Ignacio V MeliÃ¡n-Cabrera

List of Publications by Year
in descending order

79 papers	3,708 citations	172207 29 h-index	128067 60 g-index
87 all docs	87 docs citations	87 times ranked	4274 citing authors

#	Article	IF	Citations
1	Caprolactam from Renewable Resources: Catalytic Conversion of 5â€Hydroxymethylfurfural into Caprolactone. Angewandte Chemie - International Edition, 2011, 50, 7083-7087.	7.2	409
2	Production of hydrogen from methanol over Cu/ZnO catalysts promoted by ZrO2 and Al2O3. Journal of Catalysis, 2003, 219, 389-403.	3.1	364
3	An efficient one pot conversion of glycerol to lactic acid using bimetallic gold-platinum catalysts on a nanocrystalline CeO2 support. Applied Catalysis B: Environmental, 2014, 147, 92-100.	10.8	178
4	Synergy of FexCe1â^'xO2 mixed oxides for N2O decomposition. Journal of Catalysis, 2006, 239, 340-346.	3.1	177
5	Catalyst studies on the hydrotreatment of fast pyrolysis oil. Applied Catalysis B: Environmental, 2010, 99, 298-306.	10.8	162
6	Insights in the hydrotreatment of fast pyrolysis oil using a ruthenium on carbon catalyst. Energy and Environmental Science, 2010, 3, 962.	15.6	149
7	Catalytic hydrotreatment of fast pyrolysis oil using bimetallic Niâ€"Cu catalysts on various supports. Applied Catalysis A: General, 2012, 449, 121-130.	2.2	121
8	Reverse Topotactic Transformation of a Cu?Zn?Al Catalyst during Wet Pd Impregnation: Relevance for the Performance in Methanol Synthesis from CO2/H2 Mixtures. Journal of Catalysis, 2002, 210, 273-284.	3.1	119
9	CO2 absorption into aqueous amine blended solutions containing monoethanolamine (MEA), N,N-dimethylethanolamine (DMEA), N,N-diethylethanolamine (DEEA) and 2-amino-2-methyl-1-propanol (AMP) for post-combustion capture processes. Chemical Engineering Science, 2015, 126, 446-454.	1.9	119
10	Pd-Modified Cu?Zn Catalysts for Methanol Synthesis from CO2/H2 Mixtures: Catalytic Structures and Performance. Journal of Catalysis, 2002, 210, 285-294.	3.1	116
11	Biomass to Fuels. Chemical Engineering Research and Design, 2007, 85, 466-472.	2.7	112
12	Utilizing full-exchange capacity of zeolites by alkaline leaching: Preparation of Fe-ZSM5 and application in N2O decomposition. Journal of Catalysis, 2006, 238, 250-259.	3.1	108
13	From 5-Hydroxymethylfurfural (HMF) to Polymer Precursors: Catalyst Screening Studies on the Conversion of 1,2,6-hexanetriol to 1,6-hexanediol. Topics in Catalysis, 2012, 55, 612-619.	1.3	100
14	Production of hydrogen from methanol over binary Cu/ZnO catalysts. Applied Catalysis A: General, 2003, 253, 201-211.	2.2	98
15	Acidity and accessibility studies of desilicated ZSM-5 zeolites in terms of their effectiveness as catalysts in acid-catalyzed cracking processes. Catalysis Science and Technology, 2017, 7, 858-873.	2.1	78
16	Interfacial Properties of an Ir/TiO2 System and Their Relevance in Crotonaldehyde Hydrogenation. Journal of Catalysis, 2002, 208, 229-237.	3.1	67
17	Catalyst studies on the ring opening of tetrahydrofuranâ€"dimethanol to 1,2,6-hexanetriol. Catalysis Today, 2013, 210, 106-116.	2.2	67
18	CO2 hydrogenation over Pd-modified methanol synthesis catalysts. Catalysis Today, 1998, 45, 251-256.	2.2	60

#	Article	IF	Citations
19	Title is missing!. Catalysis Letters, 2002, 79, 165-170.	1.4	56
20	Recovering waste plastics using shape-selective nano-scale reactors as catalysts. Nature Sustainability, 2019, 2, 39-42.	11.5	53
21	Highly active and stable ion-exchanged Feâ€“Ferrierite catalyst for N2O decomposition under nitric acid tail gas conditions. Catalysis Communications, 2005, 6, 301-305.	1.6	49
22	Thermal decomposition of a hydrotalcite-containing Cuâ€“Znâ€“Al precursor: thermal methods combined with an in situ DRIFT study. Physical Chemistry Chemical Physics, 2002, 4, 3122-3127.	1.3	47
23	Liquid phase hydrogenation of crotonaldehyde over bimetallic Rh-Sn/SiO2 catalysts. Applied Catalysis A: General, 2002, 233, 183-196.	2.2	47
24	Baseâ€Free, Oneâ€Pot Chemocatalytic Conversion of Glycerol to Methyl Lactate using Supported Gold Catalysts. ChemSusChem, 2014, 7, 1140-1147.	3.6	42
25	Stabilization of Self-Assembled Alumina Mesophases. Chemistry of Materials, 2013, 25, 848-855.	3.2	40
26	Synergy between metals in bimetallic zeolite supported catalyst for NO-promoted N2O decomposition. Catalysis Letters, 2005, 99, 41-44.	1.4	37
27	Pd-modified beta zeolite for modulated hydro-cracking of low-density polyethylene into a paraffinic-rich hydrocarbon fuel. Applied Catalysis B: Environmental, 2020, 277, 119070.	10.8	37
28	One-pot catalyst preparation: combined detemplating and Fe ion-exchange of BEA through Fenton's chemistry. Chemical Communications, 2005, , 2178-2180.	2.2	30
29	Exploratory Catalyst Screening Studies on the Base Free Conversion of Glycerol to Lactic Acid and Glyceric Acid in Water Using Bimetallic Auâ€“Pt Nanoparticles on Acidic Zeolites. Topics in Catalysis, 2014, 57, 1445-1453.	1.3	29
30	Making coke a more efficient catalyst in the oxidative dehydrogenation of ethylbenzene using wide-pore transitional aluminas. Journal of Molecular Catalysis A, 2014, 381, 179-187.	4.8	29
31	Oxidative dehydrogenation of ethylbenzene to styrene over alumina: effect of calcination. Catalysis Science and Technology, 2013, 3, 519-526.	2.1	28
32	Innovations in the synthesis of Fe-(exchanged)-zeolites. Catalysis Today, 2005, 110, 255-263.	2.2	27
33	Condensation-Enhanced Self-Assembly as a Route to High Surface Area Î±-Aluminas. Chemistry of Materials, 2013, 25, 3971-3978.	3.2	25
34	Catalytic Materials: Concepts to Understand the Pathway to Implementation. Industrial & Engineering Chemistry Research, 2021, 60, 18545-18559.	1.8	25
35	On the stability of conventional and nano-structured carbon-based catalysts in the oxidative dehydrogenation of ethylbenzene under industrially relevant conditions. Carbon, 2014, 77, 329-340.	5.4	24
36	Operando Study Reveals the Superior Cracking Activity and Stability of Hierarchical ZSMâ€5 Catalyst for the Cracking of Lowâ€Density Polyethylene. ChemSusChem, 2019, 12, 633-638.	3.6	23

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37	The oxidative esterification of glycerol to methyl glycerate in methanol using gold on oxidic supports: an insight in product selectivity. Green Chemistry, 2012, 14, 2031.	4.6	21
38	Tail gas catalyzed N2O decomposition over Fe-beta zeolite. On the promoting role of framework connected AlO6 sites in the vicinity of Fe by controlled dealumination during exchange. Applied Catalysis B: Environmental, 2017, 203, 218-226.	10.8	21
39	Alkaline leaching for synthesis of improved Fe-ZSM5 catalysts. Catalysis Communications, 2006, 7, 100-103.	1.6	20
40	Advanced oxidation process for coke removal: A systematic study of hydrogen peroxide and OH-derived-Fenton radicals of a fouled zeolite. Applied Catalysis A: General, 2018, 562, 215-222.	2.2	20
41	Application of staged O2 feeding in the oxidative dehydrogenation of ethylbenzene to styrene over Al2O3 and P2O5/SiO2 catalysts. Applied Catalysis A: General, 2014, 476, 204-214.	2.2	18
42	Title is missing!. Catalysis Letters, 2002, 84, 153-161.	1.4	17
43	Detemplation of soft mesoporous silica nanoparticles with structural preservation. Journal of Materials Chemistry A, 2013, 1, 4747.	5.2	17
44	On the hydrothermal stability of MCM-41. Evidence of capillary tension-induced effects. Microporous and Mesoporous Materials, 2016, 220, 88-98.	2.2	17
45	Thermal detemplation of SBA-15 mesophases. Effect of the activation protocol on the framework contraction. Microporous and Mesoporous Materials, 2013, 176, 103-111.	2.2	14
46	Modifying the Hierarchical Porosity of SBA-15 via Mild-Detemplation Followed by Secondary Treatments. Journal of Physical Chemistry C, 2014, 118, 28689-28698.	1.5	13
47	Oxidation of o-xylene on mesoporous Ti-phosphate-supported VOx catalysts and promoter effect of K+ on selectivity. Catalysis Today, 2005, 99, 179-186.	2.2	12
48	Room temperature detemplation of zeolites through H2O2-mediated oxidation. Chemical Communications, 2005, , 2744.	2.2	12
49	Ion exchanged Fe-FER through H2O2-assisted decomplexation of organic salts. Chemical Communications, 2005, , 1525-1527.	2.2	11
50	Coke formation in the oxidative dehydrogenation of ethylbenzene to styrene by TEOM. Catalysis Science and Technology, 2014, 4, 3879-3890.	2.1	11
51	On the thermal stabilization of carbon-supported SiO2 catalysts by phosphorus: Evaluation in the oxidative dehydrogenation of ethylbenzene to styrene and a comparison with relevant catalysts. Applied Catalysis A: General, 2016, 514, 173-181.	2.2	11
52	The Brunauerâ€"Emmettâ€"Teller model on alumino-silicate mesoporous materials. How far is it from the true surface area?. Microporous and Mesoporous Materials, 2021, 319, 111065.	2.2	11
53	On the drug adsorption capacity of SBA-15 obtained from various detemplation protocols. Materials Letters, 2014, 131, 186-189.	1.3	10
54	Direct activation of microcrystalline zeolites. Microporous and Mesoporous Materials, 2013, 171, 208-214.	2.2	9

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55	An <i>in situ</i> reactivation study reveals the supreme stability of Î³-alumina for the oxidative dehydrogenation of ethylbenzene to styrene. Catalysis Science and Technology, 2018, 8, 3733-3736.	2.1	9
56	Overcoming the Engineering Constraints for Scaling-Up the State-of-the-Art Catalyst for Tail-Gas N₂O Decomposition. Industrial & Engineering Chemistry Research, 2018, 57, 939-945.	1.8	8
57	Fenton chemistry-based detemplation of an industrially relevant microcrystalline beta zeolite. Optimization and scaling-up studies. Microporous and Mesoporous Materials, 2015, 206, 58-66.	2.2	7
58	Silica promoted self-assembled mesoporous aluminas. Impact of the silica precursor on the structural, textural and acidic properties. Catalysis Today, 2015, 250, 115-122.	2.2	7
59	Improved Catalytic Technology for Waste Plastic Processing: Toward Novel Remediation and Emission Control Measures. ACS Sustainable Chemistry and Engineering, 2019, 7, 129-133.	3.2	7
60	Bulk and Surface Structures of Palladium-Modified Copperâˆ'Zinc OxidesexHydroxycarbonate Precursors. Chemistry of Materials, 2002, 14, 1863-1872.	3.2	6
61	A hydrothermally stable transition alumina by condensation-enhanced self-assembly and pyrolysis crystallization: application in the steam reforming of methane. CrystEngComm, 2014, 16, 6775-6783.	1.3	6
62	Hot-spots during the calcination of MCM-41: A SAXS comparative analysis of a soft mesophase. Materials Letters, 2014, 118, 51-54.	1.3	6
63	On the geometric trajectories of pores during the thermal sintering of relevant catalyst supports. Scripta Materialia, 2021, 194, 113679.	2.6	6
64	Fenton detemplation of ordered (meso)porous materials. Studies in Surface Science and Catalysis, 2007, 170, 648-654.	1.5	5
65	Protocol optimization for the mild detemplation of mesoporous silica nanoparticles resulting in enhanced texture and colloidal stability. Microporous and Mesoporous Materials, 2016, 220, 110-119.	2.2	5
66	Novel reactivation allows effective reuse of NafionÂ® super-acid nano-catalyst. Applied Catalysis A: General, 2019, 569, 134-140.	2.2	5
67	Process Intensification of Mesoporous Materialâ€™s Synthesis by Microwave-Assisted Surfactant Removal. ACS Sustainable Chemistry and Engineering, 2020, 8, 16814-16822.	3.2	5
68	A note on the acid strength of porous materials assessed by thermal methods. Microporous and Mesoporous Materials, 2021, 310, 110638.	2.2	5
69	Solvent Additive-Induced Deactivation of the Cuâ€"ZnO(Al2O3)-Catalyzed Î³-Butyrolactone Hydrogenolysis: A Rare Deactivation Process. Industrial & Engineering Chemistry Research, 2021, 60, 15999-16010.	1.8	4
70	Temperature control in DRIFT cells used for in situ and operando studies: where do we stand today?. Physical Chemistry Chemical Physics, 2020, 22, 26088-26092.	1.3	3
71	Mild Upgrading of Bioâ€Crude Pyrolysis Oil: A Concept Based on Bioâ€Based Alcohols with Selective Water Adsorption. Energy Technology, 2018, 6, 1209-1213.	1.8	2
72	Reactant Additive-Triggered Deactivation of Pd/Î³-Alumina-Catalyzed Hydrogenation Reactions. A Reactivity and Adsorption Study. Industrial & Engineering Chemistry Research, 2020, 59, 17762-17768.	1.8	2

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73	Tooling up Heterogeneous Catalysis through Fentonâ€™s Chemistry. Detemplation and functionalization of micro- And mesoporous materials.. Studies in Surface Science and Catalysis, 2006, 162, 37-46.	1.5	1
74	Thermal stability of porous sol-gel phosphosilicates and their surface area stabilisation by lanthanum addition. Materials Letters, 2016, 178, 91-94.	1.3	1
75	Fundamental Catalysis and Engineering Challenges in Energy Harvesting. Industrial & Engineering Chemistry Research, 2019, 58, 17615-17620.	1.8	1
76	Complex Crystallization Kinetics of a Mgâ€“Al Hydrotalcite and Their Practical Implications from the Process Point of View. Industrial & Engineering Chemistry Research, 2021, 60, 11848-11854.	1.8	1
77	Corrigendum to â€œOn the drug adsorption capacity of SBA-15 obtained from various detemplation protocolsâ€•[Mater. Lett. 131 (2014) 186â€“189]. Materials Letters, 2022, 309, 131425.	1.3	0
78	Selectivity-induced conversion model explaining the coke-catalysed O2-mediated styrene synthesis over wide-pore aluminas. Molecular Catalysis, 2022, 524, 112301.	1.0	0
79	A Simplified Kinetic Model for the Enantioselective Hydrogenation of 1-Phenyl-1,2-Propanedione over Ir/TiO₂in the Presence of a Chiral Additive. Industrial & Engineering Chemistry Research, 2022, 61, 6052-6056.	1.8	0