

Javier Rodríguez-Varela

List of Publications by Year in descending order

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90
papers

1,120
citations

394286

19
h-index

501076

28
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92
all docs

92
docs citations

92
times ranked

1394
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrochemical and in situ FTIR study of the ethanol oxidation reaction on PtMo/C nanomaterials in alkaline media. <i>Applied Catalysis B: Environmental</i> , 2017, 203, 654-662.	10.8	58
2	Innovative functionalization of Vulcan XC-72 with Ru organometallic complex: Significant enhancement in catalytic activity of Pt/C electrocatalyst for the methanol oxidation reaction (MOR). <i>Applied Catalysis B: Environmental</i> , 2017, 209, 455-467.	10.8	57
3	Preparation and characterization of Pt-CeO ₂ and Pt-Pd electrocatalysts for the oxygen reduction reaction in the absence and presence of methanol in alkaline medium. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 12657-12666.	3.8	54
4	Novel self-nitrogen-doped porous carbon from waste leather as highly active metal-free electrocatalyst for the ORR. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 23409-23416.	3.8	48
5	Fast synthesis and electrocatalytic activity of M@Pt (M=Ag, Fe ₃ O ₄ , Pd) core-shell nanostructures for the oxidation of ethanol and methanol. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 12681-12688.	3.8	42
6	Electrocatalysts for ethanol and ethylene glycol oxidation reactions. Part I: Effects of the polyol synthesis conditions on the characteristics and catalytic activity of Pt-Sn/C anodes. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 16676-16685.	3.8	37
7	Electrocatalysis of the Ethylene glycol oxidation reaction and in situ Fourier-transform infrared study on PtMo/C electrocatalysts in alkaline and acid media. <i>Journal of Power Sources</i> , 2018, 375, 335-344.	4.0	37
8	Catalytic activity and selectivity for the ORR of rapidly synthesized M@Pt (M=Ag, Fe ₃ O ₄ , Ru) core-shell nanostructures. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 16706-16714.	3.8	34
9	Mo-Ru-W chalcogenide electrodes prepared by chemical synthesis and screen printing for fuel cell applications. <i>International Journal of Hydrogen Energy</i> , 1998, 23, 1031-1035.	3.8	31
10	Ethanol-tolerant Pt alloy cathodes for direct ethanol fuel cell (DEFC) applications. <i>Asia-Pacific Journal of Chemical Engineering</i> , 2009, 4, 17-24.	0.8	28
11	Portland cement-blast furnace slag mortars activated using waterglass: Effect of temperature and alkali concentration. <i>Construction and Building Materials</i> , 2014, 66, 323-328.	3.2	28
12	Pt nanoparticles supported on NiTiO ₃ /C as electrocatalyst towards high performance Methanol Oxidation Reaction. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 9795-9805.	3.8	27
13	Easy synthesis of N-doped graphene by milling exfoliation with electrocatalytic activity towards the Oxygen Reduction Reaction (ORR). <i>International Journal of Hydrogen Energy</i> , 2017, 42, 30383-30388.	3.8	26
14	Evaluation of Pt ₄₀ Pd ₆₀ /MWCNT electrocatalyst as ethylene glycol-tolerant oxygen reduction cathodes. <i>Electrochemistry Communications</i> , 2009, 11, 1414-1417.	2.3	25
15	Evaluation of the Nickel Titanate-Modified Pt Nanostructured Catalyst for the ORR in Alkaline Media. <i>Journal of the Electrochemical Society</i> , 2016, 163, F16-F24.	1.3	24
16	Simulation of a solar-hydrogen-fuel cell system: results for different locations in Mexico. <i>International Journal of Hydrogen Energy</i> , 1998, 23, 1005-1009.	3.8	22
17	Pt-Ru-NiTiO ₃ Nanoparticles Dispersed on Vulcan as High Performance Electrocatalysts for the Methanol Oxidation Reaction (MOR). <i>Electrocatalysis</i> , 2018, 9, 582-592.	1.5	21
18	Evaluation of the novel Pd CeO ₂ -NR electrocatalyst supported on N-doped graphene for the Oxygen Reduction Reaction and its use in a Microbial Fuel Cell. <i>Journal of Power Sources</i> , 2019, 414, 103-114.	4.0	21

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19	Electrophoretic deposition of polypyrrole/Vulcan XC-72 corrosion protection coatings on SS-304 bipolar plates by asymmetric alternating current for PEM fuel cells. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 16740-16749.	3.8	20
20	Effect of OMC and MWNTC support on mass activity of Pd Co catalyst for formic acid electro-oxidation. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 30349-30358.	3.8	20
21	Catalytic Activity of Carbon-Supported Electrocatalysts for Direct Ethanol Fuel Cell Applications. <i>Journal of the Electrochemical Society</i> , 2008, 155, B618.	1.3	19
22	Electrocatalysts for ethanol and ethylene glycol oxidation reactions. Part II: Effects of the polyol synthesis conditions on the characteristics and catalytic activity of Pt/Ru/C anodes. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 17291-17299.	3.8	19
23	Oxygen ion conducting pyrochlore oxides prepared by an ultrasound-assisted wet chemistry route: Ca-doped Gd ₂ Ti ₂ O ₇ nanocrystals. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 12515-12524.	3.8	17
24	Real-Time Mass Spectrometric Analysis of the Anode Exhaust Gases of a Direct Propane Fuel Cell. <i>Journal of the Electrochemical Society</i> , 2005, 152, A1755.	1.3	16
25	Low-cost sonochemical synthesis of nitrogen-doped graphene metal-free electrocatalyst for the oxygen reduction reaction in alkaline media. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 30330-30338.	3.8	16
26	Short communication: Onion skin waste-derived biocarbon as alternative non-noble metal electrocatalyst towards ORR in alkaline media. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 12409-12414.	3.8	16
27	Insight into the performance and stability of N-doped Ordered Mesoporous Carbon Hollow Spheres for the ORR: Influence of the nitrogen species on their catalytic activity after ADT. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 26087-26100.	3.8	16
28	Symmetric Supercapacitors of PANI Coated RuO ₂ /TiO ₂ Macroporous Structures Prepared by Electrostatic Spray Deposition. <i>Journal of the Electrochemical Society</i> , 2022, 169, 020564.	1.3	15
29	Template-free synthesis of ordered mesoporous carbon: Application as support of highly active Pt nanoparticles for the oxidation of organic fuels. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 3387-3398.	3.8	14
30	Corrosion Resistance of Anodic Layers Grown on 304L Stainless Steel at Different Anodizing Times and Stirring Speeds. <i>Coatings</i> , 2019, 9, 706.	1.2	14
31	An Easy Route to Synthesize Novel Fe ₃ O ₄ @Pt Core-shell Nanostructures with High Electrocatalytic Activity. <i>Journal of New Materials for Electrochemical Systems</i> , 2012, 15, 171-179.	0.3	14
32	The Effect of TiO ₂ on the Catalytic Activity of a PtRu/C Catalyst for Methanol Oxidation. <i>Electrocatalysis</i> , 2014, 5, 387-395.	1.5	13
33	Enhanced catalytic activity of supported nanostructured Pd for the oxidation of organic molecules using γ -Fe ₂ O ₃ and Fe ₃ O ₄ as co-electrocatalysts. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 30301-30309.	3.8	13
34	Performance and In-situ FTIR Evaluation of Pt _x Sn _y /C Electrocatalysts with Several Pt%:Sn Atomic Ratios for the Ethanol Oxidation Reaction in Acidic Media. <i>ChemElectroChem</i> , 2018, 5, 3540-3547.	1.7	13
35	Functionalizing Reduced Graphene Oxide with Ru Organometallic Compounds as an Effective Strategy to Produce High-performance Pt Nanocatalysts for the Methanol Oxidation Reaction. <i>ChemElectroChem</i> , 2019, 6, 4902-4916.	1.7	13
36	Converting chicken manure into highly active N-P co-doped metal-free biocarbon electrocatalysts: effect of chemical treatment on their catalytic activity for the ORR. <i>Sustainable Energy and Fuels</i> , 2019, 3, 1307-1316.	2.5	13

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37	High performance of the novel Pd CeO ₂ -NR/C (cerium oxide nanorods) nanocatalyst for the oxidation of C1, C2 and C3 organic molecules for fuel cells applications. International Journal of Hydrogen Energy, 2019, 44, 12415-12420.	3.8	13
38	Communicationâ€”Synthesis of Self-Doped Metal-Free Electrocatalysts from Waste Leather with High ORR Activity. Journal of the Electrochemical Society, 2016, 163, H15-H17.	1.3	12
39	High Performance Pd-CeO ₂ -NR Supported on Graphene and N-Doped Graphene for the ORR and Its Application in a Microbial Fuel Cell. ECS Transactions, 2017, 77, 1359-1365.	0.3	12
40	Bifunctional Pd-CeO ₂ Nanorods/C Nanocatalyst with High Electrochemical Stability and Catalytic Activity for the ORR and EOR in Alkaline Media. ChemistrySelect, 2020, 5, 14032-14040.	0.7	12
41	Pt-CeO _x /MWCNT electrocatalysts as ethanol-tolerant ORR cathodes for Direct Alcohol Fuel Cells. Journal of New Materials for Electrochemical Systems, 2011, 14, 75-80.	0.3	12
42	Overview: Current trends in green electrochemical energy conversion and storage. Journal of Materials Research, 2021, 36, 4071-4083.	1.2	12
43	Palladium-Alloy Catalysts as Ethanol Tolerant Cathodes for Direct Alcohol Fuel Cell (DEFC) Applications. ECS Transactions, 2006, 1, 247-254.	0.3	11
44	MoxSe _y -(CO) _n electrocatalyst prepared by screen-printing and sintering. International Journal of Hydrogen Energy, 2000, 25, 243-247.	3.8	10
45	Synthesis and Evaluation of Highly Tolerant Pd Electrocatalysts as Cathodes in Direct Ethylene Glycol Fuel Cells (DEGFC). Energies, 2009, 2, 944-956.	1.6	10
46	Study of the electrophoretic deposition copper-carbon nanotubes composite coatings in deep eutectic solvent using a Taguchi experimental design approach. Advances in Applied Ceramics, 2018, 117, 461-467.	0.6	9
47	Evaluation of supported and unsupported Pd-CeO ₂ nanostructured anode electrocatalysts for the formic acid and the glycerol oxidation reactions in acid media. Journal of Applied Electrochemistry, 2015, 45, 1195-1204.	1.5	8
48	Significant promotion effect of Fe ₃ O ₄ on the mass catalytic activity of Pd nanocatalyst for the formic acid oxidation reaction. International Journal of Hydrogen Energy, 2017, 42, 30284-30290.	3.8	8
49	Development of MoxRuySez(CO) _n electrocatalysts by screen printing and sintering for fuel cell applications. Surface Engineering, 2000, 16, 43-46.	1.1	7
50	Ethanol-Tolerant Oxygen Reduction Reaction (ORR) Cathodes for Direct Ethanol Fuel Cell Applications. ECS Transactions, 2006, 1, 331-338.	0.3	6
51	Evaluation of Order Mesoporous Carbon as Anode Catalyst for Microbial Fuel Cells Applications. ECS Transactions, 2017, 77, 1351-1357.	0.3	6
52	High Performance Pt Nanocatalysts for the Oxidation of Methanol and Ethanol in Acid Media by Effect of Functionalizing Carbon Supports with Ru Organometallic Compounds. Journal of the Electrochemical Society, 2020, 167, 164502.	1.3	6
53	Synthesis of Unsupported Pt-based Electrocatalysts and Evaluation of Their Catalytic Activity for the Ethylene Glycol Oxidation Reaction. Journal of New Materials for Electrochemical Systems, 2013, 16, 171-176.	0.3	6
54	Highly Active Pd-CeO ₂ -NR/C (Cerium Oxide Nanorods) Bifunctional Nanocatalysts with Remarkable Stability for the Ethanol Oxidation and Oxygen Reduction Reactions in Alkaline Media. ECS Transactions, 2019, 92, 671-678.	0.3	5

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55	Catalytic activity of Pt@CoTiO ₃ nanocatalysts supported on reduced graphene oxide functionalized with Cr organometallic compounds for the oxygen reduction reaction. <i>Journal of Materials Research</i> , 0, , 1.	1.2	5
56	Sulfur doped biocarbon obtained from <i>Sargassum</i> spp. for the oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 30172-30177.	3.8	5
57	Enhanced Catalytic Activity for the Ethanol Oxidation Reaction (EOR) using Novel Pt-Fe ₃ O ₄ /MWCNT Bimetallic Electrocatalyst. <i>Journal of New Materials for Electrochemical Systems</i> , 2014, 17, 067-070.	0.3	4
58	Surface Functionalization of Ordered Mesoporous Hollow Carbon Spheres with Ru Organometallic Compounds as Supports of Low-Pt Content Nanocatalysts for Alkaline Hydrogen and Oxygen Evolution Reactions. <i>MRS Advances</i> , 2020, 5, 2973-2989.	0.5	4
59	Enhanced catalytic activity of low-Pt content nanocatalysts supported on hollow carbon spheres for the ORR in alkaline media. <i>MRS Advances</i> , 2020, 5, 2961-2972.	0.5	4
60	Electrochemical Characterization of Pt Nanocatalysts Supported on Functionalized Vulcan XC-72 for the EOR. <i>ECS Transactions</i> , 2014, 61, 11-18.	0.3	3
61	Synthesis of Metal-Free Electrocatalyst Obtained from Different Biomass Sources with High Performance for Oxygen Reduction Reaction in Fuel Cells. <i>ECS Transactions</i> , 2016, 75, 1035-1040.	0.3	3
62	Introduction: Low-Temperature Fuel Cells. , 2018, , 1-49.		3
63	Bioanodes containing catalysts from onion waste and <i>Bacillus subtilis</i> for energy generation from pharmaceutical wastewater in a microbial fuel cell. <i>New Journal of Chemistry</i> , 2021, 45, 12634-12646.	1.4	3
64	Understanding the Nature of the Manganese Hot Dip Phosphatizing Process of Steel. <i>Journal of the Mexican Chemical Society</i> , 2017, 57, .	0.2	3
65	Electrospun CoFe ₂ O ₄ nanofibers as bifunctional nanocatalysts for the oxygen evolution and oxygen reduction reactions in alkaline media. <i>MRS Advances</i> , 2020, 5, 2929-2937.	0.5	3
66	Deposition of Vulcan XC-72 Coatings on Stainless Steel Bipolar Plates by Reverse Pulsed DC Voltage Electrophoretic Deposition (EPD) for Fuel Cell Applications. <i>ECS Transactions</i> , 2014, 58, 33-43.	0.3	2
67	Synthesis and Characterization of Nitrogen-Doped Ordered Mesoporous Hollow Carbon Spheres for the ORR. <i>ECS Transactions</i> , 2018, 86, 595-602.	0.3	2
68	Energy Generation from Pharmaceutical Residual Water in Microbial Fuel Cells Using Ordered Mesoporous Carbon and <i>Bacillus subtilis</i> as Bioanode. <i>ACS Sustainable Chemistry and Engineering</i> , 0, , .	3.2	2
69	Electrochemical Behavior of Ru-based Electrocatalysts for the ORR in the Presence of C ₂ H ₅ OH. <i>ECS Transactions</i> , 2008, 15, 11-16.	0.3	1
70	Highly Active Pt-Sn/C Catalysts for Ethanol Electro-Oxidation Prepared by a Polyol-Alcohol Reduction Process. <i>ECS Transactions</i> , 2014, 61, 1-9.	0.3	1
71	(Invited) Comparative Study of the Electrocatalytic Oxidation of Glycerol on Pd-Au/CMO and Pd-Au/MWCNT Nanocatalysts Prepared by the Polyol Method in Alkaline Media. <i>ECS Transactions</i> , 2014, 64, 1061-1067.	0.3	1
72	Characterization of Methanol-Functionalized Onion Waste and Graphene-Based Carbons as Anode Catalysts for Microbial Fuel Cell Applications. <i>ECS Transactions</i> , 2018, 86, 585-593.	0.3	1

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73	Sulphur-Doped Ordered Mesoporous Carbon Hollow Spheres with High Catalytic Activity for the Oxygen Reduction Reaction and Exceptional Electrochemical Stability. ECS Transactions, 2019, 92, 679-687.	0.3	1
74	Insight into the effect of green methanol functionalization of Vulcan on the catalytic activity Pt ₁ Sn ₁ alloy for the Ethanol Oxidation Reaction in acid and alkaline media. Journal of Materials Research, 2021, 36, 4182-4191.	1.2	1
75	Red onions waste-derived biocarbons with remarkably high catalytic activity for the oxygen reduction reaction and high capacitance. MRS Advances, 2021, 6, 847-855.	0.5	1
76	Performance of Pd/C Cathode Electro-Catalysts for the ORR in Sulfuric Acid Containing Small Organic Molecules. ECS Transactions, 2008, 16, 761-767.	0.3	0
77	RRDE and EIS Study of Pt-Co/MWCNT Electrocatalysts as ORR Electrodes in Sulfuric Acid Containing Small Organic Molecules. ECS Transactions, 2010, 33, 2035-2043.	0.3	0
78	Synthesis and Evaluation of Low Platinum-Content Pt-CeO _x /MWCNT Cathodes for the ORR in the Absence and Presence of Ethanol in Acid Media. ECS Transactions, 2011, 41, 1323-1331.	0.3	0
79	Deposition Patterns of Porcelain Coatings Obtained by Electrophoretic Deposition in Acetone. Part 1. Voltage and Time Effect. Journal of Physical Chemistry B, 2013, 117, 1708-1713.	1.2	0
80	Synthesis of Ordered Mesoporous Carbon as Support for Pt-Co Alloys: Evaluation as an Alcohol-Tolerant ORR Catalyst for Direct Oxidation Fuel Cells. ECS Transactions, 2014, 61, 39-47.	0.3	0
81	Development of Free-Metal Electrocatalyst from Inexpensive Sources of Carbon: A Novel Electrode Material for Cathode Reaction in PEM Fuel Cells. ECS Transactions, 2015, 69, 637-642.	0.3	0
82	Development of Sn@Pt Core-Shell Nanostructures Supported on Vulcan and N-Doped Graphene as Nanocatalysts for the Ethylene Glycol Oxidation Reaction. ECS Transactions, 2018, 86, 575-584.	0.3	0
83	Application of the Electrophoretic Deposition Technique for the Development of Electrodes Containing a Catalyst Layer of Nanostructured Pt-Sn/C for DAFCs. MRS Advances, 2020, 5, 2991-3002.	0.5	0
84	EDITORIAL - Joint Meeting 9th International Symposium on New Materials and Nano-Materials for Electrochemical Systems and XII International Congress of the Mexican Hydrogen Society. Journal of New Materials for Electrochemical Systems, 2013, 16, 139.	0.3	0
85	Biocarbon from Sewage Sludge As Anode Catalyst for the Production of Bioelectricity in an MFC. ECS Meeting Abstracts, 2019, , .	0.0	0
86	Fe ₃ O ₄ @Pt Core-Shell Nanocatalyst Supported on N-Doped Functionalized Graphene As Novel Cathode Catalysts for Microbial Fuel Cells. ECS Meeting Abstracts, 2019, , .	0.0	0
87	Sulphur-Doped Ordered Mesoporous Carbon Hollow Spheres with High Catalytic Activity for the Oxygen Reduction Reaction and Exceptional Electrochemical Stability. ECS Meeting Abstracts, 2019, , .	0.0	0
88	Highly Active Pd-CeO ₂ -NR/C (cerium oxide nanorods) Bifunctional Nanocatalysts with Remarkable Stability for the Ethanol Oxidation and Oxygen Reduction Reactions in Alkaline Media. ECS Meeting Abstracts, 2019, , .	0.0	0
89	High Performance Sn@Pt/C and Sn@Pt/NG (C= Vulcan, NG= N-doped graphene) Core-Shell Nanostructures for the Hydrogen Evolution and Oxidation Reactions in Acid Media. ECS Meeting Abstracts, 2020, MA2020-01, 1563-1563.	0.0	0
90	Enhanced catalytic activity of Gd-doped electrospun CuFe ₂ O ₄ fibers for the oxygen reduction reaction (ORR). MRS Advances, 2021, 6, 839-846.	0.5	0