

# Frédéric M Maillard

## List of Publications by Year in descending order

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145  
papers

8,585  
citations

30070

54  
h-index

46799

89  
g-index

149  
all docs

149  
docs citations

149  
times ranked

7302  
citing authors

#	ARTICLE	IF	CITATIONS
1	Size effects on reactivity of Pt nanoparticles in CO monolayer oxidation: The role of surface mobility. <i>Faraday Discussions</i> , 2004, 125, 357.	3.2	394
2	Influence of particle agglomeration on the catalytic activity of carbon-supported Pt nanoparticles in CO monolayer oxidation. <i>Physical Chemistry Chemical Physics</i> , 2005, 7, 385-393.	2.8	386
3	Identification of durable and non-durable Fe <sub>x</sub> sites in Fe-N-C materials for proton exchange membrane fuel cells. <i>Nature Catalysis</i> , 2021, 4, 10-19.	34.4	368
4	Surface distortion as a unifying concept and descriptor in oxygen reduction reaction electrocatalysis. <i>Nature Materials</i> , 2018, 17, 827-833.	27.5	344
5	Carbon Corrosion in Proton-Exchange Membrane Fuel Cells: Effect of the Carbon Structure, the Degradation Protocol, and the Gas Atmosphere. <i>ACS Catalysis</i> , 2015, 5, 2184-2194.	11.2	318
6	A review of PEM fuel cell durability: materials degradation, local heterogeneities of aging and possible mitigation strategies. <i>Wiley Interdisciplinary Reviews: Energy and Environment</i> , 2014, 3, 540-560.	4.1	257
7	Ru-Decorated Pt Surfaces as Model Fuel Cell Electrocatalysts for CO Electrooxidation. <i>Journal of Physical Chemistry B</i> , 2005, 109, 16230-16243.	2.6	239
8	CO monolayer oxidation on Pt nanoparticles: Further insights into the particle size effects. <i>Journal of Electroanalytical Chemistry</i> , 2007, 599, 221-232.	3.8	218
9	Detection of Pt <sup>2+</sup> Ions and Pt Nanoparticles Inside the Membrane of a Used PEMFC. <i>Journal of the Electrochemical Society</i> , 2007, 154, B96.	2.9	217
10	Oxygen electroreduction on carbon-supported platinum catalysts. Particle-size effect on the tolerance to methanol competition. <i>Electrochimica Acta</i> , 2002, 47, 3431-3440.	5.2	196
11	Carbon Corrosion in Proton-Exchange Membrane Fuel Cells: From Model Experiments to Real-Life Operation in Membrane Electrode Assemblies. <i>ACS Catalysis</i> , 2014, 4, 2258-2267.	11.2	188
12	Membrane and Active Layer Degradation upon PEMFC Steady-State Operation. <i>Journal of the Electrochemical Society</i> , 2007, 154, B1106.	2.9	164
13	On the Influence of Oxygen on the Degradation of Fe-N-C Catalysts. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 3235-3243.	13.8	160
14	Infrared Spectroscopic Study of CO Adsorption and Electro-oxidation on Carbon-Supported Pt Nanoparticles: An Interparticle versus Intraparticle Heterogeneity. <i>Journal of Physical Chemistry B</i> , 2004, 108, 17893-17904.	2.6	141
15	Beyond Strain and Ligand Effects: Microstrain-Induced Enhancement of the Oxygen Reduction Reaction Kinetics on Various PtNi/C Nanostructures. <i>ACS Catalysis</i> , 2017, 7, 398-408.	11.2	140
16	On the Influence of Oxygen on the Degradation of Fe-N-C Catalysts. <i>Angewandte Chemie</i> , 2020, 132, 3261-3269.	2.0	133
17	Tuning the Performance and the Stability of Porous Hollow PtNi/C Nanostructures for the Oxygen Reduction Reaction. <i>ACS Catalysis</i> , 2015, 5, 5333-5341.	11.2	125
18	Degradation heterogeneities induced by repetitive start/stop events in proton exchange membrane fuel cell: Inlet vs. outlet and channel vs. land. <i>Applied Catalysis B: Environmental</i> , 2013, 138-139, 416-426.	20.2	124

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19	Further insights into the durability of Pt <sub>3</sub> Co/C electrocatalysts: Formation of hollow Pt nanoparticles induced by the Kirkendall effect. <i>Electrochimica Acta</i> , 2011, 56, 10658-10667.	5.2	118
20	Probing the structure, the composition and the ORR activity of Pt <sub>3</sub> Co/C nanocrystallites during a 3422h PEMFC ageing test. <i>Applied Catalysis B: Environmental</i> , 2013, 142-143, 801-808.	20.2	109
21	Defects do Catalysis: CO Monolayer Oxidation and Oxygen Reduction Reaction on Hollow PtNi/C Nanoparticles. <i>ACS Catalysis</i> , 2016, 6, 4673-4684.	11.2	107
22	Durability of Pt <sub>3</sub> Co/C nanoparticles in a proton-exchange membrane fuel cell: Direct evidence of bulk Co segregation to the surface. <i>Electrochemistry Communications</i> , 2010, 12, 1161-1164.	4.7	103
23	Physical and Chemical Considerations for Improving Catalytic Activity and Stability of Non-Precious-Metal Oxygen Reduction Reaction Catalysts. <i>ACS Catalysis</i> , 2018, 8, 11264-11276.	11.2	101
24	Nanoscale compositional changes and modification of the surface reactivity of Pt <sub>3</sub> Co/C nanoparticles during proton-exchange membrane fuel cell operation. <i>Electrochimica Acta</i> , 2010, 56, 776-783.	5.2	100
25	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. <i>Applied Catalysis B: Environmental</i> , 2016, 181, 672-680.	20.2	100
26	Degradation Mechanisms of Oxygen Evolution Reaction Electrocatalysts: A Combined Identical-Location Transmission Electron Microscopy and X-ray Photoelectron Spectroscopy Study. <i>ACS Catalysis</i> , 2019, 9, 4688-4698.	11.2	100
27	Synthesis and characterization of electrocatalysts for the oxygen evolution in PEM water electrolysis. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 10474-10481.	7.1	95
28	An identical-location transmission electron microscopy study on the degradation of Pt/C nanoparticles under oxidizing, reducing and neutral atmosphere. <i>Electrochimica Acta</i> , 2013, 110, 273-281.	5.2	95
29	Effect of the structure of Pt-Ru/C particles on COad monolayer vibrational properties and electrooxidation kinetics. <i>Electrochimica Acta</i> , 2007, 53, 811-822.	5.2	84
30	Determination of Electroactive Surface Area of Ni-, Co-, Fe-, and Ir-Based Oxide Electrocatalysts. <i>ACS Catalysis</i> , 2019, 9, 9222-9230.	11.2	80
31	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. <i>ACS Catalysis</i> , 2019, 9, 5613-5622.	11.2	80
32	Durability of Pt <sub>3</sub> Co/C Cathodes in a 16 Cell PEMFC Stack: Macro/Microstructural Changes and Degradation Mechanisms. <i>Journal of the Electrochemical Society</i> , 2010, 157, B1887.	2.9	79
33	Carbon corrosion induced by membrane failure: The weak link of PEMFC long-term performance. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 21902-21914.	7.1	75
34	Is carbon-supported Pt-WOx composite a CO-tolerant material?. <i>Electrochimica Acta</i> , 2007, 52, 1958-1967.	5.2	74
35	Insights into the mechanism of electrocatalysis of the oxygen reduction reaction by a porphyrinic metal organic framework. <i>Chemical Communications</i> , 2017, 53, 6496-6499.	4.1	73
36	Kinetic Modeling of COad Monolayer Oxidation on Carbon-Supported Platinum Nanoparticles. <i>Journal of Physical Chemistry B</i> , 2006, 110, 21028-21040.	2.6	70

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37	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. <i>Applied Catalysis B: Environmental</i> , 2017, 201, 381-390.	20.2	70
38	Selected Review of the Degradation of Pt and Pd-based Carbon-supported Electrocatalysts for Alkaline Fuel Cells: Towards Mechanisms of Degradation. <i>Fuel Cells</i> , 2018, 18, 229-238.	2.4	70
39	In situ infrared (FTIR) study of the mechanism of the borohydride oxidation reaction. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 11507.	2.8	69
40	The role of the support in CO <sub>ads</sub> monolayer electrooxidation on Pt nanoparticles: Pt/WO <sub>x</sub> vs. Pt/C. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 1182-1193.	2.8	69
41	Oxygen Evolution Reaction Activity and Stability Benchmarks for Supported and Unsupported IrO <sub>x</sub> Electrocatalysts. <i>ACS Catalysis</i> , 2021, 11, 4107-4116.	11.2	69
42	An EC-FTIR study on the catalytic role of Pt in carbon corrosion. <i>Electrochemistry Communications</i> , 2011, 13, 1109-1111.	4.7	68
43	Unique CO-tolerance of Pt-WO <sub>x</sub> materials. <i>Electrochemistry Communications</i> , 2009, 11, 651-654.	4.7	67
44	Porous Hollow PtNi/C Electrocatalysts: Carbon Support Considerations To Meet Performance and Stability Requirements. <i>ACS Catalysis</i> , 2018, 8, 893-903.	11.2	67
45	A Review on Recent Developments and Prospects for the Oxygen Reduction Reaction on Hollow Pt Alloy Nanoparticles. <i>ChemPhysChem</i> , 2018, 19, 1552-1567.	2.1	64
46	Highly-active Pd-Cu electrocatalysts for oxidation of ubiquitous oxygenated fuels. <i>Applied Catalysis B: Environmental</i> , 2016, 191, 76-85.	20.2	61
47	Implementing Structural Disorder as a Promising Direction for Improving the Stability of PtNi/C Nanoparticles. <i>ACS Catalysis</i> , 2017, 7, 3072-3081.	11.2	61
48	Top-Down Synthesis of Nanostructured Platinum-Lanthanide Alloy Oxygen Reduction Reaction Catalysts: Pt <sub>x</sub> Pr/C as an Example. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 5129-5135.	8.0	60
49	Impact of metal cations on the electrocatalytic properties of Pt/C nanoparticles at multiple phase interfaces. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 13000.	2.8	59
50	Highly active and selective nickel molybdenum catalysts for direct hydrazine fuel cell. <i>Electrochimica Acta</i> , 2016, 215, 420-426.	5.2	59
51	Oxygen reduction reaction mechanism and kinetics on M-N <sub>x</sub> C <sub>y</sub> and M@N-C active sites present in model M-N-C catalysts under alkaline and acidic conditions. <i>Journal of Solid State Electrochemistry</i> , 2021, 25, 45-56.	2.5	59
52	Efficient Pt/carbon electrocatalysts for proton exchange membrane fuel cells: Avoid chloride-based Pt salts!. <i>Journal of Power Sources</i> , 2013, 240, 294-305.	7.8	58
53	Carbon corrosion and platinum nanoparticles ripening under open circuit potential conditions. <i>Journal of Power Sources</i> , 2013, 230, 236-243.	7.8	56
54	Complexation and electrochemical sensing of anions by amide-substituted ferrocenyl ligands. <i>Journal of Organometallic Chemistry</i> , 2001, 637-639, 356-363.	1.8	54

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55	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. <i>Journal of Electroanalytical Chemistry</i> , 2007, 599, 111-120.	3.8	54
56	Atomic-scale structure and composition of Pt <sub>3</sub> Co/C nanocrystallites during real PEMFC operation: A STEM-EELS study. <i>Applied Catalysis B: Environmental</i> , 2014, 152-153, 300-308.	20.2	54
57	Fe-N-C Electrocatalysts™ Durability: Effects of Single Atoms™ Mobility and Clustering. <i>ACS Catalysis</i> , 2021, 11, 484-494.	11.2	53
58	Membrane and Active Layer Degradation Following PEMFC Steady-State Operation. <i>Journal of the Electrochemical Society</i> , 2007, 154, B1115.	2.9	51
59	Preparation of highly loaded Pt/carbon xerogel catalysts for Proton Exchange Membrane fuel cells by the Strong Electrostatic Adsorption method. <i>Catalysis Today</i> , 2010, 150, 119-127.	4.4	51
60	Title is missing!. <i>Journal of Applied Electrochemistry</i> , 2003, 33, 1-8.	2.9	50
61	Impact of ultra-low Pt loadings on the performance of anode/cathode in a proton-exchange membrane fuel cell. <i>Journal of Power Sources</i> , 2010, 195, 2737-2746.	7.8	50
62	Tailoring the Oxygen Reduction Activity of Pt Nanoparticles through Surface Defects: A Simple Top-Down Approach. <i>ACS Catalysis</i> , 2020, 10, 3131-3142.	11.2	50
63	Manipulating the Corrosion Resistance of SnO <sub>2</sub> Aerogels through Doping for Efficient and Durable Oxygen Evolution Reaction Electrocatalysis in Acidic Media. <i>ACS Catalysis</i> , 2020, 10, 7283-7294.	11.2	49
64	Reversibility of Pt-Skin and Pt-Skeleton Nanostructures in Acidic Media. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 434-439.	4.6	48
65	Electrooxidation of Carbon Monoxide at Ruthenium-Modified Platinum Nano-particles: Evidence for CO Surface Mobility. <i>Fuel Cells</i> , 2002, 2, 143-152.	2.4	44
66	Carbon Corrosion in Proton-Exchange Membrane Fuel Cells: Spectrometric Evidence for Pt-Catalysed Decarboxylation at Anode-Relevant Potentials. <i>ChemPhysChem</i> , 2019, 20, 3106-3111.	2.1	44
67	Palladium Supported on 3D Graphene as an Active Catalyst for Alcohols Electrooxidation. <i>Journal of the Electrochemical Society</i> , 2015, 162, F1305-F1309.	2.9	41
68	Atomic-Scale Snapshots of the Formation and Growth of Hollow PtNi/C Nanocatalysts. <i>Nano Letters</i> , 2017, 17, 2447-2453.	9.1	40
69	Evidences of the migration of Pt crystallites on high surface area carbon supports in the presence of reducing molecules. <i>Journal of Power Sources</i> , 2012, 217, 449-458.	7.8	39
70	Heterogeneities of Aging within a PEMFC MEA. <i>Fuel Cells</i> , 2012, 12, 188-198.	2.4	39
71	Beyond conventional electrocatalysts: hollow nanoparticles for improved and sustainable oxygen reduction reaction activity. <i>Journal of Materials Chemistry A</i> , 2014, 2, 18497-18507.	10.3	39
72	Unveiling the crucial role of temperature on the stability of oxygen reduction reaction electrocatalysts. <i>Electrochemistry Communications</i> , 2016, 63, 65-69.	4.7	39

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73	Insights into the stability of Pt nanoparticles supported on antimony-doped tin oxide in different potential ranges. <i>Electrochimica Acta</i> , 2017, 245, 993-1004.	5.2	37
74	The role of water in the degradation of Pt <sub>3</sub> Co/C nanoparticles: An Identical Location Transmission Electron Microscopy study in polymer electrolyte environment. <i>Applied Catalysis B: Environmental</i> , 2014, 156-157, 301-306.	20.2	36
75	Probing Surface Oxide Formation and Dissolution on/of Ir Single Crystals via X-ray Photoelectron Spectroscopy and Inductively Coupled Plasma Mass Spectrometry. <i>ACS Catalysis</i> , 2019, 9, 9859-9869.	11.2	36
76	Disclosing Pt-Bimetallic Alloy Nanoparticle Surface Lattice Distortion with Electrochemical Probes. <i>ACS Energy Letters</i> , 2020, 5, 162-169.	17.4	35
77	The (electro)catalyst   membrane interface in the Proton Exchange Membrane Fuel Cell: Similarities and differences with non-electrochemical Catalytic Membrane Reactors. <i>Catalysis Today</i> , 2010, 156, 76-86.	4.4	31
78	Synthesis and Properties of Platinum Nanocatalyst Supported on Cellulose-Based Carbon Aerogel for Applications in PEMFCs. <i>Journal of the Electrochemical Society</i> , 2011, 158, B779.	2.9	31
79	Building Practical Descriptors for Defect Engineering of Electrocatalytic Materials. <i>ACS Catalysis</i> , 2020, 10, 9046-9056.	11.2	30
80	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. <i>Journal of Materials Science</i> , 2009, 44, 6591-6600.	3.7	29
81	Accelerated Stress Tests of Pt/HSAC Electrocatalysts: an Identical-Location Transmission Electron Microscopy Study on the Influence of Intermediate Characterizations. <i>Electrocatalysis</i> , 2014, 5, 125-135.	3.0	27
82	Activity and Durability of Platinum-Based Electrocatalysts Supported on Bare or Fluorinated Nanostructured Carbon Substrates. <i>Journal of the Electrochemical Society</i> , 2018, 165, F3346-F3358.	2.9	27
83	Doped tin oxide aerogels as oxygen evolution reaction catalyst supports. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 24331-24341.	7.1	26
84	Imaging Heterogeneous Electrocatalyst Stability and Decoupling Degradation Mechanisms in Operating Hydrogen Fuel Cells. <i>ACS Energy Letters</i> , 2021, 6, 2742-2749.	17.4	26
85	Local Degradations Resulting from Repeated Start-ups and Shut-downs in Proton Exchange Membrane Fuel Cell (PEMFC). <i>Energy Procedia</i> , 2012, 29, 318-324.	1.8	25
86	Atomic-scale restructuring of hollow PtNi/C electrocatalysts during accelerated stress tests. <i>Catalysis Today</i> , 2016, 262, 146-154.	4.4	25
87	Effect of Atomic Vacancies on the Structure and the Electrocatalytic Activity of Pt-rich/C Nanoparticles: A Combined Experimental and Density Functional Theory Study. <i>ChemCatChem</i> , 2017, 9, 2324-2338.	3.7	23
88	Pt Nanoparticles Supported on Niobium-Doped Tin Dioxide: Impact of the Support Morphology on Pt Utilization and Electrocatalytic Activity. <i>Electrocatalysis</i> , 2017, 8, 51-58.	3.0	22
89	Sb-Doped SnO <sub>2</sub> Aerogels Based Catalysts for Proton Exchange Membrane Fuel Cells: Pt Deposition Routes, Electrocatalytic Activity and Durability. <i>Journal of the Electrochemical Society</i> , 2018, 165, F3036-F3044.	2.9	22
90	Disentangling the Degradation Pathways of Highly Defective PtNi/C Nanostructures – An Operando Wide and Small Angle X-ray Scattering Study. <i>ACS Catalysis</i> , 2019, 9, 160-167.	11.2	22

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91	Electrochemical transformation of Fe-N-C catalysts into iron oxides in alkaline medium and its impact on the oxygen reduction reaction activity. <i>Applied Catalysis B: Environmental</i> , 2022, 311, 121366.	20.2	22
92	Evidence of the Substrate Effect in Hydrogen Electroinsertion into Palladium Atomic Layers by Means of in Situ Surface X-ray Diffraction. <i>Langmuir</i> , 2009, 25, 4251-4255.	3.5	21
93	Design of Pd-Pb Catalysts for Glycerol and Ethylene Glycol Electrooxidation in Alkaline Medium. <i>Electrocatalysis</i> , 2018, 9, 480-485.	3.0	20
94	Size Effects in Electrocatalysis of Fuel Cell Reactions on Supported Metal Nanoparticles. , 0, , 507-566.		19
95	Elucidating the Mechanisms Driving the Aging of Porous Hollow PtNi/C Nanoparticles by Means of CO <sub>ads</sub> Stripping. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 25298-25307.	8.0	19
96	Highly dispersed Pt/C catalysts prepared by the Charge Enhanced Dry Impregnation method. <i>Applied Catalysis B: Environmental</i> , 2014, 150-151, 101-106.	20.2	18
97	Determination of Aging Markers and their Use as a Tool to Characterize Pt/C Nanoparticles Degradation Mechanism in Model PEMFC Cathode Environment. <i>ECS Transactions</i> , 2011, 41, 697-708.	0.5	17
98	Structure-Activity Relationships for the Oxygen Reduction Reaction in Porous Hollow PtNi/C Nanoparticles. <i>ChemElectroChem</i> , 2016, 3, 1591-1600.	3.4	16
99	Utilization of graphitized and fluorinated carbon as platinum nanoparticles supports for application in proton exchange membrane fuel cell cathodes. <i>Journal of Power Sources</i> , 2018, 404, 28-38.	7.8	16
100	Impact of ionomer structuration on the performance of bio-inspired noble-metal-free fuel cell anodes. <i>Chem Catalysis</i> , 2021, 1, 88-105.	6.1	14
101	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. <i>Microporous and Mesoporous Materials</i> , 2018, 271, 1-15.	4.4	13
102	Durability of Alternative Metal Oxide Supports for Application at a Proton-Exchange Membrane Fuel Cell Cathode-Comparison of Antimony- and Niobium-Doped Tin Oxide. <i>Energies</i> , 2020, 13, 403.	3.1	13
103	Evidences of "Through-Plane" Heterogeneities of Aging in a Proton-Exchange Membrane Fuel Cell. <i>ECS Electrochemistry Letters</i> , 2012, 1, F13-F15.	1.9	12
104	Pt Redistribution within PEMFC MEAs and its Consequence on their Performances. <i>ECS Transactions</i> , 2007, 11, 1203-1214.	0.5	11
105	Investigating the oxygen evolution reaction on Ir(111) electrode in acidic medium using conventional and dynamic electrochemical impedance spectroscopy. <i>Electrochimica Acta</i> , 2019, 320, 134536.	5.2	9
106	Using the Multiple SEA Method to Synthesize Pt/Carbon Xerogel Electrocatalysts for PEMFC Applications. <i>Fuel Cells</i> , 2014, 14, 343-349.	2.4	8
107	Oxygen Reduction Reaction on Metal and Nitrogen-Doped Carbon Electrocatalysts in the Presence of Sodium Borohydride. <i>Electrocatalysis</i> , 2020, 11, 365-373.	3.0	8
108	<i>In situ</i> synchrotron far-infrared spectromicroscopy of a copper electrode at grazing incidence angle. <i>Journal of Synchrotron Radiation</i> , 2007, 14, 446-448.	2.4	7

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109	A portable transfer chamber for electrochemical measurements on electrodes prepared in ultra-high vacuum. <i>Review of Scientific Instruments</i> , 2013, 84, 064101.	1.3	7
110	H electro-insertion into Pd/Pt(111) nanofilms: an original method for isotherm measurement coupled to in situ surface X-ray diffraction structural study. <i>Electrochimica Acta</i> , 2013, 112, 905-912.	5.2	7
111	Structure and Surface Reactivity of Ultra-Thin Pt/W(111) Films. <i>Electrocatalysis</i> , 2015, 6, 398-404.	3.0	7
112	SnO <sub>2</sub> Aerogels: Towards Performant and Stable PEMFC Catalyst Supports. <i>ECS Transactions</i> , 2015, 69, 1207-1220.	0.5	6
113	Durability of Pt <sub>3</sub> Co/C Cathodes in a 16 Cells PEMFC Stack: Degradation Mechanisms and Modification of the ORR Electrocatalytic Activity. <i>ECS Transactions</i> , 2010, 33, 407-417.	0.5	5
114	Elaboration and Characterizations of Platinum Nanoparticles Supported on Cellulose-Based Carbon Aerogel. <i>ECS Transactions</i> , 2010, 33, 447-459.	0.5	5
115	Approaches to Synthesize Carbon-Supported Platinum-Based Electrocatalysts for Proton-Exchange Membrane Fuel Cells. , 2013, , 407-428.		5
116	Influence of PEMFC Operating Conditions on the Durability of Pt <sub>3</sub> Co/C Electrocatalysts. <i>ECS Transactions</i> , 2010, 33, 399-405.	0.5	4
117	Synthesis and characterization of highly loaded Pt/carbon xerogel catalysts prepared by the Strong Electrostatic Adsorption method. <i>Studies in Surface Science and Catalysis</i> , 2010, 175, 169-176.	1.5	3
118	In situ synchrotron far infrared micro-spectroelectrochemistry with a grazing angle objective. <i>Infrared Physics and Technology</i> , 2008, 51, 446-449.	2.9	2
119	Heterogeneities of Aging Through-The-Plane of a Proton-Exchange Membrane Fuel Cell Cathode. <i>ECS Transactions</i> , 2011, 41, 827-836.	0.5	2
120	Basics of PEMFC Including the Use of Carbon-Supported Nanoparticles. , 2013, , 401-423.		2
121	(Invited) Porous Hollow PtNi/C Nanoparticles and Their Many Facets. <i>ECS Transactions</i> , 2017, 80, 731-741.	0.5	2
122	Towards comprehensive understanding of proton-exchange membrane fuel cells using high energy x-rays. <i>JPhys Energy</i> , 2021, 3, 031003.	5.3	2
123	Degradation of IrO <sub>x</sub> Nanoparticles Supported Onto Sb-Doped SnO <sub>2</sub> Aerogel Monitored By Dynamic Electrochemical Impedance Spectroscopy and Identical-Location TEM. <i>ECS Meeting Abstracts</i> , 2018, MA2018-01, 1668-1668.	0.0	1
124	Porous Hollow PtNi/C Electrocatalysts: Carbon Support Considerations to Meet Stability Requirements. <i>ECS Meeting Abstracts</i> , 2018, , .	0.0	1
125	Ru-Decorated Pt Surfaces as Model Fuel Cell Electrocatalysts for CO Electrooxidation. <i>ChemInform</i> , 2005, 36, no.	0.0	0
126	Oxygen-Induced Formation of Nanopyramids on W(111). <i>Advanced Materials Research</i> , 0, 324, 109-112.	0.3	0



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127	Pt3Co Nanoparticles and Carbon to the Test of PEMFC Operation. ECS Transactions, 2013, 58, 937-943.	0.5	0
128	Tools and Electrochemical In Situ and On-Line Characterization Techniques for Nanomaterials. , 2018, , 383-439.		0
129	(Invited) Benchmarking Oxygen Evolution Reaction Activity and Stability of Unsupported and Supported IrOx Nanoparticles. ECS Meeting Abstracts, 2021, MA2021-01, 1920-1920.	0.0	0
130	Anodic Reactions in Electrocatalysis - Oxidation of Carbon Monoxide. , 2014, , 93-100.		0
131	Microstrained PtNi/C Nanostructures As Highly Active Electrocatalysts for Electrooxidation and Electroreduction Reactions. ECS Meeting Abstracts, 2017, , .	0.0	0
132	Formation and Growth of Hollow PtNi/C Nanocatalysts for the Oxygen Reduction Reaction. ECS Meeting Abstracts, 2017, , .	0.0	0
133	Implementing Structural Defects As a New Direction to Improve the Durability of Pt-Based/C Nanoparticles. ECS Meeting Abstracts, 2017, , .	0.0	0
134	(Invited) Porous Hollow PtNi/C Nanoparticles and Their Many Facets. ECS Meeting Abstracts, 2017, , .	0.0	0
135	Electrochemical Stability of Pt Nanoparticles Supported on a Wide Library of Carbon Supports, Either Used Bare, or Modified By Fluorination or Tin Oxide Deposits. ECS Meeting Abstracts, 2018, , .	0.0	0
136	Instability and Degradation Mechanism of Platinum-Group Metal (PGM)-Based Carbon Supported Electrocatalysts in Alkaline Medium. ECS Meeting Abstracts, 2018, , .	0.0	0
137	Platinum-Based PEMFC Electrodes “ Can Electrodes with Low Pt Loading be Durable?. ECS Meeting Abstracts, 2018, , .	0.0	0
138	Unveiling the Degradation Pathway of Highly Defective Hollow PtNi/C in Operando Conditions. ECS Meeting Abstracts, 2018, , .	0.0	0
139	Oxygen Evolution Reaction Investigation on Pt(111) and Ir(111) Using Dynamic Electrochemical Impedance Spectroscopy in Acidic Medium. ECS Meeting Abstracts, 2018, , .	0.0	0
140	Durability of Platinum-Based Carbon-Supported Electrocatalysts in Liquid Versus Solid Polymer Alkaline Electrolytes. ECS Meeting Abstracts, 2018, , .	0.0	0
141	(Keynote) Benefits and Limitations of Metal-Oxide Supports in Proton-Exchange Membrane Fuel Cells and Water Electrolyzers. ECS Meeting Abstracts, 2019, , .	0.0	0
142	(Invited) Promoting Surface Distortion for Improved Fuel Cell Electrocatalysis. ECS Meeting Abstracts, 2019, , .	0.0	0
143	Iron-Nitrogen-Carbon (Fe-N-C) Active Sites Imaging By Scanning Transmission Electron Microscopy (STEM). ECS Meeting Abstracts, 2019, , .	0.0	0
144	(Invited) Assessing Corrosion Resistance of Antimony-, Niobium- and Tantalum-Doped Tin Oxide Aerogels As Oxygen Evolution Reaction Catalyst Supports in Acidic Media. ECS Meeting Abstracts, 2020, MA2020-01, 2798-2798.	0.0	0

#	ARTICLE	IF	CITATIONS
145	(Invited) Benchmarking Oxygen Evolution Reaction Activity and Stability of Unsupported and Supported IrO <sub>x</sub> Nanoparticles. ECS Meeting Abstracts, 2022, MA2022-01, 1754-1754.	0.0	0