MoO3/MgO as a catalyst in the oxidative dehydrogenation of n-butane in a two-zone fluidized bed reactor. Catalysis Today, 2000, 61, 101-107.	4.4	33
25	Propane Dehydrogenation over Ptâ^'Snâ^'K/Î³-Al₂O₃ Catalyst in a Two-Zone Fluidized Bed Reactor. Industrial & Engineering Chemistry Research, 2008, 47, 9314-9320.	3.7	33
26	Combined production and purification of hydrogen from methanol using steam iron process in fixed bed reactor. Journal of Power Sources, 2013, 242, 520-526.	7.8	33
27	Experimental methods in chemical engineering: Reactorsâ€”fluidized beds. Canadian Journal of Chemical Engineering, 2019, 97, 2383-2394.	1.7	32
28	Purified hydrogen from synthetic biogas by joint methane dry reforming and steam-iron process: Behaviour of metallic oxides and coke formation. Fuel, 2014, 118, 100-106.	6.4	31
29	Conventional and improved fluidized bed reactors for dry reforming of methane: Mathematical models. Chemical Engineering Journal, 2020, 393, 124775.	12.7	31
30	Selective oxidation of o-xylene to phthalic anhydride over V2O5/TiO2: Kinetic study in a fluidized bed reactor. Chemical Engineering and Processing: Process Intensification, 2008, 47, 1844-1852.	3.6	30
31	Hydrogen from ethanol by steam iron process in fixed bed reactor. International Journal of Hydrogen Energy, 2014, 39, 5267-5273.	7.1	30
32	Effect of the presence of light hydrocarbon mixtures on hydrogen permeance through Pdâ€“Ag alloyed membranes. International Journal of Hydrogen Energy, 2015, 40, 3462-3471.	7.1	30
33	Methane combustion over unsupported iron oxide catalysts. Catalysis Today, 2001, 64, 43-50.	4.4	29
34	Total combustion of methyl-ethyl ketone over Fe2O3 based catalytic membrane reactors. Applied Catalysis B: Environmental, 2003, 46, 133-143.	20.2	27
35	Oxidative dehydrogenation of butane in an interconnected fluidized-bed reactor. AICHE Journal, 2004, 50, 1510-1522.	3.6	27
36	Experimental Study on the Oxidation of Butane to Maleic Anhydride in a Two-Zone Fluidized Bed Reactor. Industrial & Engineering Chemistry Research, 2002, 41, 5181-5186.	3.7	26

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37	Kinetic study of the combustion of methyl-ethyl ketone over Î±-hematite catalyst. Chemical Engineering Journal, 2004, 102, 107-117.	12.7	26
38	Coupled PIV/DIA for fluid dynamics studies on a Two-Section Two-Zone Fluidized Bed Reactor. Chemical Engineering Journal, 2012, 207-208, 122-132.	12.7	25
39	Oxidation of Hydrocarbons in anin SituRedox Fluidized Bed Reactor. Journal of Catalysis, 1996, 163, 218-221.	6.2	24
40	Modelling of a two-zone fluidised bed reactor for the oxidative dehydrogenation of n-butane. Powder Technology, 2001, 120, 88-96.	4.2	24
41	Two-Zone Fluidized Bed Reactor (TZFBR) with Palladium Membrane for Catalytic Propane Dehydrogenation: Experimental Performance Assessment. Industrial & Engineering Chemistry Research, 2013, 52, 3723-3731.	3.7	23
42	Glycerol steam reforming with low steam/glycerol ratio in a two-zone fluidized bed reactor. Catalysis Today, 2018, 299, 317-327.	4.4	23
43	Oxidative dehydrogenation of n-butane on V/MgO catalysts. Influence of the type of contactor. Catalysis Letters, 1998, 50, 25-30.	2.6	22
44	Conceptual design and modelling of the Steam-Iron process and fuel cell integrated system. International Journal of Hydrogen Energy, 2009, 34, 5554-5562.	7.1	22
45	Hydrodynamic study of a Two-Section Two-Zone Fluidized Bed Reactor with an immersed tube bank via PIV/DIA. Chemical Engineering Science, 2015, 134, 238-250.	3.8	22
46	Particle Mixing in a Two-Section Two-Zone Fluidized Bed Reactor. Experimental Technique and Counter-Current Back-Mixing Model Validation. Industrial & Engineering Chemistry Research, 2013, 52, 13587-13596.	3.7	21
47	Catalytic dehydrogenation of n-butane in a fluidized bed reactor with separate coking and regeneration zones. Studies in Surface Science and Catalysis, 2000, , 2717-2722.	1.5	20
48	Fluidized Bed Reactors with Two-Zones for Maleic Anhydride Production:Â Different Configurations and Effect of Scale. Industrial & Engineering Chemistry Research, 2005, 44, 8945-8951.	3.7	20
49	Stable hydrogen production by methane steam reforming in a two zone fluidized bed reactor: Experimental assessment. Journal of Power Sources, 2013, 243, 233-241.	7.8	20
50	Biogas to high purity hydrogen by methane dry reforming in TZFBR+MB and exhaustion by Steam-Iron Process. Technoâ€“economic assessment. International Journal of Hydrogen Energy, 2018, 43, 11663-11675.	7.1	20
51	Modeling of fluidized bed reactors with two reaction zones. AICHE Journal, 2006, 52, 3911-3923.	3.6	19
52	Ptâ^'Sn/MgAl2O4 as n-Butane Dehydrogenation Catalyst in a Two-Zone Fluidized-Bed Reactor. Industrial & Engineering Chemistry Research, 2009, 48, 6573-6578.	3.7	19
53	Iron oxide ores as carriers for the production of high purity hydrogen from biogas by steamâ€“iron process. International Journal of Hydrogen Energy, 2017, 42, 13607-13616.	7.1	18
54	Stable Steam Reforming of Ethanol in a Two-Zone Fluidized-Bed Reactor. Industrial & Engineering Chemistry Research, 2012, 51, 8840-8848.	3.7	17

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55	Stable hydrogen production by methane steam reforming in a two-zone fluidized-bed reactor: Effect of the operating variables. International Journal of Hydrogen Energy, 2013, 38, 7830-7838.	7.1	17
56	Hydrogen from synthetic biogas by catalyzed MDR and SIP: Screening of catalyst and iron oxide mixtures. Fuel, 2015, 140, 470-476.	6.4	17
57	Production and purification of hydrogen by biogas combined reforming and steam-iron process. International Journal of Hydrogen Energy, 2019, 44, 19244-19254.	7.1	17
58	Two-zone fluidized bed reactor for simultaneous reaction and catalyst reoxidation: influence of reactor size. Applied Catalysis A: General, 2004, 272, 321-327.	4.3	16
59	Use of Fluidized Bed Reactors for Direct Gas Phase Oxidation of Benzene to Phenol. Industrial & Engineering Chemistry Research, 2010, 49, 6810-6814.	3.7	16
60	Pd-Ag Membrane Coupled to a Two-Zone Fluidized Bed Reactor (TZFBR) for Propane Dehydrogenation on a Pt-Sn/MgAl2O4 Catalyst. Membranes, 2013, 3, 69-86.	3.0	16
61	A non-parametric bubble size correlation for a Two-Section Two-Zone Fluidized Bed Reactor (TS-TZFBR). Powder Technology, 2014, 256, 146-157.	4.2	16
62	CFD model prediction of the Two-Section Two-Zone Fluidized Bed Reactor (TS-TZFBR) hydrodynamics. Chemical Engineering Journal, 2014, 248, 352-362.	12.7	16
63	Catalysts for the production of styrene from ethylbenzene: Redox and deactivation study. Catalysis Today, 2013, 203, 53-59.	4.4	14
64	Hydrogen from synthetic biogas via SIP using NiAl2O4 catalyst: Reduction stage. International Journal of Hydrogen Energy, 2015, 40, 5244-5250.	7.1	14
65	Advances and trends in two-zone fluidized-bed reactors. Current Opinion in Chemical Engineering, 2017, 17, 15-21.	7.8	14
66	Catalytic wet oxidation of phenol using membrane reactors: A comparative study with slurry-type reactors. Catalysis Today, 2010, 149, 326-333.	4.4	13
67	Molybdenum addition to modified iron oxides for improving hydrogen separation in fixed bed by redox processes. International Journal of Hydrogen Energy, 2012, 37, 6978-6984.	7.1	13
68	Characterization of porous ceramic membranes for their use in catalytic reactors for methane oxidative coupling. Catalysis Today, 1995, 25, 263-269.	4.4	12
69	Gas Catalytic Upgrading in a Two-Zone Fluidized Bed Reactor Coupled to a Cogasification Plant. Energy & Fuels, 2013, 27, 2835-2845.	5.1	12
70	Experimental and simulated solids mixing and bubbling behavior in a scaled two-section two-zone fluidized bed reactor. Chemical Engineering Science, 2016, 143, 240-255.	3.8	12
71	TAP studies of Ptâ€“Snâ€“K/Î³-Al2O3 catalyst for propane dehydrogenation. Chemical Engineering Journal, 2011, 171, 1317-1323.	12.7	11
72	Education of chemical engineering in Spain: A global picture. Education for Chemical Engineers, 2018, 24, 27-31.	4.8	11

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73	Counteracting SAPO-34 catalyst deactivation in MTO process using a two zone fluidized bed reactor: Reactor testing and process viability. Catalysis Today, 2021, 362, 155-161.	4.4	11
74	High purity hydrogen from coupled dry reforming and steam iron process with cobalt ferrites as oxygen carrier: Process improvement with the addition of NiAl 2 O 4 catalyst. Catalysis Today, 2017, 296, 163-169.	4.4	10
75	Effect of the use in circulating fluidized bed on the performance of a VPO catalyst: Characterization and transient studies. Chemical Engineering Journal, 2009, 147, 330-335.	12.7	9
76	Comparison of different methods for quantitative analysis of TAP pulse-response data for propane dehydrogenation over Ptâ€“Snâ€“K/Î³â€“Al2O3. Chemical Engineering Science, 2010, 65, 2417-2424.	3.8	9
77	Steam-iron process kinetic model using integral data regression. International Journal of Hydrogen Energy, 2012, 37, 6995-7004.	7.1	9
78	Experimental assessment of hydrogen separation from H2/CH4 mixtures by the â€œsteam-iron processâ€• in an interconnected circulating fluidized bed reactor. International Journal of Hydrogen Energy, 2014, 39, 14050-14060.	7.1	9
79	Behaviour of freeze-casting iron oxide for purifying hydrogen streams by steam-iron process. International Journal of Hydrogen Energy, 2016, 41, 19518-19524.	7.1	9
80	Gas permeation effect on the Two-Section Two-Zone Fluidized Bed Membrane Reactor (TS-TZFBMR) fluid dynamics: A CFD simulation study. Chemical Engineering Journal, 2016, 305, 201-211.	12.7	9
81	Methanol to Gasoline (MTG): Preparation, Characterization and Testing of HZSM-5 Zeolite-Based Catalysts to Be Used in a Fluidized Bed Reactor. Catalysts, 2022, 12, 134.	3.5	9
82	Improving CO2 methanation performance by distributed feeding in a Ni-Mn catalyst fixed bed reactor. Fuel, 2022, 321, 124075.	6.4	9
83	Kinetics under dynamic conditions of the oxidative dehydrogenation of butane with doped V/MgO. Catalysis Today, 2004, 91-92, 281-284.	4.4	8
84	High purity hydrogen from biogas via steam iron process: Preventing reactor clogging by interspersed coke combustions. Renewable Energy, 2020, 151, 619-626.	8.9	8
85	Doped iron oxide scaffolds with gradient porosity fabricated by freeze casting: Pore morphology prediction and processing parameters. Materials Science and Technology, 2020, 36, 1227-1237.	1.6	8
86	Modifications in the Composition of CuO/ZnO/Al2O3 Catalyst for the Synthesis of Methanol by CO2 Hydrogenation. Catalysts, 2021, 11, 774.	3.5	8
87	Comparison of Conventional and Two-Zone Fluidized Bed Reactors for Methanol to Olefins. Effect of Reaction Conditions and the Presence of Water in the Feed. Industrial & Engineering Chemistry Research, 2022, 61, 5757-5765.	3.7	8
88	Catalytic purification of H2-rich streams by CO-PROX over Pt-Co-Ce/Î³-Al2O3 in fluidized bed reactors. Catalysis Today, 2010, 157, 404-409.	4.4	7
89	Use of Î± -shapes for the measurement of 3D bubbles in fluidized beds from two-fluid model simulations. Powder Technology, 2016, 288, 409-421.	4.2	7
90	Pure hydrogen from lighter fractions of bio-oil by steam-iron process: Effect of composition of bio-oil, temperature and number of cycles. Fuel, 2017, 203, 452-459.	6.4	7

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91	The influence of the permeation regime on the activity of catalytic membranes for methane combustion. Journal of Catalysis, 2003, 218, 457-459.	6.2	6
92	Preparation of Mo/HZSM-5/Bentonite Catalyst for Methane Aromatization in a Fluidized Bed Reactor. International Journal of Chemical Reactor Engineering, 2017, 15, .	1.1	6
93	Hydrogen from bio-fuels by â€œsteam-ironâ€•process: Modelling and kinetics. International Journal of Hydrogen Energy, 2016, 41, 19349-19356.	7.1	5
94	MTO with SAPO-34 in a Fixed-Bed Reactor: Deactivation Profiles. Industrial & Engineering Chemistry Research, 2021, 60, 16162-16170.	3.7	5
95	Polymerâ€“Ceramic Composite Membranes for Water Removal in Membrane Reactors. Membranes, 2021, 11, 472.	3.0	4
96	Temperature and dilution effects on MTO process with a SAPO-34-based catalyst in fluidized bed reactor. Catalysis Today, 2022, 394-396, 219-224.	4.4	4
97	Influence of the catalyst pretreatment on the relative rates of the main and coking reactions during acetylene hydrogenation on a NiO/NiAl2O4 catalyst. Studies in Surface Science and Catalysis, 1994, 88, 555-560.	1.5	3
98	Methane Aromatization in a Fluidized Bed Reactor: Parametric Study. Frontiers in Energy Research, 2019, 7, .	2.3	3
99	Methanol to gasoline (MTG): Parametric study and validation of the process in a two-zone fluidized bed reactor (TZFBR). Journal of Industrial and Engineering Chemistry, 2022, 113, 189-195.	5.8	3
100	Deactivation of bulk iron oxide catalysts during methane combustion. Studies in Surface Science and Catalysis, 2001, 139, 487-494.	1.5	2
101	Reprint of: Education of chemical engineering in Spain: A global picture. Education for Chemical Engineers, 2019, 26, 2-7.	4.8	2
102	Catalytic Propane Dehydrogenation in a Two Zone Fluidized Bed Reactor with Hollow Fibre Palladium Membrane. Procedia Engineering, 2012, 44, 288-289.	1.2	0
103	PurificaciÃ³n de hidrÃ³geno a partir de gas de sÃntesis mediante el proceso "Steam-Iron". Jornadas De JÃ³venes Investigadores Del I3A, 0, 5, .	0.0	0
104	Estudio cinÃ©tico del reformado seco de biogÃ¡s. Jornadas De JÃ³venes Investigadores Del I3A, 0, 5, .	0.0	0
105	HidrÃ³lisis Ã¡cida de cÃ¡scaras de vaina de cacao CCN-51.. Jornadas De JÃ³venes Investigadores Del I3A, 0, 6, .	0.0	0
106	ProducciÃ³n de olefinas a partir de metanol. Jornadas De JÃ³venes Investigadores Del I3A, 0, 7, .	0.0	0
107	CinÃ©tica de la hidrÃ³lisis de la cÃ¡scara de la vaina de cacao CCN-51. Jornadas De JÃ³venes Investigadores Del I3A, 0, 7, .	0.0	0
108	ConversiÃ³n de CO2 en gas natural sintÃ©tico: anÃ¡lisis de eficiencia mediante el uso de catalizadores basados en sepiolita. Jornadas De JÃ³venes Investigadores Del I3A, 0, 8, .	0.0	0

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109	New Technologies for Light Alkane Upgrading. , 2005, , 149-171.		0