

# Ignacio V Melián-Cabrera

## List of Publications by Year in descending order

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79  
papers

3,708  
citations

172457

29  
h-index

128289

60  
g-index

87  
all docs

87  
docs citations

87  
times ranked

4274  
citing authors

#	ARTICLE	IF	CITATIONS
1	Corrigendum to “On the drug adsorption capacity of SBA-15 obtained from various demetallation protocols” [Mater. Lett. 131 (2014) 186–189]. Materials Letters, 2022, 309, 131425.	2.6	0
2	Selectivity-induced conversion model explaining the coke-catalysed O <sub>2</sub> -mediated styrene synthesis over wide-pore aluminas. Molecular Catalysis, 2022, 524, 112301.	2.0	0
3	A Simplified Kinetic Model for the Enantioselective Hydrogenation of 1-Phenyl-1,2-Propanedione over Ir/TiO <sub>2</sub> in the Presence of a Chiral Additive. Industrial & Engineering Chemistry Research, 2022, 61, 6052-6056.	3.7	0
4	A note on the acid strength of porous materials assessed by thermal methods. Microporous and Mesoporous Materials, 2021, 310, 110638.	4.4	5
5	On the geometric trajectories of pores during the thermal sintering of relevant catalyst supports. Scripta Materialia, 2021, 194, 113679.	5.2	6
6	The Brunauer–Emmett–Teller model on alumino-silicate mesoporous materials. How far is it from the true surface area?. Microporous and Mesoporous Materials, 2021, 319, 111065.	4.4	11
7	Complex Crystallization Kinetics of a Mg–Al Hydrotalcite and Their Practical Implications from the Process Point of View. Industrial & Engineering Chemistry Research, 2021, 60, 11848-11854.	3.7	1
8	Catalytic Materials: Concepts to Understand the Pathway to Implementation. Industrial & Engineering Chemistry Research, 2021, 60, 18545-18559.	3.7	25
9	Solvent Additive-Induced Deactivation of the Cu–ZnO(Al <sub>2</sub> O <sub>3</sub> )-Catalyzed $\gamma$ -Butyrolactone Hydrogenolysis: A Rare Deactivation Process. Industrial & Engineering Chemistry Research, 2021, 60, 15999-16010.	3.7	4
10	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.	2.8	3
11	Process Intensification of Mesoporous Material™s Synthesis by Microwave-Assisted Surfactant Removal. ACS Sustainable Chemistry and Engineering, 2020, 8, 16814-16822.	6.7	5
12	Reactant Additive-Triggered Deactivation of Pd/ $\gamma$ -Alumina-Catalyzed Hydrogenation Reactions. A Reactivity and Adsorption Study. Industrial & Engineering Chemistry Research, 2020, 59, 17762-17768.	3.7	2
13	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.	20.2	37
14	Fundamental Catalysis and Engineering Challenges in Energy Harvesting. Industrial & Engineering Chemistry Research, 2019, 58, 17615-17620.	3.7	1
15	Improved Catalytic Technology for Waste Plastic Processing: Toward Novel Remediation and Emission Control Measures. ACS Sustainable Chemistry and Engineering, 2019, 7, 129-133.	6.7	7
16	Recovering waste plastics using shape-selective nano-scale reactors as catalysts. Nature Sustainability, 2019, 2, 39-42.	23.7	53
17	Novel reactivation allows effective reuse of Nafion® super-acid nano-catalyst. Applied Catalysis A: General, 2019, 569, 134-140.	4.3	5
18	Operando Study Reveals the Superior Cracking Activity and Stability of Hierarchical ZSM-5 Catalyst for the Cracking of Low-Density Polyethylene. ChemSusChem, 2019, 12, 633-638.	6.8	23

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19	Mild Upgrading of Bio-Crude Pyrolysis Oil: A Concept Based on Bio-Based Alcohols with Selective Water Adsorption. <i>Energy Technology</i> , 2018, 6, 1209-1213.	3.8	2
20	Overcoming the Engineering Constraints for Scaling-Up the State-of-the-Art Catalyst for Tail-Gas N <sub>2</sub> O Decomposition. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 939-945.	3.7	8
21	An <i>in situ</i> reactivation study reveals the supreme stability of $\gamma$ -alumina for the oxidative dehydrogenation of ethylbenzene to styrene. <i>Catalysis Science and Technology</i> , 2018, 8, 3733-3736.	4.1	9
22	Advanced oxidation process for coke removal: A systematic study of hydrogen peroxide and OH-derived-Fenton radicals of a fouled zeolite. <i>Applied Catalysis A: General</i> , 2018, 562, 215-222.	4.3	20
23	Acidity and accessibility studies of desilicated ZSM-5 zeolites in terms of their effectiveness as catalysts in acid-catalyzed cracking processes. <i>Catalysis Science and Technology</i> , 2017, 7, 858-873.	4.1	78
24	Tail gas catalyzed N <sub>2</sub> O decomposition over Fe-beta zeolite. On the promoting role of framework connected AlO <sub>6</sub> sites in the vicinity of Fe by controlled dealumination during exchange. <i>Applied Catalysis B: Environmental</i> , 2017, 203, 218-226.	20.2	21
25	Thermal stability of porous sol-gel phosphosilicates and their surface area stabilisation by lanthanum addition. <i>Materials Letters</i> , 2016, 178, 91-94.	2.6	1
26	On the thermal stabilization of carbon-supported SiO <sub>2</sub> catalysts by phosphorus: Evaluation in the oxidative dehydrogenation of ethylbenzene to styrene and a comparison with relevant catalysts. <i>Applied Catalysis A: General</i> , 2016, 514, 173-181.	4.3	11
27	On the hydrothermal stability of MCM-41. Evidence of capillary tension-induced effects. <i>Microporous and Mesoporous Materials</i> , 2016, 220, 88-98.	4.4	17
28	Protocol optimization for the mild detemplation of mesoporous silica nanoparticles resulting in enhanced texture and colloidal stability. <i>Microporous and Mesoporous Materials</i> , 2016, 220, 110-119.	4.4	5
29	Fenton chemistry-based detemplation of an industrially relevant microcrystalline beta zeolite. Optimization and scaling-up studies. <i>Microporous and Mesoporous Materials</i> , 2015, 206, 58-66.	4.4	7
30	Silica promoted self-assembled mesoporous aluminas. Impact of the silica precursor on the structural, textural and acidic properties. <i>Catalysis Today</i> , 2015, 250, 115-122.	4.4	7
31	CO <sub>2</sub> 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. <i>Chemical Engineering Science</i> , 2015, 126, 446-454.	3.8	119
32	Modifying the Hierarchical Porosity of SBA-15 via Mild-Detemplation Followed by Secondary Treatments. <i>Journal of Physical Chemistry C</i> , 2014, 118, 28689-28698.	3.1	13
33	An efficient one pot conversion of glycerol to lactic acid using bimetallic gold-platinum catalysts on a nanocrystalline CeO <sub>2</sub> support. <i>Applied Catalysis B: Environmental</i> , 2014, 147, 92-100.	20.2	178
34	Application of staged O <sub>2</sub> feeding in the oxidative dehydrogenation of ethylbenzene to styrene over Al <sub>2</sub> O <sub>3</sub> and P <sub>2</sub> O <sub>5</sub> /SiO <sub>2</sub> catalysts. <i>Applied Catalysis A: General</i> , 2014, 476, 204-214.	4.3	18
35	Base-Free, One-Pot Chemocatalytic Conversion of Glycerol to Methyl Lactate using Supported Gold Catalysts. <i>ChemSusChem</i> , 2014, 7, 1140-1147.	6.8	42
36	A hydrothermally stable transition alumina by condensation-enhanced self-assembly and pyrolysis crystallization: application in the steam reforming of methane. <i>CrystEngComm</i> , 2014, 16, 6775-6783.	2.6	6

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37	Coke formation in the oxidative dehydrogenation of ethylbenzene to styrene by TEOM. <i>Catalysis Science and Technology</i> , 2014, 4, 3879-3890.	4.1	11
38	Exploratory Catalyst Screening Studies on the Base Free Conversion of Glycerol to Lactic Acid and Glyceric Acid in Water Using Bimetallic Au-Pt Nanoparticles on Acidic Zeolites. <i>Topics in Catalysis</i> , 2014, 57, 1445-1453.	2.8	29
39	Hot-spots during the calcination of MCM-41: A SAXS comparative analysis of a soft mesophase. <i>Materials Letters</i> , 2014, 118, 51-54.	2.6	6
40	Making coke a more efficient catalyst in the oxidative dehydrogenation of ethylbenzene using wide-pore transitional aluminas. <i>Journal of Molecular Catalysis A</i> , 2014, 381, 179-187.	4.8	29
41	On the drug adsorption capacity of SBA-15 obtained from various detemplation protocols. <i>Materials Letters</i> , 2014, 131, 186-189.	2.6	10
42	On the stability of conventional and nano-structured carbon-based catalysts in the oxidative dehydrogenation of ethylbenzene under industrially relevant conditions. <i>Carbon</i> , 2014, 77, 329-340.	10.3	24
43	Thermal detemplation of SBA-15 mesophases. Effect of the activation protocol on the framework contraction. <i>Microporous and Mesoporous Materials</i> , 2013, 176, 103-111.	4.4	14
44	Detemplation of soft mesoporous silica nanoparticles with structural preservation. <i>Journal of Materials Chemistry A</i> , 2013, 1, 4747.	10.3	17
45	Condensation-Enhanced Self-Assembly as a Route to High Surface Area $\gamma$ -Aluminas. <i>Chemistry of Materials</i> , 2013, 25, 3971-3978.	6.7	25
46	Oxidative dehydrogenation of ethylbenzene to styrene over alumina: effect of calcination. <i>Catalysis Science and Technology</i> , 2013, 3, 519-526.	4.1	28
47	Direct activation of microcrystalline zeolites. <i>Microporous and Mesoporous Materials</i> , 2013, 171, 208-214.	4.4	9
48	Stabilization of Self-Assembled Alumina Mesophases. <i>Chemistry of Materials</i> , 2013, 25, 848-855.	6.7	40
49	Catalyst studies on the ring opening of tetrahydrofuran-dimethanol to 1,2,6-hexanetriol. <i>Catalysis Today</i> , 2013, 210, 106-116.	4.4	67
50	Catalytic hydrotreatment of fast pyrolysis oil using bimetallic Ni-Cu catalysts on various supports. <i>Applied Catalysis A: General</i> , 2012, 449, 121-130.	4.3	121
51	The oxidative esterification of glycerol to methyl glycerate in methanol using gold on oxidic supports: an insight in product selectivity. <i>Green Chemistry</i> , 2012, 14, 2031.	9.0	21
52	From 5-Hydroxymethylfurfural (HMF) to Polymer Precursors: Catalyst Screening Studies on the Conversion of 1,2,6-hexanetriol to 1,6-hexanediol. <i>Topics in Catalysis</i> , 2012, 55, 612-619.	2.8	100
53	Caprolactam from Renewable Resources: Catalytic Conversion of $\epsilon$ -Hydroxymethylfurfural into Caprolactone. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 7083-7087.	13.8	409
54	Catalyst studies on the hydrotreatment of fast pyrolysis oil. <i>Applied Catalysis B: Environmental</i> , 2010, 99, 298-306.	20.2	162

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55	Insights in the hydrotreatment of fast pyrolysis oil using a ruthenium on carbon catalyst. Energy and Environmental Science, 2010, 3, 962.	30.8	149
56	Fenton detemplation of ordered (meso)porous materials. Studies in Surface Science and Catalysis, 2007, 170, 648-654.	1.5	5
57	Biomass to Fuels. Chemical Engineering Research and Design, 2007, 85, 466-472.	5.6	112
58	Alkaline leaching for synthesis of improved Fe-ZSM5 catalysts. Catalysis Communications, 2006, 7, 100-103.	3.3	20
59	Tooling up Heterogeneous Catalysis through Fenton's Chemistry. Detemplation and functionalization of micro- And mesoporous materials.. Studies in Surface Science and Catalysis, 2006, 162, 37-46.	1.5	1
60	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.	6.2	108
61	Synergy of Fe-Ce mixed oxides for N2O decomposition. Journal of Catalysis, 2006, 239, 340-346.	6.2	177
62	Oxidation of o-xylene on mesoporous Ti-phosphate-supported VOx catalysts and promoter effect of K+ on selectivity. Catalysis Today, 2005, 99, 179-186.	4.4	12
63	Innovations in the synthesis of Fe-(exchanged)-zeolites. Catalysis Today, 2005, 110, 255-263.	4.4	27
64	Synergy between metals in bimetallic zeolite supported catalyst for NO-promoted N2O decomposition. Catalysis Letters, 2005, 99, 41-44.	2.6	37
65	Ion exchanged Fe-FER through H2O2-assisted decomplexation of organic salts. Chemical Communications, 2005, , 1525-1527.	4.1	11
66	Room temperature detemplation of zeolites through H2O2-mediated oxidation. Chemical Communications, 2005, , 2744.	4.1	12
67	One-pot catalyst preparation: combined detemplating and Fe ion-exchange of BEA through Fenton's chemistry. Chemical Communications, 2005, , 2178-2180.	4.1	30
68	Highly active and stable ion-exchanged Fe-Ferrierite catalyst for N2O decomposition under nitric acid tail gas conditions. Catalysis Communications, 2005, 6, 301-305.	3.3	49
69	Production of hydrogen from methanol over Cu/ZnO catalysts promoted by ZrO2 and Al2O3. Journal of Catalysis, 2003, 219, 389-403.	6.2	364
70	Production of hydrogen from methanol over binary Cu/ZnO catalysts. Applied Catalysis A: General, 2003, 253, 201-211.	4.3	98
71	Bulk and Surface Structures of Palladium-Modified Copper-Zinc Oxide Hexahydroxycarbonate Precursors. Chemistry of Materials, 2002, 14, 1863-1872.	6.7	6
72	Thermal decomposition of a hydrotalcite-containing Cu-Zn-Al precursor: thermal methods combined with an in situ DRIFT study. Physical Chemistry Chemical Physics, 2002, 4, 3122-3127.	2.8	47

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73	Liquid phase hydrogenation of crotonaldehyde over bimetallic Rh-Sn/SiO <sub>2</sub> catalysts. Applied Catalysis A: General, 2002, 233, 183-196.	4.3	47
74	Interfacial Properties of an Ir/TiO <sub>2</sub> System and Their Relevance in Crotonaldehyde Hydrogenation. Journal of Catalysis, 2002, 208, 229-237.	6.2	67
75	Reverse Topotactic Transformation of a Cu <sub>2</sub> Zn <sub>2</sub> Al Catalyst during Wet Pd Impregnation: Relevance for the Performance in Methanol Synthesis from CO <sub>2</sub> /H <sub>2</sub> Mixtures. Journal of Catalysis, 2002, 210, 273-284.	6.2	119
76	Pd-Modified Cu <sub>2</sub> Zn Catalysts for Methanol Synthesis from CO <sub>2</sub> /H <sub>2</sub> Mixtures: Catalytic Structures and Performance. Journal of Catalysis, 2002, 210, 285-294.	6.2	116
77	Title is missing!. Catalysis Letters, 2002, 79, 165-170.	2.6	56
78	Title is missing!. Catalysis Letters, 2002, 84, 153-161.	2.6	17
79	CO <sub>2</sub> hydrogenation over Pd-modified methanol synthesis catalysts. Catalysis Today, 1998, 45, 251-256.	4.4	60