## Oliver Gutiérrez Tinoco

List of Publications by Year in descending order

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120 papers 4,282 citations

94433 37 h-index 59 g-index

123 all docs

123 docs citations

times ranked

123

3550 citing authors

#	Article	IF	CITATIONS
1	Electrocatalytic Hydrogenation of Biomass-Derived Organics: A Review. Chemical Reviews, 2020, 120, 11370-11419.	47.7	185
2	Effects of the Support on the Performance and Promotion of (Ni)MoS <sub>2</sub> Catalysts for Simultaneous Hydrodenitrogenation and Hydrodesulfurization. ACS Catalysis, 2014, 4, 1487-1499.	11.2	157
3	Effect of the support on the high activity of the (Ni)Mo/ZrO2–SBA-15 catalyst in the simultaneous hydrodesulfurization of DBT and 4,6-DMDBT. Journal of Catalysis, 2011, 281, 50-62.	6.2	156
4	The synergistic effect between Ni sites and Ni-Fe alloy sites on hydrodeoxygenation of lignin-derived phenols. Applied Catalysis B: Environmental, 2019, 253, 348-358.	20.2	155
5	Selective Methane Oxidation to Methanol on Cu-Oxo Dimers Stabilized by Zirconia Nodes of an NU-1000 Metal–Organic Framework. Journal of the American Chemical Society, 2019, 141, 9292-9304.	13.7	131
6	SBA-15 supports modified by Ti and Zr grafting for NiMo hydrodesulfurization catalysts. Catalysis Today, 2006, 116, 485-497.	4.4	126
7	Genesis and Stability of Hydronium Ions in Zeolite Channels. Journal of the American Chemical Society, 2019, 141, 3444-3455.	13.7	119
8	Hydrogenation of benzaldehyde via electrocatalysis and thermal catalysis on carbon-supported metals. Journal of Catalysis, 2018, 359, 68-75.	6.2	116
9	Aqueous phase electrocatalysis and thermal catalysis for the hydrogenation of phenol at mild conditions. Applied Catalysis B: Environmental, 2016, 182, 236-246.	20.2	103
10	Electrocatalytic Hydrogenation of Phenol over Platinum and Rhodium: Unexpected Temperature Effects Resolved. ACS Catalysis, 2016, 6, 7466-7470.	11.2	86
11	Copper-zirconia interfaces in UiO-66 enable selective catalytic hydrogenation of CO2 to methanol. Nature Communications, 2020, 11, 5849.	12.8	86
12	Deoxygenation of Palmitic Acid on Unsupported Transition-Metal Phosphides. ACS Catalysis, 2017, 7, 6331-6341.	11.2	83
13	Understanding the Role of Metal and Molecular Structure on the Electrocatalytic Hydrogenation of Oxygenated Organic Compounds. ACS Catalysis, 2019, 9, 9964-9972.	11.2	81
14	Bulk and γ‑Al2O3-supported Ni2P and MoP for hydrodeoxygenation of palmitic acid. Applied Catalysis B: Environmental, 2016, 180, 301-311.	20.2	76
15	Electrocatalytic Hydrogenation of Oxygenated Compounds in Aqueous Phase. Organic Process Research and Development, 2018, 22, 1590-1598.	2.7	76
16	Integrated catalytic and electrocatalytic conversion of substituted phenols and diaryl ethers. Journal of Catalysis, 2016, 344, 263-272.	6.2	73
17	Aqueous phase catalytic and electrocatalytic hydrogenation of phenol and benzaldehyde over platinum group metals. Journal of Catalysis, 2020, 382, 372-384.	6.2	68
18	Roles of Cu+ and Cu0 sites in liquid-phase hydrogenation of esters on core-shell CuZnx@C catalysts. Applied Catalysis B: Environmental, 2020, 267, 118698.	20.2	68

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19	Catalytic routes and oxidation mechanisms in photoreforming of polyols. Journal of Catalysis, 2016, 344, 806-816.	6.2	65
20	Kinetic Investigation of the Sustainable Electrocatalytic Hydrogenation of Benzaldehyde on Pd/C: Effect of Electrolyte Composition and Half-Cell Potentials. ACS Sustainable Chemistry and Engineering, 2018, 6, 16073-16085.	6.7	65
21	Performance of Base and Noble Metals for Electrocatalytic Hydrogenation of Bio-Oil-Derived Oxygenated Compounds. ACS Sustainable Chemistry and Engineering, 2020, 8, 4407-4418.	6.7	65
22	Modification of Activity and Selectivity of NiMo/SBA-15 HDS Catalysts by Grafting of Different Metal Oxides on the Support Surface. Industrial & Engineering Chemistry Research, 2009, 48, 1126-1133.	3.7	60
23	Impact of pH on Aqueous-Phase Phenol Hydrogenation Catalyzed by Carbon-Supported Pt and Rh. ACS Catalysis, 2019, 9, 1120-1128.	11.2	55
24	Environment of Metal–O–Fe Bonds Enabling High Activity in CO <sub>2</sub> Reduction on Single Metal Atoms and on Supported Nanoparticles. Journal of the American Chemical Society, 2021, 143, 5540-5549.	13.7	54
25	Disordered, Sub-Nanometer Ru Structures on CeO <sub>2</sub> are Highly Efficient and Selective Catalysts in Polymer Upcycling by Hydrogenolysis. ACS Catalysis, 2022, 12, 4618-4627.	11.2	54
26	Electrochemically Tunable Protonâ€Coupled Electron Transfer in Pdâ€Catalyzed Benzaldehyde Hydrogenation. Angewandte Chemie - International Edition, 2020, 59, 1501-1505.	13.8	53
27	Selective poisoning of the direct denitrogenation route in o-propylaniline HDN by DBT on Mo and NiMo/ $\hat{l}^3$ -Al2O3 sulfide catalysts. Journal of Catalysis, 2011, 281, 325-338.	6.2	51
28	Hydrodeoxygenation of fatty acid esters catalyzed by Ni on nano-sized MFI type zeolites. Catalysis Science and Technology, 2016, 6, 7976-7984.	4.1	49
29	Carbon-supported Pt during aqueous phenol hydrogenation with and without applied electrical potential: X-ray absorption and theoretical studies of structure and adsorbates. Journal of Catalysis, 2018, 368, 8-19.	6.2	49
30	Critical role of solvent-modulated hydrogen-binding strength in the catalytic hydrogenation of benzaldehyde on palladium. Nature Catalysis, 2021, 4, 976-985.	34.4	49
31	Structure Sensitivity in Hydrogenation Reactions on Pt/C in Aqueousâ€phase. ChemCatChem, 2019, 11, 575-582.	3.7	47
32	Ring opening of 1,2,3,4-tetrahydroquinoline and decahydroquinoline on MoS2/l̂³-Al2O3 and Ni–MoS2/l̂³-Al2O3. Journal of Catalysis, 2012, 295, 155-168.	6.2	46
33	Carbon–Carbon Bond Scission Pathways in the Deoxygenation of Fatty Acids on Transition-Metal Sulfides. ACS Catalysis, 2017, 7, 1068-1076.	11.2	44
34	Synthesis of Methanethiol from Carbonyl Sulfide and Carbon Disulfide on (Co)K-Promoted Sulfide Mo/SiO <sub>2</sub> Catalysts. ACS Catalysis, 2011, 1, 1595-1603.	11.2	43
35	Effect of reaction conditions on the hydrogenolysis of polypropylene and polyethylene into gas and liquid alkanes. Reaction Chemistry and Engineering, 2022, 7, 844-854.	3.7	43
36	Synthesis of methyl mercaptan from carbonyl sulfide over sulfide K2MoO4/SiO2. Journal of Catalysis, 2011, 280, 264-273.	6.2	40

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37	Quantifying Adsorption of Organic Molecules on Platinum in Aqueous Phase by Hydrogen Site Blocking and in Situ X-ray Absorption Spectroscopy. ACS Catalysis, 2019, 9, 6869-6881.	11.2	40
38	The Critical Role of Reductive Steps in the Nickel atalyzed Hydrogenolysis and Hydrolysis of Aryl Ether Câ^'O Bonds. Angewandte Chemie - International Edition, 2020, 59, 1445-1449.	13.8	40
39	Hydrogen Bonding Enhances the Electrochemical Hydrogenation of Benzaldehyde in the Aqueous Phase. Angewandte Chemie - International Edition, 2021, 60, 290-296.	13.8	40
40	Enhancing hydrogenation activity of Ni-Mo sulfide hydrodesulfurization catalysts. Science Advances, 2020, 6, eaax5331.	10.3	39
41	Impact of Ni promotion on the hydrogenation pathways of phenanthrene on MoS2/ $\hat{l}^3$ -Al2O3. Journal of Catalysis, 2017, 352, 171-181.	6.2	38
42	Understanding Ni Promotion of MoS <sub>2</sub> (γâ€Al <sub>2</sub> O <sub>3</sub> and its Implications for the Hydrogenation of Phenanthrene. ChemCatChem, 2015, 7, 4118-4130.	3.7	36
43	Pathways for H <sub>2</sub> Activation on (Ni)-MoS <sub>2</sub> Catalysts. Journal of Physical Chemistry Letters, 2015, 6, 2929-2932.	4.6	36
44	Kinetic Coupling of Water Splitting and Photoreforming on SrTiO <sub>3</sub> -Based Photocatalysts. ACS Catalysis, 2018, 8, 2902-2913.	11,2	36
45	Simultaneous hydrodenitrogenation and hydrodesulfurization on unsupported Ni-Mo-W sulfides. Catalysis Today, 2017, 297, 344-355.	4.4	35
46	Exceptional Fluorocarbon Uptake with Mesoporous Metal–Organic Frameworks for Adsorption-Based Cooling Systems. ACS Applied Energy Materials, 2018, 1, 5853-5858.	5.1	35
47	Overcoming the Rate-Limiting Reaction during Photoreforming of Sugar Aldoses for H <sub>2</sub> -Generation. ACS Catalysis, 2017, 7, 3236-3244.	11.2	34
48	Tailoring p-xylene selectivity in toluene methylation on medium pore-size zeolites. Microporous and Mesoporous Materials, 2015, 210, 52-59.	4.4	33
49	Influence of Potassium on the Synthesis of Methanethiol from Carbonyl Sulfide on Sulfided Mo/Al <sub>2</sub> O <sub>3</sub> Catalyst. ChemCatChem, 2011, 3, 1480-1490.	3.7	32
50	Enabling Overall Water Splitting on Photocatalysts by CO-Covered Noble Metal Co-catalysts. Journal of Physical Chemistry Letters, 2016, 7, 4358-4362.	4.6	32
51	Active Sites on Nickelâ€Promoted Transitionâ€Metal Sulfides That Catalyze Hydrogenation of Aromatic Compounds. Angewandte Chemie - International Edition, 2018, 57, 14555-14559.	13.8	32
52	Inverse iron oxide/metal catalysts from galvanic replacement. Nature Communications, 2020, 11, 3269.	12.8	31
53	Importance of Methane Chemical Potential for Its Conversion to Methanol on Cuâ€Exchanged Mordenite. Chemistry - A European Journal, 2020, 26, 7563-7567.	3.3	31
54	Tailoring silica–alumina-supported Pt–Pd as poison-tolerant catalyst for aromatics hydrogenation. Journal of Catalysis, 2013, 304, 135-148.	6.2	31

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55	Bimetallic Pt–Pd/silica–alumina hydrotreating catalysts. Part II: Structure–activity correlations in the hydrogenation of tetralin in the presence of dibenzothiophene and quinoline. Journal of Catalysis, 2012, 292, 13-25.	6.2	29
56	Structure sensitivity of hydrogenolytic cleavage of endocyclic and exocyclic C–C bonds in methylcyclohexane over supported iridium particles. Journal of Catalysis, 2013, 297, 70-78.	6.2	28
57	Photoreforming of ethylene glycol over Rh/TiO2 and Rh/GaN:ZnO. Journal of Catalysis, 2016, 338, 68-81.	6.2	27
58	Palladium atalyzed Reductive Insertion of Alcohols into Aryl Ether Bonds. Angewandte Chemie - International Edition, 2018, 57, 3747-3751.	13.8	27
59	Anodic electrocatalytic conversion of carboxylic acids on thin films of RuO2, IrO2, and Pt. Applied Catalysis B: Environmental, 2020, 277, 119277.	20.2	27
60	Active sites and reactive intermediates in the hydrogenolytic cleavage of C–C bonds in cyclohexane over supported iridium. Journal of Catalysis, 2012, 295, 133-145.	6.2	26
61	γâ€Al <sub>2</sub> O <sub>3</sub> â€Supported and Unsupported (Ni)MoS <sub>2</sub> for the Hydrodenitrogenation of Quinoline in the Presence of Dibenzothiophene. ChemCatChem, 2014, 6, 485-499.	3.7	26
62	Differences in Mechanism and Rate of Zeolite-Catalyzed Cyclohexanol Dehydration in Apolar and Aqueous Phase. ACS Catalysis, 2021, 11, 2879-2888.	11.2	26
63	Bimetallic Pt–Pd/silica–alumina hydrotreating catalysts – Part I: Physicochemical characterization. Journal of Catalysis, 2012, 292, 1-12.	6.2	25
64	Synthesis of Methanethiol from CS <sub>2</sub> on Niâ€; Coâ€; and Kâ€Doped MoS <sub>2</sub> /SiO <sub>2</sub> Catalysts. ChemCatChem, 2013, 5, 3249-3259.	3.7	25
65	On the enhanced catalytic activity of acid-treated, trimetallic Ni-Mo-W sulfides for quinoline hydrodenitrogenation. Journal of Catalysis, 2019, 380, 332-342.	6.2	25
66	Aqueous phase hydrogenation of phenol catalyzed by Pd and PdAg on ZrO2. Applied Catalysis A: General, 2017, 548, 128-135.	4.3	24
67	Methanol thiolation over Al2O3 and WS2 catalysts modified with cesium. Journal of Catalysis, 2017, 345, 308-318.	6.2	23
68	Simultaneous electrocatalytic hydrogenation of aldehydes and phenol over carbon-supported metals. Journal of Applied Electrochemistry, 2021, 51, 27-36.	2.9	21
69	Activity of Cu–Al–Oxo Extra-Framework Clusters for Selective Methane Oxidation on Cu-Exchanged Zeolites. Jacs Au, 2021, 1, 1412-1421.	7.9	21
70	Site Densities, Rates, and Mechanism of Stable Ni/UiO-66 Ethylene Oligomerization Catalysts. Journal of the American Chemical Society, 2021, 143, 20274-20280.	13.7	21
71	Catalytic Consequences of Particle Size and Chloride Promotion in the Ring-Opening of Cyclopentane on Pt/Al <sub>2</sub> O <sub>3</sub> . ACS Catalysis, 2013, 3, 328-338.	11.2	19
72	Towards Understanding Structure–Activity Relationships of Ni–Mo–W Sulfide Hydrotreating Catalysts. ChemCatChem, 2017, 9, 629-641.	3.7	19

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73	A nitrogen-doped PtSn nanocatalyst supported on hollow silica spheres for acetic acid hydrogenation. Chemical Communications, 2018, 54, 8818-8821.	4.1	19
74	Directing the Rateâ€Enhancement for Hydronium Ion Catalyzed Dehydration via Organization of Alkanols in Nanoscopic Confinements. Angewandte Chemie - International Edition, 2021, 60, 2304-2311.	13.8	19
75	Electrochemically Tunable Protonâ€Coupled Electron Transfer in Pdâ€Catalyzed Benzaldehyde Hydrogenation. Angewandte Chemie, 2020, 132, 1517-1521.	2.0	18
76	Electrocatalytic decarboxylation of carboxylic acids over RuO2 and Pt nanoparticles. Applied Catalysis B: Environmental, 2022, 305, 121060.	20.2	18
77	Distribution of Metal Cations in Niâ€Moâ€W Sulfide Catalysts. ChemCatChem, 2015, 7, 3692-3704.	3.7	17
78	Understanding the Role of Surface Heterogeneities in Electrosynthesis Reactions. IScience, 2020, 23, 101814.	4.1	16
79	Porous Covalent Organic Polymers for Efficient Fluorocarbonâ€Based Adsorption Cooling. Angewandte Chemie - International Edition, 2021, 60, 18037-18043.	13.8	16
80	Cesium Induced Changes in the Acid–Base Properties of Metal Oxides and the Consequences for Methanol Thiolation. ACS Catalysis, 2019, 9, 9245-9252.	11.2	15
81	On the role of the alkali cations on methanol thiolation. Catalysis Science and Technology, 2017, 7, 4437-4443.	4.1	14
82	The role of weak Lewis acid sites for methanol thiolation. Catalysis Science and Technology, 2019, 9, 509-516.	4.1	14
83	Kinetics of nitrogen-, oxygen- and sulfur-containing compounds hydrotreating during co-processing of bio-crude with petroleum stream. Applied Catalysis B: Environmental, 2022, 307, 121197.	20.2	14
84	Hydrogen Bonding Enhances the Electrochemical Hydrogenation of Benzaldehyde in the Aqueous Phase. Angewandte Chemie, 2021, 133, 294-300.	2.0	12
85	Effect of H2 in the synthesis of COS using liquid sulfur and CO or CO2 as reactants. Research on Chemical Intermediates, 2010, 36, 211-225.	2.7	11
86	Palladium atalyzed Reductive Insertion of Alcohols into Aryl Ether Bonds. Angewandte Chemie, 2018, 130, 3809-3813.	2.0	11
87	Electrocatalytic valorization into H2 and hydrocarbons of an aqueous stream derived from hydrothermal liquefaction. Journal of Applied Electrochemistry, 2021, 51, 107-118.	2.9	11
88	Electrochemical routes for biomass conversion. Journal of Applied Electrochemistry, 2021, 51, 1-3.	2.9	11
89	Hydrogenation of tetralin over Pt catalysts supported on sulfated zirconia and amorphous silica alumina. Catalysis Science and Technology, 2013, 3, 2365.	4.1	10
90	Metal-organic framework supported single-site nickel catalysts for butene dimerization. Journal of Catalysis, 2022, 413, 176-183.	6.2	9

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91	APPLICATION OF NEW ZRO2-SBA-15 MATERIALS AS CATALYTIC SUPPORTS: STUDY OF INTRINSIC ACTIVITY OF MO CATALYSTS IN DEEP HDS. Chemical Engineering Communications, 2009, 196, 1163-1177.	2.6	8
92	Mechanistic Pathways for Methylcyclohexane Hydrogenolysis over Supported Ir Catalysts. Journal of Physical Chemistry C, 2014, 118, 20948-20958.	3.1	8
93	Copper-Based Catalysts Confined in Carbon Nanocage Reactors for Condensed Ester Hydrogenation: Tuning Copper Species by Confined SiO <sub>2</sub> and Methanol Resistance. ACS Sustainable Chemistry and Engineering, 2021, 9, 16270-16280.	6.7	8
94	New NiMo catalysts supported on ZrO2-modified SBA-15 materials for 4,6-dimethyldibenzothiophene hydrodesulfurization. Studies in Surface Science and Catalysis, 2006, 162, 355-362.	1.5	7
95	Explaining the structure sensitivity of Pt and Rh for aqueous-phase hydrogenation of phenol. Journal of Chemical Physics, 2022, 156, 104703.	3.0	7
96	The Critical Role of Reductive Steps in the Nickelâ€Catalyzed Hydrogenolysis and Hydrolysis of Aryl Ether Câ^'O Bonds. Angewandte Chemie, 2020, 132, 1461-1465.	2.0	6
97	Tuning proton transfer and catalytic properties in triple junction nanostructured catalyts. Nano Energy, 2021, 86, 106046.	16.0	5
98	Impact of functional groups on the electrocatalytic hydrogenation of aromatic carbonyls to alcohols. Catalysis Today, 2022, 397-399, 63-68.	4.4	5
99	SBA-15 mesoporous molecular sieves doped with ZrO2 or TiO2 as supports for Mo HDS catalysts. Studies in Surface Science and Catalysis, 2007, , 803-806.	1.5	4
100	Maximizing Active Site Concentrations at Ni-Substituted WS2 Edges for Hydrogenation of Aromatic Molecules. Journal of Physical Chemistry Letters, 2019, 10, 5617-5622.	4.6	4
101	Directing the Rateâ€Enhancement for Hydronium Ion Catalyzed Dehydration via Organization of Alkanols in Nanoscopic Confinements. Angewandte Chemie, 2021, 133, 2334-2341.	2.0	4
102	Importance of Methane Chemical Potential for Its Conversion to Methanol on Cuâ€exchanged Mordenite. Chemistry - A European Journal, 2020, 26, 7515-7515.	3.3	3
103	Controlling Reaction Routes in Nobleâ€Metalâ€Catalyzed Conversion of Aryl Ethers. Angewandte Chemie - International Edition, 2022, 61, .	13.8	3
104	Active Sites on Nickelâ€Promoted Transitionâ€Metal Sulfides That Catalyze Hydrogenation of Aromatic Compounds. Angewandte Chemie, 2018, 130, 14763-14767.	2.0	2
105	Magnesium–Aluminum Mixed Oxides as Basic Catalysts for the Synthesis of Methanethiol. Catalysis Letters, 2020, 150, 2304-2308.	2.6	2
106	Controlling Reaction Routes in Nobleâ€Metal atalyzed Conversion of Aryl Ethers. Angewandte Chemie, 0, , .	2.0	2
107	Electrocatalytic Reduction of Carbonyl Groups in Aromatic Molecules: A Step Towards Electrochemical Bio-Oil Conversion. ECS Meeting Abstracts, 2017, , .	0.0	1
108	Anodic electrocatalytic conversion of carboxylic acids on thin films of RuO2, IrO2, and Pt., 2020, , .		1

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109	Porous Covalent Organic Polymers for Efficient Fluorocarbonâ€Based Adsorption Cooling. Angewandte Chemie, 2021, 133, 18185-18191.	2.0	0
110	Innentitelbild: Porous Covalent Organic Polymers for Efficient Fluorocarbonâ€Based Adsorption Cooling (Angew. Chem. 33/2021). Angewandte Chemie, 2021, 133, 17894-17894.	2.0	0
111	Towards Controlling the Electrocatalytic Hydrogenation of Oxygenated Hydrocarbons through Particle Size Effects. ECS Meeting Abstracts, 2017, , .	0.0	O
112	Understanding Electrocatalytic Hydrogenation of Phenol and Benzaldehyde on Platinum Group Metals for Fuel Production. ECS Meeting Abstracts, 2018, , .	0.0	0
113	Electrocatalytic Hydrogenation of Benzaldehyde: Unexpected Enhancing Effect By Co-Adsorbed Proton Donor. ECS Meeting Abstracts, 2019, , .	0.0	0
114	Understanding Metal Structure Sensitivity during the Electrocatalytic Hydrogenation and Oxidation of Biomass-Derived Molecules at Normal Temperature and Pressure. ECS Meeting Abstracts, 2019, , .	0.0	0
115	Electrocatalytic Hydrogenation of Biogenic Molecules: Understanding Reactivity Trends. ECS Meeting Abstracts, 2019, , .	0.0	0
116	Hydrogenation of Carbonyl Compounds over Pd in Aqueous Phase Under Charged Conditions: Role of Organic Molecular Structure. ECS Meeting Abstracts, 2019, , .	0.0	0
117	Electrochemical Upgrading of Wastes to Products- Fundamental Studies Using a Combined Experimental and Computational Approach. ECS Meeting Abstracts, 2019, , .	0.0	0
118	Progress Towards Electrochemical Methods for Pyrolysis-Oil Hydrogenation. ECS Meeting Abstracts, 2018, MA2018-01, 1822-1822.	0.0	0
119	Inside Cover: Controlling Reaction Routes in Nobleâ€Metalâ€Catalyzed Conversion of Aryl Ethers (Angew.) Tj ETO	Qq1_1,0.78 13.8	34314 rgBT
120	Innentitelbild: Controlling Reaction Routes in Nobleâ€Metal atalyzed Conversion of Aryl Ethers (Angew. Chem. 30/2022). Angewandte Chemie, 2022, 134, .	2.0	0