Luis M GandÃ-a

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/4289065/publications.pdf

Version: 2024-02-01

47006 36028 9,811 128 47 97 citations h-index g-index papers 132 132 132 8175 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Progress in Chemical-Looping Combustion and Reforming technologies. Progress in Energy and Combustion Science, 2012, 38, 215-282.	31.2	1,865
2	Hydrogen Production From Water Electrolysis: Current Status and Future Trends. Proceedings of the IEEE, 2012, 100, 410-426.	21.3	1,037
3	Mapping of the range of operational conditions for Cu-, Fe-, and Ni-based oxygen carriers in chemical-looping combustion. Chemical Engineering Science, 2007, 62, 533-549.	3.8	546
4	Recent Advances in the Synthesis and Catalytic Applications of Pillared Clays. Catalysis Reviews - Science and Engineering, 2000, 42, 145-212.	12.9	465
5	Kinetics of redox reactions of ilmenite for chemical-looping combustion. Chemical Engineering Science, 2011, 66, 689-702.	3.8	274
6	Synthesis of biodiesel with heterogeneous NaOH/alumina catalysts: Comparison with homogeneous NaOH. Chemical Engineering Journal, 2007, 134, 123-130.	12.7	249
7	Fruit and vegetable waste management: Conventional and emerging approaches. Journal of Environmental Management, 2020, 265, 110510.	7.8	235
8	Renewable Hydrogen Production:Â Performance of an Alkaline Water Electrolyzer Working under Emulated Wind Conditions. Energy & Emulated Wind Conditions. Energy & Emulated Wind Conditions. Energy & Emulated Wind Conditions.	5.1	177
9	Thermal performance of a commercial alkaline water electrolyzer: Experimental study and mathematical modeling. International Journal of Hydrogen Energy, 2008, 33, 7338-7354.	7.1	177
10	Reduction and oxidation kinetics of nickel-based oxygen-carriers for chemical-looping combustion and chemical-looping reforming. Chemical Engineering Journal, 2012, 188, 142-154.	12.7	163
11	Alkaline and alkaline-earth metals compounds as catalysts for the methanolysis of sunflower oil. Catalysis Today, 2008, 133-135, 305-313.	4.4	152
12	Methane Combustion in a 500 W _{th} Chemical-Looping Combustion System Using an Impregnated Ni-Based Oxygen Carrier. Energy & Energy & 2009, 23, 130-142.	5.1	134
13	Kinetics of the NaOH-catalyzed transesterification of sunflower oil with ethanol to produce biodiesel. Fuel Processing Technology, 2015, 129, 147-155.	7.2	118
14	Complete oxidation of acetone over manganese oxide catalysts supported on alumina- and zirconia-pillared clays. Applied Catalysis B: Environmental, 2002, 38, 295-307.	20.2	111
15	Influence of the preparation method and the nature of the support on the stability of nickel catalysts. Applied Catalysis A: General, 1994, 109, 167-179.	4.3	110
16	NiO/Al2O3 oxygen carriers for chemical-looping combustion prepared by impregnation and deposition–precipitation methods. Fuel, 2009, 88, 1016-1023.	6.4	108
17	Influence of the power supply on the energy efficiency of an alkaline water electrolyser. International Journal of Hydrogen Energy, 2009, 34, 3221-3233.	7.1	107
18	Influence of the surface adsorption–desorption processes on the ignition curves of volatile organic compounds (VOCs) complete oxidation over supported catalysts. Applied Catalysis B: Environmental, 2000, 26, 37-46.	20.2	106

#	Article	IF	CITATIONS
19	Heterogenization of the biodiesel synthesis catalysis: CaO and novel calcium compounds as transesterification catalysts. Chemical Engineering Research and Design, 2014, 92, 1519-1530.	5.6	96
20	Iron-modified ceria and Au/ceria catalysts for Total and Preferential Oxidation of CO (TOX and PROX). Catalysis Today, 2010, 157, 155-159.	4.4	94
21	Conversion of a commercial spark ignition engine to run on hydrogen: Performance comparison using hydrogen and gasoline. International Journal of Hydrogen Energy, 2010, 35, 1420-1429.	7.1	93
22	Fischer–Tropsch synthesis in microchannels. Chemical Engineering Journal, 2011, 167, 536-544.	12.7	91
23	Multiple response optimization of vegetable oils fatty acid composition to improve biodiesel physical properties. Bioresource Technology, 2011, 102, 7280-7288.	9.6	91
24	Outstanding performance of rehydrated Mg-Al hydrotalcites as heterogeneous methanolysis catalysts for the synthesis of biodiesel. Fuel, 2018, 211, 173-181.	6.4	89
25	Reactivity of a NiO/Al2O3 oxygen carrier prepared by impregnation for chemical-looping combustion. Fuel, 2010, 89, 3399-3409.	6.4	88
26	Valorization of selected fruit and vegetable wastes as bioactive compounds: Opportunities and challenges. Critical Reviews in Environmental Science and Technology, 2020, 50, 2061-2108.	12.8	86
27	Monitoring of biodiesel production: Simultaneous analysis of the transesterification products using size-exclusion chromatography. Chemical Engineering Journal, 2006, 122, 31-40.	12.7	80
28	Integration of methanol steam reforming and combustion in a microchannel reactor for H2 production: A CFD simulation study. Catalysis Today, 2009, 143, 25-31.	4.4	80
29	Methane steam reforming in a microchannel reactor for GTL intensification: A computational fluid dynamics simulation study. Chemical Engineering Journal, 2009, 154, 168-173.	12.7	80
30	Effect of Thermal Treatments on the Properties of Nickel and Cobalt Activated-Charcoal-Supported Catalysts. Journal of Catalysis, 1994, 145, 276-288.	6.2	68
31	Computational fluid dynamics study of heat transfer in a microchannel reactor for low-temperature Fischer–Tropsch synthesis. Chemical Engineering Journal, 2010, 160, 915-922.	12.7	68
32	Testing of a highly reactive impregnated Fe2O3/Al2O3 oxygen carrier for a SR–CLC system in a continuous CLC unit. Fuel Processing Technology, 2012, 96, 37-47.	7.2	67
33	Computational fluid dynamics simulation of ethanol steam reforming in catalytic wall microchannels. Chemical Engineering Journal, 2011, 167, 603-609.	12.7	66
34	Main factors controlling the texture of zirconia and alumina pillared clays. Microporous and Mesoporous Materials, 2000, 34, 115-125.	4.4	64
35	Effect of the temperature of calcination on the catalytic performance of manganese- and samarium-manganese-based oxides in the complete oxidation of acetone. Applied Catalysis A: General, 2004, 274, 229-235.	4.3	63
36	Experimental study of the performance and emission characteristics of an adapted commercial four-cylinder spark ignition engine running on hydrogen–methane mixtures. Applied Energy, 2014, 113, 1068-1076.	10.1	63

#	Article	IF	CITATIONS
37	Platinum catalysts supported on Al-pillared clays. Catalysis Today, 2001, 68, 41-51.	4.4	62
38	Synthesis of biodiesel from the methanolysis of sunflower oil using PURAL® Mg–Al hydrotalcites as catalyst precursors. Applied Catalysis B: Environmental, 2010, 100, 299-309.	20.2	62
39	Syngas production by means of biogas catalytic partial oxidation and dry reforming using Rh-based catalysts. Catalysis Today, 2018, 299, 280-288.	4.4	60
40	Application of a new hydrogenated aluminophosphate oxynitride (ALPON) as a catalytic support for the one-step synthesis of methyl isobutyl ketone from acetone. Applied Catalysis A: General, 1994, 114, L1-L7.	4.3	57
41	Effect of the thermal conductivity of metallic monoliths on methanol steam reforming. Catalysis Today, 2016, 273, 131-139.	4.4	55
42	Highly selective one-step formation of methyl isobutyl ketone from acetone with a magnesia supported nickel catalyst. Applied Catalysis A: General, 1993, 101, L1-L6.	4.3	54
43	Preparation and characterization of manganese oxide catalysts supported on alumina and zirconia-pillared clays. Applied Catalysis A: General, 2000, 196, 281-292.	4.3	54
44	Methyl ethyl ketone combustion over La-transition metal (Cr, Co, Ni, Mn) perovskites. Applied Catalysis B: Environmental, 2009, 92, 445-453.	20.2	54
45	VOCs combustion catalysed by platinum supported on manganese octahedral molecular sieves. Applied Catalysis B: Environmental, 2011, 110, 231-237.	20.2	54
46	Kinetic analysis and microstructured reactors modeling for the Fischer–Tropsch synthesis over a Co–Re/Al2O3 catalyst. Catalysis Today, 2013, 215, 103-111.	4.4	54
47	Structured catalysts based on Mg–Al hydrotalcite for the synthesis of biodiesel. Catalysis Today, 2013, 216, 211-219.	4.4	48
48	Gold supported on CuOx/CeO2 catalyst for the purification of hydrogen by the CO preferential oxidation reaction (PROX). Fuel, 2014, 118, 176-185.	6.4	46
49	Kinetics and selectivity of methyl-ethyl-ketone combustion in air over alumina-supported PdOx–MnOx catalysts. Journal of Catalysis, 2009, 261, 50-59.	6.2	45
50	Influence of vegetable oils fatty acid composition on reaction temperature and glycerides conversion to biodiesel during transesterification. Bioresource Technology, 2011, 102, 1044-1050.	9.6	44
51	On the structural changes of a saponite intercalated with various polycations upon thermal treatments. Applied Catalysis A: General, 2001, 217, 191-204.	4.3	43
52	A techno-economic and life cycle assessment for the production of green methanol from CO2: catalyst and process bottlenecks. Journal of Energy Chemistry, 2022, 68, 255-266.	12.9	43
53	Effect of the reduction temperature on the selectivity of the high temperature reaction of acetone and hydrogen over alumina and titania supported nickel and cobalt catalysts. Journal of Molecular Catalysis, 1994, 94, 347-367.	1.2	42
54	Preparation and characterisation of Mn- and Co-supported catalysts derived from Al-pillared clays and Mn- and Co-complexes. Applied Catalysis A: General, 2004, 267, 47-58.	4.3	42

#	Article	IF	CITATIONS
55	Preferential oxidation of CO (CO-PROX) over CuOx/CeO2 coated microchannel reactor. Catalysis Today, 2012, 180, 105-110.	4.4	42
56	Kinetic analysis and CFD simulations of the photocatalytic production of hydrogen in silicone microreactors from water-ethanol mixtures. Applied Catalysis B: Environmental, 2017, 203, 210-217.	20.2	42
57	Application of Eco-Design and Life Cycle Assessment Standards for Environmental Impact Reduction of an Industrial Product. Sustainability, 2017, 9, 1724.	3.2	42
58	Effects of various alkali–acid additives on the activity of a manganese oxide in the catalytic combustion of ketones. Applied Catalysis B: Environmental, 2001, 33, 1-8.	20.2	41
59	Microstructure and quantitative estimation of the micropore-size distribution of an alumina-pillared clay from nitrogen adsorption at 77 and carbon dioxide adsorption at 273. Chemical Engineering Science, 2003, 58, 3059-3075.	3.8	41
60	In Situ Synthesis of SERS-Active Au@POM Nanostructures in a Microfluidic Device for Real-Time Detection of Water Pollutants. ACS Applied Materials & Samp; Interfaces, 2020, 12, 36458-36467.	8.0	41
61	Pillaring of saponite with zirconium oligomers. Microporous and Mesoporous Materials, 1998, 24, 173-188.	4.4	40
62	Design and testing of a microchannel reactor for the PROX reaction. Chemical Engineering Journal, 2011, 167, 634-642.	12.7	40
63	Development of eggshell derived catalyst for transesterification of used cooking oil for biodiesel production. Asia-Pacific Journal of Chemical Engineering, 2013, 8, 742-748.	1.5	39
64	CFD analysis of the effects of the flow distribution and heat losses on the steam reforming of methanol in catalytic (Pd/ZnO) microreactors. Chemical Engineering Journal, 2014, 238, 37-44.	12.7	39
65	Selective CO removal over Au/CeFe and CeCu catalysts in microreactors studied through kinetic analysis and CFD simulations. Chemical Engineering Journal, 2011, 167, 588-596.	12.7	38
66	Selectivity in the High-Temperature Hydrogenation of Acetone with Silica-Supported Nickel and Cobalt Catalysts. Journal of Catalysis, 1995, 157, 461-471.	6.2	37
67	Characterization of combustion anomalies in a hydrogen-fueled 1.4â€L commercial spark-ignition engine by means of in-cylinder pressure, block-engine vibration, and acoustic measurements. Energy Conversion and Management, 2018, 172, 67-80.	9.2	35
68	Conversion of a gasoline engine-generator set to a bi-fuel (hydrogen/gasoline) electronic fuel-injected power unit. International Journal of Hydrogen Energy, 2011, 36, 13781-13792.	7.1	32
69	Influence of the O2/CO ratio and the presence of H2O and CO2 in the feed-stream during the preferential oxidation of CO (PROX) over a CuOx/CeO2-coated microchannel reactor. Catalysis Today, 2013, 203, 182-187.	4.4	31
70	Influence of the Ti precursor on the properties of Ti–pillared smectites. Clay Minerals, 2001, 36, 125-138.	0.6	29
71	Functionalization of 3D printed ABS filters with MOF for toxic gas removal. Journal of Industrial and Engineering Chemistry, 2020, 89, 194-203.	5.8	29
72	Conversion of a commercial gasoline vehicle to run bi-fuel (hydrogen-gasoline). International Journal of Hydrogen Energy, 2012, 37, 1781-1789.	7.1	28

#	Article	IF	CITATIONS
73	A CFD study on the effect of the characteristic dimension of catalytic wall microreactors. AICHE Journal, 2012, 58, 2785-2797.	3.6	27
74	Synthesis of biodiesel from sunflower oil with silicaâ€supported NaOH catalysts. Journal of Chemical Technology and Biotechnology, 2008, 83, 862-870.	3.2	26
75	Partial oxidation of methane to syngas using Co/Mg and Co/Mg-Al oxide supported catalysts. Catalysis Today, 2019, 333, 259-267.	4.4	26
76	Effect of the design variables on the energy performance and size parameters of a heat transformer based on the system acetone/H2/2-propanol. International Journal of Energy Research, 1992, 16, 851-864.	4.5	25
77	Non-aggressive pillaring of clays with zirconium acetate. Comparison with alumina pillared clays. Applied Catalysis A: General, 1999, 183, 23-33.	4.3	25
78	Syngas production via catalytic oxidative steam reforming of glycerol using a Co/Al coprecipitated catalyst and different bed fillers. Fuel Processing Technology, 2019, 189, 120-133.	7.2	24
79	DRIFTS study of methanol adsorption on Mg–Al hydrotalcite catalysts for the transesterification of vegetable oils. Catalysis Communications, 2012, 17, 189-193.	3.3	23
80	Relevance of plant design on CLC process performance using a Cu-based oxygen carrier. Fuel Processing Technology, 2018, 171, 78-88.	7.2	23
81	Comparative performance of coke oven gas, hydrogen and methane in a spark ignition engine. International Journal of Hydrogen Energy, 2021, 46, 17572-17586.	7.1	23
82	A new strong basic high surface area catalyst: The nitrided aluminophosphate: AlPON and Ni-AlPON. Studies in Surface Science and Catalysis, 1995, , 381-389.	1.5	22
83	Preparation and characterisation of vanadium catalysts supported over alumina-pillared clays. Catalysis Today, 2003, 78, 181-190.	4.4	22
84	Life cycle assessment of natural gas fuelled power plants based on chemical looping combustion technology. Energy Conversion and Management, 2019, 198, 111856.	9.2	22
85	Monitoring of the methanolysis reaction for biodiesel production by off-line and on-line refractive index and speed of sound measurements. Fuel, 2014, 121, 157-164.	6.4	19
86	Catalytic Performance of Bulk and Al2O3-Supported Molybdenum Oxide for the Production of Biodiesel from Oil with High Free Fatty Acids Content. Catalysts, 2020, 10, 158.	3.5	19
87	Oxidative steam reforming of glycerol. A review. Renewable and Sustainable Energy Reviews, 2021, 148, 111299.	16.4	19
88	Issues concerning the use of renewable Ca-based solids as transesterification catalysts. Fuel, 2015, 158, 558-564.	6.4	18
89	Renewable Hydrogen Energy. , 2013, , 1-17.		17
90	Preferential oxidation of CO over Au/CuOx–CeO2 catalyst in microstructured reactors studied through CFD simulations. Catalysis Today, 2013, 216, 283-291.	4.4	15

#	Article	IF	Citations
91	Ecodesign of PVC packing tape using life cycle assessment. International Journal of Life Cycle Assessment, 2014, 19, 218-230.	4.7	15
92	Metallic monolithic catalysts based on calcium and cerium for the production of biodiesel. Fuel, 2016, 182, 668-676.	6.4	15
93	Environmental Evaluation of the Improvements for Industrial Scaling of Zeolite Membrane Manufacturing by Life Cycle Assessment. ACS Sustainable Chemistry and Engineering, 2018, 6, 15773-15780.	6.7	15
94	Innovative catalyst integration on transparent silicone microreactors for photocatalytic applications. Catalysis Today, 2022, 383, 164-172.	4.4	15
95	Kinetics of Methyl Ethyl Ketone Combustion in Air at Low Concentrations over a Commercial Pt/Al2O3Catalyst. Industrial & Engineering Chemistry Research, 2007, 46, 9037-9044.	3.7	12
96	Effect of oxygen addition, reaction temperature and thermal treatments on syngas production from biogas combined reforming using Rh/alumina catalysts. Journal of Industrial and Engineering Chemistry, 2019, 80, 217-226.	5.8	12
97	Production of Aromatic Compounds by Catalytic Depolymerization of Technical and Downstream Biorefinery Lignins. Biomolecules, 2020, 10, 1338.	4.0	12
98	Renewable Hydrocarbon Production from Waste Cottonseed Oil Pyrolysis and Catalytic Upgrading of Vapors with Mo-Co and Mo-Ni Catalysts Supported on \hat{l}^3 -Al2O3. Nanomaterials, 2021, 11, 1659.	4.1	12
99	Extraction of Phenolic Compounds from Populus Salicaceae Bark. Biomolecules, 2022, 12, 539.	4.0	12
100	Dehydrogenation of Ethylbenzene on Alumina–Chromia-Pillared Saponites. Catalysis Letters, 2002, 78, 99-103.	2.6	11
101	New alumina/aluminium monoliths for the catalytic elimination of VOCs. Studies in Surface Science and Catalysis, 2000, 130, 593-598.	1.5	10
102	Corrections to "Hydrogen Production From Water Electrolysis: Current Status and Future Trends― [Feb 12 410-426]. Proceedings of the IEEE, 2012, 100, 811-811.	21.3	10
103	Study of the high temperature reaction of acetone and hydrogen over zinc oxide-supported Ni and Co catalysts. Reaction Kinetics and Catalysis Letters, 1994, 53, 261-268.	0.6	9
104	Activity and stability of single and perovskite-type manganese and cobalt oxides in the catalytic combustion of acetone. Studies in Surface Science and Catalysis, 2000, 130, 2153-2158.	1.5	9
105	Dehydrogenation of ethylbenzene on alumina-pillared Fe-rich saponites. Catalysis Letters, 2005, 101, 229-234.	2.6	9
106	Mesoporous Sn-In-MCM-41 Catalysts for the Selective Sugar Conversion to Methyl Lactate and Comparative Life Cycle Assessment with the Biochemical Process. ACS Sustainable Chemistry and Engineering, 2022, 10, 2868-2880.	6.7	9
107	Unsupported and supported manganese oxides used in the catalytic combustion of methyl-ethyl-ketone. Studies in Surface Science and Catalysis, 2000, 143, 527-535.	1.5	8
108	Three-Dimensional Printing of Acrylonitrile Butadiene Styrene Microreactors for Photocatalytic Applications. Industrial & Engineering Chemistry Research, 2020, 59, 20686-20692.	3.7	8

#	Article	IF	Citations
109	Performance comparison between washcoated and packed-bed monolithic reactors for the low-temperature Fischer-Tropsch synthesis. Chemical Engineering Journal, 2021, 425, 130424.	12.7	7
110	Influence of the Nickel Reduction Degree on the Toxicity of H2S and Thiophene over a Ni/SiO2Catalyst. Journal of Catalysis, 1996, 162, 349-358.	6.2	6
111	Texture evolution of nickel and cobalt activated-charcoal-supported catalysts during thermal treatments at increasing temperatures. Journal of Physics and Chemistry of Solids, 1997, 58, 1079-1089.	4.0	6
112	Preparation and characterization of manganese- and samarium-manganese-alumina pillared montmorillonites. Reaction Kinetics and Catalysis Letters, 1998, 64, 145-151.	0.6	6
113	Hydrotalcites as Catalysts and Catalysts Precursors for the Synthesis of Biodiesel. Key Engineering Materials, 0, 571, 1-26.	0.4	6
114	Computational Fluid Dynamics as a Tool for Designing Hydrogen Energy Technologies., 2013,, 401-435.		5
115	Iron-based oxygen carrier particles produced from micronized size minerals or industrial wastes. Powder Technology, 2022, 396, 637-647.	4.2	5
116	Entropy of chemical processes versus numerical representability of orderings. Journal of Mathematical Chemistry, 2016, 54, 503-526.	1.5	4
117	Oak wood extracts applied to the grapevine. An alternative to obtain quality Garnacha wines. Food Research International, 2018, 105, 628-636.	6.2	4
118	Comparative study of the textural properties of alumina-pillared saponites synthesised from the intercalation with various aluminium oligomers. Studies in Surface Science and Catalysis, 2002, 144, 585-592.	1.5	3
119	Acoustic and psychoacoustic levels from an internal combustion engine fueled by hydrogen vs. gasoline. Fuel, 2022, 317, 123505.	6.4	3
120	Hydrogen Hazards and Risks Analysis through CFD Simulations. , 2013, , 437-452.		2
121	Pseudo-Homogeneous and Heterogeneous Kinetic Models of the NaOH-Catalyzed Methanolysis Reaction for Biodiesel Production. Energies, 2021, 14, 4192.	3.1	2
122	Thiophene hydrogenolysis using temperature-programmed surface reaction as a tool to study poison toxicity. Applied Catalysis A: General, 1995, 132, L1-L7.	4.3	1
123	Catalytic performance in the complete acetone oxidation of manganese and cobalt oxides supported on alumina and silicaâz*Financial support by the Ministry of Science and Technology (MAT2000-0985) and the Department of Education and Culture of the Navarre Government (Orden Foral 143/1998) is gratefully acknowledged Studies in Surface Science and Catalysis. 2000 517-525.	1.5	1
124	CHARACTERIZATION OF THE POROUS STRUCTURE OF AN ALUMINA-PILLARED CLAY BY MEANS OF NITROGEN ADSORPTION AND IMMERSION CALORIMETRY. Chemical Engineering Communications, 2005, 192, 827-837.	2.6	1
125	Factores que controlan las propiedades texturales de arcillas intercaladas con disoluciones de circonio y aluminio. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2000, 39, 530-534.	1.9	1
126	Reaction Monitoring by Ultrasounds in a Pseudohomogeneous Medium: Triglyceride Ethanolysis for Biodiesel Production. Processes, 2022, 10, 12.	2.8	1

Luis M GandÃa

#	Article	IF	CITATIONS
127	Application of a Modeling Tool to Describe Fly Ash Generation, Composition, and Melting Behavior in a Wheat Straw Fired Commercial Power Plant. Processes, 2020, 8, 1510.	2.8	O
128	Editorial for Special Issue "Hydrogen Production and Storage― Reactions, 2022, 3, 87-88.	2.1	0