

Luigi Osmieri

List of Publications by Year in descending order

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44
papers

1,531
citations

331670

21
h-index

454955

30
g-index

45
all docs

45
docs citations

45
times ranked

1904
citing authors

#	ARTICLE	IF	CITATIONS
1	Performance of a Fe-N-C catalyst for the oxygen reduction reaction in direct methanol fuel cell: Cathode formulation optimization and short-term durability. <i>Applied Catalysis B: Environmental</i> , 2017, 201, 253-265.	20.2	152
2	Kinetics of Oxygen Electroreduction on Me-N-C (Me = Fe, Co, Cu) Catalysts in Acidic Medium: Insights on the Effect of the Transition Metal. <i>Journal of Physical Chemistry C</i> , 2017, 121, 17796-17817.	3.1	128
3	Fe-N/C catalysts for oxygen reduction reaction supported on different carbonaceous materials. Performance in acidic and alkaline direct alcohol fuel cells. <i>Applied Catalysis B: Environmental</i> , 2017, 205, 637-653.	20.2	115
4	H ₂ -rich syngas production through mixed residual biomass and HDPE waste via integrated catalytic gasification and tar cracking plus bio-char upgrading. <i>Chemical Engineering Journal</i> , 2017, 308, 578-587.	12.7	78
5	Recent trends on the application of PGM-free catalysts at the cathode of anion exchange membrane fuel cells. <i>Current Opinion in Electrochemistry</i> , 2018, 9, 240-256.	4.8	75
6	Transition Metal-Nitrogen-Carbon (Me-N-C) Catalysts for Oxygen Reduction Reaction. Insights on Synthesis and Performance in Polymer Electrolyte Fuel Cells. <i>ChemEngineering</i> , 2019, 3, 16.	2.4	75
7	Activity of Co-N multi walled carbon nanotubes electrocatalysts for oxygen reduction reaction in acid conditions. <i>Journal of Power Sources</i> , 2015, 278, 296-307.	7.8	73
8	Influence of different transition metals on the properties of Me-N-C (Me=Fe, Co, Cu, Zn) catalysts synthesized using SBA-15 as tubular nano-silica reactor for oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 22570-22588.	7.1	67
9	Elucidation of Fe-N-C electrocatalyst active site functionality via in-situ X-ray absorption and operando determination of oxygen reduction reaction kinetics in a PEFC. <i>Applied Catalysis B: Environmental</i> , 2019, 257, 117929.	20.2	61
10	Utilizing ink composition to tune bulk-electrode gas transport, performance, and operational robustness for a Fe-N-C catalyst in polymer electrolyte fuel cell. <i>Nano Energy</i> , 2020, 75, 104943.	16.0	60
11	Application of a non-noble Fe-N-C catalyst for oxygen reduction reaction in an alkaline direct ethanol fuel cell. <i>Renewable Energy</i> , 2018, 115, 226-237.	8.9	54
12	Durability evaluation of a Fe-N-C catalyst in polymer electrolyte fuel cell environment via accelerated stress tests. <i>Nano Energy</i> , 2020, 78, 105209.	16.0	54
13	Status and challenges for the application of platinum group metal-free catalysts in proton-exchange membrane fuel cells. <i>Current Opinion in Electrochemistry</i> , 2021, 25, 100627.	4.8	54
14	Varying the morphology of Fe-N-C electrocatalysts by templating Iron Phthalocyanine precursor with different porous SiO ₂ to promote the Oxygen Reduction Reaction. <i>Electrochimica Acta</i> , 2015, 177, 43-50.	5.2	51
15	Polypyrrole-Derived Fe-Co-N-C Catalyst for the Oxygen Reduction Reaction: Performance in Alkaline Hydrogen and Ethanol Fuel Cells. <i>ChemElectroChem</i> , 2018, 5, 1954-1965.	3.4	49
16	Standardized protocols for evaluating platinum group metal-free oxygen reduction reaction electrocatalysts in polymer electrolyte fuel cells. <i>Nature Catalysis</i> , 2022, 5, 455-462.	34.4	47
17	Performance analysis of Fe-N-C catalyst for DMFC cathodes: Effect of water saturation in the cathodic catalyst layer. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 22605-22618.	7.1	42
18	Effects of using two transition metals in the synthesis of non-noble electrocatalysts for oxygen reduction reaction in direct methanol fuel cell. <i>Electrochimica Acta</i> , 2018, 266, 220-232.	5.2	37

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19	The use of different types of reduced graphene oxide in the preparation of Fe-N-C electrocatalysts: capacitive behavior and oxygen reduction reaction activity in alkaline medium. <i>Journal of Solid State Electrochemistry</i> , 2016, 20, 3507-3523.	2.5	34
20	Optimization of a Fe-N-C electrocatalyst supported on mesoporous carbon functionalized with polypyrrole for oxygen reduction reaction under both alkaline and acidic conditions. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 19610-19628.	7.1	34
21	Morphology and dispersion of nanostructured manganese-cobalt spinel on various carbon supports: the effect on the oxygen reduction reaction in alkaline media. <i>Catalysis Science and Technology</i> , 2018, 8, 642-655.	4.1	28
22	The Use of C-MnO ₂ as Hybrid Precursor Support for a Pt/C-Mn _x O _{1+x} Catalyst with Enhanced Activity for the Methanol Oxidation Reaction (MOR). <i>Catalysts</i> , 2015, 5, 1399-1416.	3.5	23
23	Use of a segmented cell for the combinatorial development of platinum group metal-free electrodes for polymer electrolyte fuel cells. <i>Journal of Power Sources</i> , 2020, 452, 227829.	7.8	21
24	Electron and proton conductivity of Fe-N-C cathodes for PEM fuel cells: A model-based electrochemical impedance spectroscopy measurement. <i>Electrochemistry Communications</i> , 2020, 118, 106795.	4.7	19
25	Elucidating the Role of Ionomer in the Performance of Platinum Group Metal-free Catalyst Layer via in situ Electrochemical Diagnostics. <i>Journal of the Electrochemical Society</i> , 2020, 167, 044519.	2.9	19
26	Impact of Fabrication and Testing Parameters on the Performance of a Polymer Electrolyte Fuel Cell with Platinum Group Metal (PGM)-Free Cathode Catalyst. <i>Journal of the Electrochemical Society</i> , 2021, 168, 014503.	2.9	16
27	Recent advances in integrating platinum group metal-free catalysts in proton exchange membrane fuel cells. <i>Current Opinion in Electrochemistry</i> , 2022, 31, 100847.	4.8	15
28	Continuous biodiesel production in supercritical two-step process: phase equilibrium and process design. <i>Journal of Supercritical Fluids</i> , 2017, 124, 57-71.	3.2	11
29	Stability of Atomically Dispersed Fe-N-C ORR Catalyst in Polymer Electrolyte Fuel Cell Environment. <i>Journal of the Electrochemical Society</i> , 2021, 168, 024513.	2.9	10
30	Non-noble Metal (NNM) Catalysts for Fuel Cells: Tuning the Activity by a Rational Step-by-Step Single Variable Evolution. , 2016, , 69-101.		8
31	Binary interaction parameters from reacting mixture data. Supercritical biodiesel process with CO ₂ as cosolvent. <i>Journal of Supercritical Fluids</i> , 2019, 143, 107-119.	3.2	8
32	Operando Determination of Oxygen Reduction Reaction Kinetics on PGM-Free Electrocatalysts in a PEFC. <i>ECS Meeting Abstracts</i> , 2018, , .	0.0	0
33	(Invited) Activity and Stability of Atomically Dispersed (AD) Fe-C-N ORR Catalyst in Polymer Electrolyte Fuel Cell Environment. <i>ECS Meeting Abstracts</i> , 2019, , .	0.0	0
34	PGM-Free Electrode Development and Optimization Using H ₂ Limiting Current. <i>ECS Meeting Abstracts</i> , 2019, , .	0.0	0
35	Use of a Segmented Cell for the Development of PGM-Free Cathode Catalyst Layers for Polymer Electrolyte Fuel Cells. <i>ECS Meeting Abstracts</i> , 2019, , .	0.0	0
36	Engineering PGM-Free Electrodes to Facilitate Improved Performance for the Oxygen Reduction Reaction in Polymer Electrolyte Fuel Cells. <i>ECS Meeting Abstracts</i> , 2019, , .	0.0	0

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37	Electron Microscopy Study of Degradation Mechanisms in Platinum Group Metal-Free Catalysts. ECS Meeting Abstracts, 2019, , .	0.0	0
38	Electrode Layer Development and in Situ Diagnostic Characterization in Low Temperature Fuel Cells. ECS Meeting Abstracts, 2019, , .	0.0	0
39	(Invited) PEFC Electrode Layer Development Via Complementary in Situ Diagnostics and Ex Situ Characterization. ECS Meeting Abstracts, 2019, , .	0.0	0
40	Standardized Protocols for Platinum Group Metal-Free Fuel Cell Catalysts for Oxygen Reduction Reaction. ECS Meeting Abstracts, 2021, MA2021-02, 1149-1149.	0.0	0
41	(Invited) Linking Ionomer/Electrocatalyst Interactions to Membrane Electrode Assembly Performance and Durability in Proton Exchange Membrane Fuel Cells. ECS Meeting Abstracts, 2021, MA2021-02, 1047-1047.	0.0	0
42	The Effect of Dispersion-Medium Composition and Ionomer Concentration on the Microstructure and Rheology of Fe-N-C Platinum Group Metal-Free Catalyst Inks for Polymer Electrolyte Membrane Fuel Cells. ECS Meeting Abstracts, 2020, MA2020-02, 2217-2217.	0.0	0
43	Grooved Electrodes to Enhance Mass Transport in Thick Platinum Group Metal-Free Fuel Cell Cathodes. ECS Meeting Abstracts, 2022, MA2022-01, 1459-1459.	0.0	0
44	(Invited, Digital Presentation) La-Sr-Co Oxide Catalysts for Oxygen Evolution Reaction in Anion Exchange Membrane Water Electrolyzers: The Role of Electrode Fabrication on Performance and Durability. ECS Meeting Abstracts, 2022, MA2022-01, 1718-1718.	0.0	0