Marian Chatenet

List of Publications by Year
in descending order

186 papers	9,998 citations	23567 58 h-index	42399 92 g-index
189 all docs	189 docs citations	189 times ranked	8123 citing authors

#	Article	IF	Citations
1	Water electrolysis: from textbook knowledge to the latest scientific strategies and industrial developments. Chemical Society Reviews, 2022, 51, 4583-4762.	38.1	453
2	Carbon-Supported Manganese Oxide Nanoparticles as Electrocatalysts for the Oxygen Reduction Reaction (ORR) in Alkaline Medium:â€‰ Physical Characterizations and ORR Mechanism. Journal of Physical Chemistry C, 2007, 111, 1434-1443.	3.1	437
3	Durability challenges of anion exchange membrane fuel cells. Energy and Environmental Science, 2020, 13, 2805-2838.	30.8	393
4	Huge Instability of Pt/C Catalysts in Alkaline Medium. ACS Catalysis, 2015, 5, 4819-4824.	11.2	325
5	Improved water electrolysis using magnetic heating of FeCâ€“Ni coreâ€“shell nanoparticles. Nature Energy, 2018, 3, 476-483.	39.5	299
6	A review of <scp>PEM</scp> fuel cell durability: materials degradation, local heterogeneities of aging and possible mitigation strategies. Wiley Interdisciplinary Reviews: Energy and Environment, 2014, 3, 540-560.	4.1	257
7	Detection of Pt[sup z+] Ions and Pt Nanoparticles Inside the Membrane of a Used PEMFC. Journal of the Electrochemical Society, 2007, 154, B96.	2.9	217
8	Kinetics of sodium borohydride direct oxidation and oxygen reduction in sodium hydroxide electrolyte. Electrochimica Acta, 2006, 51, 5459-5467.	5.2	203
9	Title is missing!. Journal of Applied Electrochemistry, 2002, 32, 1131-1140.	2.9	197
10	Carbon Corrosion in Proton-Exchange Membrane Fuel Cells: From Model Experiments to Real-Life Operation in Membrane Electrode Assemblies. ACS Catalysis, 2014, 4, 2258-2267.	11.2	188
11	Membrane and Active Layer Degradation upon PEMFC Steady-State Operation. Journal of the Electrochemical Society, 2007, 154, B1106.	2.9	164
12	Highly active nanostructured palladium-ceria electrocatalysts for the hydrogen oxidation reaction in alkaline medium. Nano Energy, 2017, 33, 293-305.	16.0	147
13	Highly dispersed platinum on carbon aerogels as supported catalysts for PEM fuel cell-electrodes: comparison of two different synthesis paths. Journal of Non-Crystalline Solids, 2004, 350, 88-96.	3.1	125
14	Recent Advances in the Understanding of Nickel-Based Catalysts for the Oxidation of Hydrogen-Containing Fuels in Alkaline Media. ACS Catalysis, 2020, 10, 7043-7068.	11.2	125
15	Degradation heterogeneities induced by repetitive start/stop events in proton exchange membrane fuel cell: Inlet vs. outlet and channel vs. land. Applied Catalysis B: Environmental, 2013, 138-139, 416-426.	20.2	124
16	Use of cellulose-based carbon aerogels as catalyst support for PEM fuel cell electrodes: Electrochemical characterization. Journal of Power Sources, 2007, 166, 104-111.	7.8	122
17	Steel: The Resurrection of a Forgotten Water-Splitting Catalyst. ACS Energy Letters, 2018, 3, 574-591.	17.4	122
18	Further insights into the durability of Pt3Co/C electrocatalysts: Formation of â€œhollowâ€•Pt nanoparticles induced by the Kirkendall effect. Electrochimica Acta, 2011, 56, 10658-10667.	5.2	118

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19	Direct oxidation of sodium borohydride on Pt, Ag and alloyed Ptâ€“Ag electrodes in basic media. Part I: Bulk electrodes. Electrochimica Acta, 2009, 54, 6119-6129.	5.2	113
20	Probing the structure, the composition and the ORR activity of Pt3Co/C nanocrystallites during a 3422h PEMFC ageing test. Applied Catalysis B: Environmental, 2013, 142-143, 801-808.	20.2	109
21	Durability of Pt3Co/C nanoparticles in a proton-exchange membrane fuel cell: Direct evidence of bulk Co segregation to the surface. Electrochemistry Communications, 2010, 12, 1161-1164.	4.7	103
22	Nanoscale compositional changes and modification of the surface reactivity of Pt3Co/C nanoparticles during proton-exchange membrane fuel cell operation. Electrochimica Acta, 2010, 56, 776-783.	5.2	100
23	Ethanol oxidation reaction (EOR) investigation on Pt/C, Rh/C, and Pt-based bi- and tri-metallic electrocatalysts: A DEMS and in situ FTIR study. Applied Catalysis B: Environmental, 2016, 181, 672-680.	20.2	100
24	Silver-Platinum Bimetallic Catalysts for Oxygen Cathodes in Chlor-alkali Electrolysis: Comparison with Pure Platinum. Journal of the Electrochemical Society, 2003, 150, D47.	2.9	98
25	Borohydride electrooxidation on Au and Pt electrodes. Electrochimica Acta, 2012, 84, 202-212.	5.2	91
26	Gold is not a Faradaic-Efficient Borohydride Oxidation Electrocatalyst: An Online Electrochemical Mass Spectrometry Study. Journal of the Electrochemical Society, 2010, 157, B697.	2.9	88
27	Evaluation of anode (electro)catalytic materials for the direct borohydride fuel cell: Methods and benchmarks. Journal of Power Sources, 2016, 327, 235-257.	7.8	88
28	Durability of carbon-supported manganese oxide nanoparticles for the oxygen reduction reaction (ORR) in alkaline medium. Journal of Applied Electrochemistry, 2008, 38, 1195-1201.	2.9	87
29	Investigation of platinum and palladium as potential anodic catalysts for direct borohydride and ammonia borane fuel cells. Journal of Power Sources, 2015, 297, 492-503.	7.8	87
30	Direct oxidation of sodium borohydride on Pt, Ag and alloyed Ptâ€“Ag electrodes in basic media. Electrochimica Acta, 2009, 54, 6130-6139.	5.2	85
31	Effect of the structure of Ptâ€“Ru/C particles on COad monolayer vibrational properties and electrooxidation kinetics. Electrochimica Acta, 2007, 53, 811-822.	5.2	84
32	Development of an oxygen-evolution electrode from 316L stainless steel: Application to the oxygen evolution reaction in aqueous lithiumâ€“air batteries. Journal of Power Sources, 2013, 229, 123-132.	7.8	84
33	Highly porous PEM fuel cell cathodes based on low density carbon aerogels as Pt-support: Experimental study of the mass-transport losses. Journal of Power Sources, 2009, 190, 423-434.	7.8	81
34	Degradation of Carbon-Supported Platinum-Group-Metal Electrocatalysts in Alkaline Media Studied by in Situ Fourier Transform Infrared Spectroscopy and Identical-Location Transmission Electron Microscopy. ACS Catalysis, 2019, 9, 5613-5622.	11.2	80
35	Kinetics of sodium borohydride direct oxidation and oxygen reduction in sodium hydroxide electrolyte. Electrochimica Acta, 2006, 51, 5452-5458.	5.2	79
36	Durability of Pt[sub 3]Co/C Cathodes in a 16 Cell PEMFC Stack: Macro/Microstructural Changes and Degradation Mechanisms. Journal of the Electrochemical Society, 2010, 157, B1887.	2.9	79

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37	Direct rotating ring-disk measurement of the sodium borohydride diffusion coefficient in sodium hydroxide solutions. Electrochimica Acta, 2009, 54, 4426-4435.	5.2	77
38	Borohydride oxidation reaction mechanisms and poisoning effects on Au, Pt and Pd bulk electrodes: From model (low) to direct borohydride fuel cell operating (high) concentrations. Electrochimica Acta, 2018, 273, 483-494.	5.2	76
39	Carbon corrosion induced by membrane failure: The weak link of PEMFC long-term performance. International Journal of Hydrogen Energy, 2014, 39, 21902-21914.	7.1	75
40	Is carbon-supported Pt-WOx composite a CO-tolerant material?. Electrochimica Acta, 2007, 52, 1958-1967.	5.2	74
41	In situ infrared (FTIR) study of the borohydride oxidation reaction. Electrochemistry Communications, 2009, 11, 223-226.	4.7	71
42	Detection of Sugarcane yellow leaf virus in Quarantine and Production of Virus-free Sugarcane by Apical Meristem Culture. Plant Disease, 2001, 85, 1177-1180.	1.4	70
43	Borohydride Electrooxidation on Carbon-Supported Noble Metal Nanoparticles: Insights into Hydrogen and Hydroxyborane Formation. ACS Catalysis, 2015, 5, 2778-2787.	11.2	70
44	Benefits and limitations of Pt nanoparticles supported on highly porous antimony-doped tin dioxide aerogel as alternative cathode material for proton-exchange membrane fuel cells. Applied Catalysis B: Environmental, 2017, 201, 381-390.	20.2	70
45	Selected Review of the Degradation of Pt and Pdâ€based Carbonâ€supported Electrocatalysts for Alkaline Fuel Cells: Towards Mechanisms of Degradation. Fuel Cells, 2018, 18, 229-238.	2.4	70
46	First insights into the borohydride oxidation reaction mechanism on gold by electrochemical impedance spectroscopy. Electrochimica Acta, 2009, 54, 1687-1693.	5.2	69
47	In situ infrared (FTIR) study of the mechanism of the borohydride oxidation reaction. Physical Chemistry Chemical Physics, 2010, 12, 11507.	2.8	69
48	The role of the support in CO_{ads}monolayer electrooxidation on Ptnanoparticles: Pt/WO_xvs.Pt/C. Physical Chemistry Chemical Physics, 2010, 12, 1182-1193.	2.8	69
49	Accelerated Stress Test of Pt/C Nanoparticles in an Interface with an Anion-Exchange Membraneâ€”An Identical-Location Transmission Electron Microscopy Study. ACS Catalysis, 2018, 8, 1278-1286.	11.2	69
50	Use of magnetic fields in electrochemistry: A selected review. Current Opinion in Electrochemistry, 2020, 23, 96-105.	4.8	69
51	In Situ Infrared (FTIR) Study of the Mechanism of the Borohydride Oxidation Reaction on Smooth Pt Electrode. Journal of Physical Chemistry C, 2011, 115, 12439-12447.	3.1	68
52	Unique CO-tolerance of Ptâ€“WOx materials. Electrochemistry Communications, 2009, 11, 651-654.	4.7	67
53	Genetic diversity in the coat protein coding region of eighty-six sugarcane mosaic virus isolates from eight countries, particularly from Cameroon and Congo. Archives of Virology, 2003, 148, 357-372.	2.1	66
54	New nanostructured carbons based on porous cellulose: Elaboration, pyrolysis and use as platinum nanoparticles substrate for oxygen reduction electrocatalysis. Journal of Power Sources, 2008, 185, 717-726.	7.8	65

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55	Highly-active Pdâ€“Cu electrocatalysts for oxidation of ubiquitous oxygenated fuels. Applied Catalysis B: Environmental, 2016, 191, 76-85.	20.2	61
56	Impact of metal cations on the electrocatalytic properties of Pt/C nanoparticles at multiple phase interfaces. Physical Chemistry Chemical Physics, 2012, 14, 13000.	2.8	59
57	Highly active and selective nickel molybdenum catalysts for direct hydrazine fuel cell. Electrochimica Acta, 2016, 215, 420-426.	5.2	59
58	Influence of the concentration of borohydride towards hydrogen production and escape for borohydride oxidation reaction on Pt and Au electrodes â€“ experimental and modelling insights. Journal of Power Sources, 2018, 375, 300-309.	7.8	59
59	Efficient Pt/carbon electrocatalysts for proton exchange membrane fuel cells: Avoid chloride-based Pt salts!. Journal of Power Sources, 2013, 240, 294-305.	7.8	58
60	Mass transport effects in the borohydride oxidation reactionâ€”Influence of the residence time on the reaction onset and faradaic efficiency. Catalysis Today, 2011, 170, 110-119.	4.4	57
61	Platinum supported on resorcinolâ€“formaldehyde based carbon aerogels for PEMFC electrodes: Influence of the carbon support on electrocatalytic properties. Journal of Applied Electrochemistry, 2006, 37, 147-153.	2.9	54
62	Comparing the thin-film rotating disk electrode and the ultramicroelectrode with cavity techniques to study carbon-supported platinum for proton exchange membrane fuel cell applications. Journal of Electroanalytical Chemistry, 2007, 599, 111-120.	3.8	54
63	Atomic-scale structure and composition of Pt3Co/C nanocrystallites during real PEMFC operation: A STEMâ€“EELS study. Applied Catalysis B: Environmental, 2014, 152-153, 300-308.	20.2	54
64	NiOx-Pt/C nanocomposites: Highly active electrocatalysts for the electrochemical oxidation of hydrazine. Applied Catalysis B: Environmental, 2017, 201, 22-28.	20.2	54
65	Effects of Pd Nanoparticle Size and Solution Reducer Strength on Pd/C Electrocatalyst Stability in Alkaline Electrolyte. Journal of the Electrochemical Society, 2016, 163, F781-F787.	2.9	53
66	Membrane and Active Layer Degradation Following PEMFC Steady-State Operation. Journal of the Electrochemical Society, 2007, 154, B1115.	2.9	51
67	Preparation of highly loaded Pt/carbon xerogel catalysts for Proton Exchange Membrane fuel cells by the Strong Electrostatic Adsorption method. Catalysis Today, 2010, 150, 119-127.	4.4	51
68	Electro-oxidation of ethanol on Pt/C, Rh/C, and Pt/Rh/C-based electrocatalysts investigated by on-line DEMS. Journal of Electroanalytical Chemistry, 2012, 681, 56-65.	3.8	51
69	Electrochemical hydrogen compression and purification versus competing technologies: Part I. Pros and cons. Chinese Journal of Catalysis, 2020, 41, 756-769.	14.0	51
70	Reversibility of Pt-Skin and Pt-Skeleton Nanostructures in Acidic Media. Journal of Physical Chemistry Letters, 2014, 5, 434-439.	4.6	48
71	Electrooxidation of NaBH4 in Alkaline Medium on Well-defined Pt Nanoparticles Deposited onto Flat Glassy Carbon Substrate: Evaluation of the Effects of Pt Nanoparticle Size, Inter-Particle Distance, and Loading. Electrocatalysis, 2014, 5, 288-300.	3.0	47
72	In situ Fourier transform infrared spectroscopy and on-line differential electrochemical mass spectrometry study of the NH3BH3 oxidation reaction on gold electrodes. Electrochimica Acta, 2013, 89, 607-615.	5.2	46

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73	Timely-activated 316L stainless steel: A low cost, durable and active electrode for oxygen evolution reaction in concentrated alkaline environments. Applied Catalysis B: Environmental, 2019, 258, 117963.	20.2	46
74	Nickel Metal Nanoparticles as Anode Electrocatalysts for Highly Efficient Direct Borohydride Fuel Cells. ACS Catalysis, 2019, 9, 8520-8528.	11.2	46
75	Identical-Location Transmission Electron Microscopy Study of Pt/C and Ptâ€“Co/C Nanostructured Electrocatalyst Aging: Effects of Morphological and Compositional Changes on the Oxygen Reduction Reaction Activity. Electrocatalysis, 2013, 4, 104-116.	3.0	44
76	Nickel-based electrocatalysts for ammonia borane oxidation: enabling materials for carbon-free-fuel direct liquid alkaline fuel cell technology. Nano Energy, 2017, 37, 248-259.	16.0	44
77	Carbon-supported nickel-doped manganese oxides as electrocatalysts for the oxygen reduction reaction in the presence of sodium borohydride. Journal of Power Sources, 2013, 222, 305-312.	7.8	42
78	Palladium Supported on 3D Graphene as an Active Catalyst for Alcohols Electrooxidation. Journal of the Electrochemical Society, 2015, 162, F1305-F1309.	2.9	41
79	Insights into the potential dependence of the borohydride electrooxidation reaction mechanism on platinum nanoparticles supported on ordered carbon nanomaterials. Electrochimica Acta, 2015, 179, 637-646.	5.2	40
80	Accelerated degradation of Pt3Co/C and Pt/C electrocatalysts studied by identical-location transmission electron microscopy in polymer electrolyte environment. Applied Catalysis B: Environmental, 2015, 176-177, 486-499.	20.2	40
81	Heterogeneities of Aging within a PEMFC MEA. Fuel Cells, 2012, 12, 188-198.	2.4	39
82	Beyond conventional electrocatalysts: hollow nanoparticles for improved and sustainable oxygen reduction reaction activity. Journal of Materials Chemistry A, 2014, 2, 18497-18507.	10.3	39
83	Intraspecific Genomic Variation Within Xanthomonas albilineans, the Sugarcane Leaf Scald Pathogen. Phytopathology, 1997, 87, 316-324.	2.2	37
84	Insights into the stability of Pt nanoparticles supported on antimony-doped tin oxide in different potential ranges. Electrochimica Acta, 2017, 245, 993-1004.	5.2	37
85	Controlling the shape change and dendritic growth in Zn negative electrodes for application in Zn/Ni batteries. Journal of Power Sources, 2017, 350, 109-116.	7.8	37
86	The role of water in the degradation of Pt3Co/C nanoparticles: An Identical Location Transmission Electron Microscopy study in polymer electrolyte environment. Applied Catalysis B: Environmental, 2014, 156-157, 301-306.	20.2	36
87	When cubic nanoparticles get spherical: An Identical Location Transmission Electron Microscopy case study with Pd in alkaline media. Electrochemistry Communications, 2014, 48, 1-4.	4.7	34
88	A high performance direct borohydride fuel cell using bipolar interfaces and noble metal-free Ni-based anodes. Journal of Materials Chemistry A, 2020, 8, 20543-20552.	10.3	34
89	Good practice guide for papers on fuel cells and electrolysis cells for the Journal of Power Sources. Journal of Power Sources, 2020, 451, 227635.	7.8	33
90	Evaluation of Several Carbon-Supported Nanostructured Ni-Doped Manganese Oxide Materials for the Electrochemical Reduction of Oxygen. Journal of the Electrochemical Society, 2011, 158, B290.	2.9	32

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91	The (electro)catalyst	membrane interface in the Proton Exchange Membrane Fuel Cell: Similarities and differences with non-electrochemical Catalytic Membrane Reactors. Catalysis Today, 2010, 156, 76-86.	4.4	31
92	Synthesis and Properties of Platinum Nanocatalyst Supported on Cellulose-Based Carbon Aerogel for Applications in PEMFCs. Journal of the Electrochemical Society, 2011, 158, B779.	2.9	31
93	Influence of the carbon texture of platinum/carbon aerogel electrocatalysts on their behavior in a proton exchange membrane fuel cell cathode. International Journal of Hydrogen Energy, 2012, 37, 9742-9757.	7.1	31
94	Electrochemical measurement of the oxygen diffusivity and solubility in concentrated alkaline media on rotating ring-disk and disk electrodesâ€"application to industrial chlorine-soda electrolyte. Electrochimica Acta, 2000, 45, 2823-2827.	5.2	30
95	Nickel 3D Structures Enhanced by Electrodeposition of Nickel Nanoparticles as High Performance Anodes for Direct Borohydride Fuel Cells. ChemElectroChem, 2020, 7, 1789-1799.	3.4	30
96	Electrochemical characterization of Pt/carbon xerogel and Pt/carbon aerogel catalysts: first insights into the influence of the carbon texture on the Pt nanoparticle morphology and catalytic activity. Journal of Materials Science, 2009, 44, 6591-6600.	3.7	29
97	Influence of the Temperature for the Ethanol Oxidation Reaction (EOR) on Pt/C, Ptâ€Rh/C and Ptâ€Rhâ€SnO₂/C. Fuel Cells, 2015, 15, 352-360.	2.4	28
98	Influence of the surface morphology of smooth platinum electrodes for the sodium borohydride oxidation reaction. Electrochemistry Communications, 2014, 43, 47-50.	4.7	27
99	Influence of H- and OH-adsorbates on the ethanol oxidation reaction â€“ a DEMS study. Physical Chemistry Chemical Physics, 2015, 17, 10881-10893.	2.8	27
100	First Insight into Fluorinated Pt/Carbon Aerogels as More Corrosion-Resistant Electrocatalysts for Proton Exchange Membrane Fuel Cell Cathodes. Electrocatalysis, 2015, 6, 521-533.	3.0	27
101	Nanoporous silver for electrocatalysis application in alkaline fuel cells. Materials and Design, 2016, 111, 528-536.	7.0	27
102	Activity and Durability of Platinum-Based Electrocatalysts Supported on Bare or Fluorinated Nanostructured Carbon Substrates. Journal of the Electrochemical Society, 2018, 165, F3346-F3358.	2.9	27
103	Electrooxidation of Ethanol at Room Temperature on Carbon-Supported Pt and Rh-Containing Catalysts: A DEMS Study. Journal of the Electrochemical Society, 2014, 161, F918-F924.	2.9	26
104	Comparative Methods for Gas Diffusivity and Solubility Determination in Extreme Media:Â Application to Molecular Oxygen in an Industrial Chlorineâ^'Soda Electrolyte. Industrial & Engineering Chemistry Research, 2000, 39, 3083-3089.	3.7	25
105	Local Degradations Resulting from Repeated Start-ups and Shut-downs in Proton Exchange Membrane Fuel Cell (PEMFC). Energy Procedia, 2012, 29, 318-324.	1.8	25
106	Ubiquitous Borane Fuel Electrooxidation on Pd/C and Pt/C Electrocatalysts: Toward Promising Direct Hydrazineâ€"Borane Fuel Cells. ACS Catalysis, 2018, 8, 3150-3163.	11.2	25
107	NiMnOx/C: A Non-noble Ethanol-Tolerant Catalyst for Oxygen Reduction in Alkaline Exchange Membrane DEFC. Electrocatalysis, 2014, 5, 41-49.	3.0	24
108	Stability of carbon-supported palladium nanoparticles in alkaline media: A case study of graphitized and more amorphous supports. Electrochemistry Communications, 2017, 78, 33-37.	4.7	24

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109	From Bad Electrochemical Practices to an Environmental and Waste Reducing Approach for the Generation of Active Hydrogen Evolving Electrodes. Angewandte Chemie - International Edition, 2019, 58, 17383-17392.	13.8	24
110	Electrochemical hydrogen compression and purification versus competing technologies: Part II. Challenges in electrocatalysis. Chinese Journal of Catalysis, 2020, 41, 770-782.	14.0	24
111	Borohydride electrooxidation reaction on Pt(111) and Pt(111) modified by a pseudomorphic Pd monolayer. Electrochimica Acta, 2016, 190, 790-796.	5.2	23
112	Pt Nanoparticles Supported on Niobium-Doped Tin Dioxide: Impact of the Support Morphology on Pt Utilization and Electrocatalytic Activity. Electrocatalysis, 2017, 8, 51-58.	3.0	22
113	Sb-Doped SnO₂Aerogels Based Catalysts for Proton Exchange Membrane Fuel Cells: Pt Deposition Routes, Electrocatalytic Activity and Durability. Journal of the Electrochemical Society, 2018, 165, F3036-F3044.	2.9	22
114	Electrochemical Strain Dynamics in Noble Metal Nanocatalysts. Journal of the American Chemical Society, 2021, 143, 17068-17078.	13.7	22
115	Electrochemical impedance spectroscopy study of borohydride oxidation reaction on goldâ€"Towards a mechanism with two electrochemical steps. Electrochimica Acta, 2010, 55, 9113-9124.	5.2	21
116	Nickel-underpotential deposition on Pt(110) in sulphate-containing media. Journal of Electroanalytical Chemistry, 2005, 580, 275-283.	3.8	20
117	Understanding aluminum behaviour in aqueous alkaline solution using coupled techniques. Electrochimica Acta, 2010, 55, 3454-3463.	5.2	20
118	Design of Pd-Pb Catalysts for Glycerol and Ethylene Glycol Electrooxidation in Alkaline Medium. Electrocatalysis, 2018, 9, 480-485.	3.0	20
119	Nanostructured Carbons as Platinum Catalyst Supports for Proton Exchange Membrane Fuel Cell Electrodes. Topics in Catalysis, 2009, 52, 2117-2122.	2.8	19
120	A preliminary study of sodium octahydrotriborate NaB3H8 as potential anodic fuel of direct liquid fuel cell. Journal of Power Sources, 2015, 286, 10-17.	7.8	19
121	Investigation of the electrochemical oxidation reaction of the borohydride anion in palladium layers on Pt(111). Electrochimica Acta, 2016, 209, 360-368.	5.2	19
122	Dual-layer catalyst layers for increased proton exchange membrane fuel cell performance. Journal of Power Sources, 2021, 514, 230574.	7.8	19
123	Instability Of Commercial Pt/C And Pd/C Electrocatalysts In Alkaline Media. ECS Transactions, 2015, 69, 553-558.	0.5	18
124	Determination of Aging Markers and their Use as a Tool to Characterize Pt/C Nanoparticles Degradation Mechanism in Model PEMFC Cathode Environment. ECS Transactions, 2011, 41, 697-708.	0.5	17
125	Tailoring membranes. Nature Energy, 2019, 4, 261-262.	39.5	17
126	Effect of Lithium and Potassium Cations on the Electrocatalytic Properties of Carbon and Manganese Oxide Electrocatalysts Towards the Oxygen Reduction Reaction in Concentrated Alkaline Electrolyte. Electrocatalysis, 2013, 4, 123-133.	3.0	16

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127	Utilization of graphitized and fluorinated carbon as platinum nanoparticles supports for application in proton exchange membrane fuel cell cathodes. Journal of Power Sources, 2018, 404, 28-38.	7.8	16
128	Operating heterogeneities within a direct borohydride fuel cell. Journal of Power Sources, 2019, 439, 227099.	7.8	16
129	Carbon-Supported PtNi Nanocrystals for Alkaline Oxygen Reduction and Evolution Reactions: Electrochemical Activity and Durability upon Accelerated Stress Tests. ACS Applied Energy Materials, 2020, 3, 8858-8870.	5.1	16
130	Bimetallic Pt or Pd-based carbon supported nanoparticles are more stable than their monometallic counterparts for application in membraneless alkaline fuel cell anodes. Applied Catalysis B: Environmental, 2022, 301, 120811.	20.2	16
131	The influence of mass-transport conditions on the ethanol oxidation reaction (EOR) mechanism of Pt/C electrocatalysts. Physical Chemistry Chemical Physics, 2016, 18, 25169-25175.	2.8	15
132	The highly stable aqueous solution of sodium dodecahydro- closo -dodecaborate Na 2 B 12 H 12 as a potential liquid anodic fuel. Applied Catalysis B: Environmental, 2018, 222, 1-8.	20.2	15
133	Electrochemical quartz crystal microbalance determination of nickel formal partial charge number during nickel-underpotential deposition on platinum in sulphate media. Electrochemistry Communications, 2007, 9, 1463-1468.	4.7	14
134	Electro-oxidation of Ethanol on Rh/Pt and Ru/Rh/Pt Sub-monolayers Deposited on Au/C Nanoparticles. Electrocatalysis, 2010, 1, 72-82.	3.0	14
135	Impact of the Anode Catalyst Layer Design on the Performance of H₂O₂-Direct Borohydride Fuel Cells. Journal of the Electrochemical Society, 2019, 166, F1218-F1228.	2.9	14
136	FeNi3 and Ni-Based Nanoparticles as Electrocatalysts for Magnetically Enhanced Alkaline Water Electrolysis. Electrocatalysis, 2020, 11, 567-577.	3.0	14
137	Insights into the borohydride electrooxidation reaction on metallic nickel from operando FTIRS, on-line DEMS and DFT. Electrochimica Acta, 2021, 389, 138721.	5.2	14
138	Understanding CO-stripping mechanism from NiUPD/Pt(110) in view of the measured nickel formal partial charge number upon underpotential deposition on platinum surfaces in sulphate media. Electrochimica Acta, 2007, 53, 369-376.	5.2	13
139	Tin dioxide coated carbon materials as an alternative catalyst support for PEMFCs: Impacts of the intrinsic carbon properties and the synthesis parameters on the coating characteristics. Microporous and Mesoporous Materials, 2018, 271, 1-15.	4.4	13
140	Durability of Alternative Metal Oxide Supports for Application at a Proton-Exchange Membrane Fuel Cell Cathodeâ€"Comparison of Antimony- and Niobium-Doped Tin Oxide. Energies, 2020, 13, 403.	3.1	13
141	Evidences of "Through-Plane" Heterogeneities of Aging in a Proton-Exchange Membrane Fuel Cell. ECS Electrochemistry Letters, 2012, 1, F13-F15.	1.9	12
142	Activity and Durability of Platinum-Based Electrocatalysts with Tin Oxideâ€"Coated Carbon Aerogel Materials as Catalyst Supports. Electrocatalysis, 2019, 10, 156-172.	3.0	12
143	Evaluation of carbon-supported palladium electrocatalysts for the borohydride oxidation reaction in conditions relevant to fuel cell operation. Electrochimica Acta, 2020, 341, 135971.	5.2	12
144	Improving zinc porous electrode for secondary alkaline batteries: Toward a simple design of optimized 3D conductive network current collector. Journal of Power Sources, 2020, 450, 227668.	7.8	12

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145	Anode aging in polymer electrolyte membrane fuel Cells I: Anode monitoring by ElectroChemical impedance spectroscopy. Journal of Power Sources, 2021, 481, 228908.	7.8	12
146	Direct borohydride fuel cells: A selected review of their reaction mechanisms, electrocatalysts, and influence of operating parameters on their performance. Current Opinion in Electrochemistry, 2022, 32, 100883.	4.8	12
147	Contribution of the Acoustic Emission Technique to Study Aluminum Behavior in Aqueous Alkaline Solution. Electrochemical and Solid-State Letters, 2005, 8, E53.	2.2	11
148	Pt Redistribution within PEMFC MEAs and its Consequence on their Performances. ECS Transactions, 2007, 11, 1203-1214.	0.5	11
149	Study of the Borohydride Oxidation Reaction on Gold in Alkaline Medium Using On-Line Mass Spectrometry. ECS Transactions, 2010, 25, 39-48.	0.5	10
150	Mass spectrometric investigation of ethanol and acetaldehyde adsorbates electrooxidation on Pt electrocatalyst. Electrochimica Acta, 2014, 141, 102-112.	5.2	10
151	Sodium Borohydride Oxidation on Pt and/or Pd-Based Electrodes in Hydrogen Peroxide Direct Borohydride Fuel Cells (H₂O₂-DBFCs). ECS Transactions, 2017, 80, 1033-1042.	0.5	10
152	Synthesis of metallic nanoparticles for heterogeneous catalysis: Application to the Direct Borohydride Fuel Cell. Applied Catalysis A: General, 2021, 618, 118117.	4.3	9
153	Using the Multiple SEA Method to Synthesize Pt/Carbon Xerogel Electrocatalysts for PEMFC Applications. Fuel Cells, 2014, 14, 343-349.	2.4	8
154	Cobalt porphyrin and Salcomine as novel redox shuttle species to enhance the oxygen evolution reaction in Li O2 batteries. Electrochimica Acta, 2018, 261, 384-393.	5.2	8
155	Oxygen Reduction Reaction on Metal and Nitrogenâ€“Doped Carbon Electrocatalysts in the Presence of Sodium Borohydride. Electrocatalysis, 2020, 11, 365-373.	3.0	8
156	Characterization of Uncoated Stainless Steel as Proton Exchange Membrane Fuel Cell Bipolar Plates Material. Fuel Cells, 2012, 12, 248-255.	2.4	7
157	A Faradaic impedance study of E-EAR reaction. Journal of Electroanalytical Chemistry, 2013, 696, 24-37.	3.8	7
158	Synthesis and functionalities of noble metal nanoparticles formed through simple all-inorganic photochemical procedures. Journal of Experimental Nanoscience, 2010, 5, 221-243.	2.4	6
159	Search for multi-functional catalysts: The electrooxidation of acetaldehyde on Platinumâ€“Rutheniumâ€“Rhodium electrodeposits. Journal of Electroanalytical Chemistry, 2011, 660, 85-90.	3.8	6
160	Impact of water adsorbates on the acetaldehyde oxidation reaction on Pt- and Rh-based multimetallic electrocatalysts. Electrochimica Acta, 2016, 188, 551-559.	5.2	6
161	Advances in tailoring the water content in porous carbon aerogels using RT-pulsed fluorination. Journal of Fluorine Chemistry, 2020, 238, 109633.	1.7	6
162	Anode defectsâ€™ propagation in polymer electrolyte membrane fuel cells. Journal of Power Sources, 2022, 520, 230880.	7.8	6

#	Article	IF	Citations
163	Origin of Surface Reduction upon Water Adsorption on Oriented NiO Thin Films and Its Relation to Electrochemical Activity. Journal of Physical Chemistry C, 2022, 126, 1303-1315.	3.1	6
164	Durability of Pt3Co/C Cathodes in a 16 Cells PEMFC Stack: Degradation Mechanisms and Modification of the ORR Electrocatalytic Activity. ECS Transactions, 2010, 33, 407-417.	0.5	5
165	Elaboration and Characterizations of Platinum Nanoparticles Supported on Cellulose-Based Carbon Aerogel. ECS Transactions, 2010, 33, 447-459.	0.5	5
166	The electrooxidation of acetaldehyde on platinumâ€“ruthenâ€“rhodium surfaces: A delicate balance between oxidation and carbonâ€“carbon bond breaking. Journal of Electroanalytical Chemistry, 2016, 765, 73-78.	3.8	5
167	Oxygen Reduction Reaction Electrocatalysis in Alkaline Electrolyte on Glassy-Carbon-Supported Nanostructured Pr6O11 Thin-Films. Catalysts, 2018, 8, 461.	3.5	5
168	First Report of Sugarcane Red Leaf Mottle Virus in Sudan.. Plant Disease, 1995, 79, 321.	1.4	5
169	Durability of the FeNi₃@Ni Material Designed for Water Electrolysis Enhanced by High Frequency Alternating Magnetic Field. ACS Applied Energy Materials, 2022, 5, 7034-7048.	5.1	5
170	Influence of PEMFC Operating Conditions on the Durability of Pt3Co/C Electrocatalysts. ECS Transactions, 2010, 33, 399-405.	0.5	4
171	Borohydride Oxidation on Pt-Based Electrodes: Evidence of Residence Time Effect on the Reaction Onset and Faradaic Efficiency. ECS Transactions, 2010, 33, 1693-1699.	0.5	4
172	Electrochemical Quartz Crystal Microbalance Determination of Nickel Formal Partial Charge Number as a Function of the Electrode Potential upon Nickel Underpotential Deposition on Platinum in Sulfuric Medium. Electrocatalysis, 2015, 6, 382-389.	3.0	4
173	First Report of Leaf Scald Disease and Ratoon Stunting Disease of Sugarcane in French Guyana. Plant Disease, 1997, 81, 696-696.	1.4	4
174	Synthesis and characterization of highly loaded Pt/carbon xerogel catalysts prepared by the Strong Electrostatic Adsorption method. Studies in Surface Science and Catalysis, 2010, 175, 169-176.	1.5	3
175	Borohydride Oxidation on Platinum Electrodes - Is Platinum Really a Faradaic Inefficient BOR Electrocatalyst. ECS Transactions, 2011, 41, 1719-1727.	0.5	3
176	Ultrafast Hydro-Micromechanical Synthesis of Calcium Zincate: Structural and Morphological Characterizations. Journal of Nanomaterials, 2017, 2017, 1-8.	2.7	3
177	From Bad Electrochemical Practices to an Environmental and Waste Reducing Approach for the Generation of Active Hydrogen Evolving Electrodes. Angewandte Chemie, 2019, 131, 17544-17553.	2.0	3
178	Improved Borohydride Oxidation Reaction Activity and Stability for Carbon-Supported Platinum Nanoparticles with Tantalum Oxyphosphate Interlayers. Journal of the Electrochemical Society, 2020, 167, 164508.	2.9	3
179	Heterogeneities of Aging Through-The-Plane of a Proton-Exchange Membrane Fuel Cell Cathode. ECS Transactions, 2011, 41, 827-836.	0.5	2
180	All at once: how electrochemistry can be used to design and access multiple compositions in a single sample. Journal of Materials Chemistry A, 2017, 5, 22641-22647.	10.3	2

#	Article	IF	Citations
181	Borohydride Oxidation Reaction (BOR) at Pt and Au Electrodes: From Experimental Insights to Mechanism and Kinetic Modeling. , 2018, , 384-392.		2
182	Proton Exchange Membrane Fuel Cell With Enhanced Durability Using Fluorinated Carbon As Electrocatalyst. E3S Web of Conferences, 2017, 16, 17001.	0.5	1
183	Insertion/Disinsertion of Hydrogen in Tailored Pd Layers Deposited on Pt(111) Surface in Alkaline and Acidic Medium. Electrocatalysis, 2018, 9, 258-263.	3.0	1
184	Improvement of the Borohydride Oxidation Reaction by Electrocatalysis on Pt/[TaOPO4/VC]. ECS Transactions, 2018, 86, 659-670.	0.5	1
185	One-pot synthesis of carbon-supported AuCo and AuNi nanoalloys for the oxygen reduction reaction in alkaline media. Materials Chemistry and Physics, 2022, 278, 125605.	4.0	1
186	Pt3Co Nanoparticles and Carbon to the Test of PEMFC Operation. ECS Transactions, 2013, 58, 937-943.	0.5	0