Pietro P Lopes

List of Publications by Year
in descending order

46 papers	6,134 citations	172457 29 h-index	206112 48 g-index
50 all docs	50 docs citations	50 times ranked	8994 citing authors

#	Article	IF	Citations
1	Exploring the Interface of Skinâ€Layered Titanium Fibers for Electrochemical Water Splitting. Advanced Energy Materials, 2021, 11, 2002926.	19.5	48
2	Dynamically Stable Active Sites from Surface Evolution of Perovskite Materials during the Oxygen Evolution Reaction. Journal of the American Chemical Society, 2021, 143, 2741-2750.	13.7	156
3	A percolation theory for designing corrosion-resistant alloys. Nature Materials, 2021, 20, 789-793.	27.5	48
4	Employing the Dynamics of the Electrochemical Interface in Aqueous Zincâ€Ion Battery Cathodes. Advanced Functional Materials, 2021, 31, 2102135.	14.9	34
5	Improved Rate for the Oxygen Reduction Reaction in a Sulfuric Acid Electrolyte using a Pt(111) Surface Modified with Melamine. ACS Applied Materials & Interfaces, 2021, 13, 3369-3376.	8.0	29
6	Eliminating dissolution of platinum-based electrocatalysts at the atomic scale. Nature Materials, 2020, 19, 1207-1214.	27.5	127
7	Active electrochemical interfaces stabilized through self-organized potential oscillations. Electrochemistry Communications, 2020, 121, 106853.	4.7	3
8	Past, present, and future of leadâ€“acid batteries. Science, 2020, 369, 923-924.	12.6	135
9	The role of an interface in stabilizing reaction intermediates for hydrogen evolution in aprotic electrolytes. Chemical Science, 2020, 11, 3914-3922.	7.4	23
10	Dynamic stability of active sites in hydr(oxy)oxides for the oxygen evolution reaction. Nature Energy, 2020, 5, 222-230.	39.5	540
11	Electrokinetic Analysis of Poorly Conductive Electrocatalytic Materials. ACS Catalysis, 2020, 10, 4990-4996.	11.2	43
12	Synthesis and characterization of bulk <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Nd</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo mathvariant="normal">/</mml:mo><mml:mn>2</mml:mn></mml:mrow></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Nd</mml:mi><mml:mrow></mml:mrow></mml:msub></mml:mrow></mml:math>. Physical Review Materials, 2020, 4, .	2.4	87
13	Atomic-resolution STEM Analysis of Nanoparticle During Electrocatalytic Reactions. Microscopy and Microanalysis, 2020, 26, 910-911.	0.4	0
14	Identical Location STEM analysis on La_{1â^'x}Sr_xCoO₃ Oxygen-Evolution Catalysts. Microscopy and Microanalysis, 2019, 25, 2052-2053.	0.4	1
15	Tuning of catalytic properties for electrooxidation of small organic molecules on Pt-based thin films via controlled thermal treatment. Journal of Catalysis, 2019, 371, 96-105.	6.2	6
16	Hydrogen evolution reaction on copper: Promoting water dissociation by tuning the surface oxophilicity. Electrochemistry Communications, 2019, 100, 30-33.	4.7	72
17	Electrocatalytic transformation of HF impurity to H2 and LiF in lithium-ion batteries. Nature Catalysis, 2018, 1, 255-262.	34.4	128
18	Dynamics of electrochemical Pt dissolution at atomic and molecular levels. Journal of Electroanalytical Chemistry, 2018, 819, 123-129.	3.8	74

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19	Role of structural hydroxyl groups in enhancing performance of electrochemically-synthesized bilayer V2O5. Nano Energy, 2018, 53, 449-457.	16.0	21
20	Real-Time Monitoring of Cation Dissolution/Deintercalation Kinetics from Transition-Metal Oxides in Organic Environments. Journal of Physical Chemistry Letters, 2018, 9, 4935-4940.	4.6	15
21	Stability Limits and Defect Dynamics in Ag Nanoparticles Probed by Bragg Coherent Diffractive Imaging. Nano Letters, 2017, 17, 1595-1601.	9.1	29
22	High-Performance Rh₂P Electrocatalyst for Efficient Water Splitting. Journal of the American Chemical Society, 2017, 139, 5494-5502.	13.7	343
23	Energy and fuels from electrochemical interfaces. Nature Materials, 2017, 16, 57-69.	27.5	1,484
24	Balancing activity, stability and conductivity of nanoporous core-shell iridium/iridium oxide oxygen evolution catalysts. Nature Communications, 2017, 8, 1449.	12.8	250
25	Design principles for hydrogen evolution reaction catalyst materials. Nano Energy, 2016, 29, 29-36.	16.0	629
26	Tuning the Reversibility of Mg Anodes via Controlled Surface Passivation by H₂O/Cl^{â€“} in Organic Electrolytes. Chemistry of Materials, 2016, 28, 8268-8277.	6.7	147
27	Superoxide (Electro)Chemistry on Well-Defined Surfaces in Organic Environments. Journal of Physical Chemistry C, 2016, 120, 15909-15914.	3.1	25
28	Relationships between Atomic Level Surface Structure and Stability/Activity of Platinum Surface Atoms in Aqueous Environments. ACS Catalysis, 2016, 6, 2536-2544.	11.2	196
29	Design of active and stable Coâ€“Moâ€“Sx chalcogels as pH-universal catalysts for the hydrogen evolution reaction. Nature Materials, 2016, 15, 197-203.	27.5	825
30	Double layer effects in electrocatalysis: The oxygen reduction reaction and ethanol oxidation reaction on Au(1 1 1), Pt(1 1 1) and Ir(1 1 1) in alkaline media containing Na and Li cations. Catalysis Today, 2016, 262, 41-47.	4.4	67
31	Surface spectators and their role in relationships between activity and selectivity of the oxygen reduction reaction in acid environments. Electrochemistry Communications, 2015, 60, 30-33.	4.7	25
32	Water as a Promoter and Catalyst for Dioxygen Electrochemistry in Aqueous and Organic Media. ACS Catalysis, 2015, 5, 6600-6607.	11.2	98
33	When Small is Big: The Role of Impurities in Electrocatalysis. Topics in Catalysis, 2015, 58, 1174-1180.	2.8	26
34	Eco-friendly synthesis of bimetallic AuAg nanoparticles. New Journal of Chemistry, 2014, 38, 2865-2873.	2.8	49
35	Unexpected NO Transfer Reaction between trans-[Ru^{II}(NO⁺)(NH₃)₄(L)]³⁺ and Fe(III) Species: Observation of a Heterobimetallic NO-Bridged Intermediate. Inorganic Chemistry, 2014, 53, 4475-4481.	4.0	7
36	Real-time determination of CO2 production and estimation of adsorbate coverage on a proton exchange membrane fuel cell under oscillatory operation. Journal of Solid State Electrochemistry, 2013, 17, 1851-1859.	2.5	11

#	Article	IF	Citations
37	CO tolerance of proton exchange membrane fuel cells with Pt/C and PtMo/C anodes operating at high temperatures: A mass spectrometry investigation. Electrochimica Acta, 2013, 88, 217-224.	5.2	45
38	Origin of Anomalous Activities for Electrocatalysts in Alkaline Electrolytes. Journal of Physical Chemistry C, 2012, 116, 22231-22237.	3.1	71
39	Potential oscillations in a proton exchange membrane fuel cell with a Pdâ€“Pt/C anode. Journal of Power Sources, 2011, 196, 84-89.	7.8	41
40	CO Tolerance of PEMFC Anodes: Mechanisms and Electrode Designs. Electrocatalysis, 2010, 1, 200-212.	3.0	47
41	The CO tolerance pathways on the Ptâ€“Ru electrocatalytic system. Journal of Electroanalytical Chemistry, 2010, 644, 110-116.	3.8	42
42	Electrocatalysis of the hydrogen oxidation in the presence of CO on RhO2/C-supported Pt nanoparticles. Electrochimica Acta, 2010, 56, 418-426.	5.2	8
43	PEMFC Oscillatory Behavior on a Pd-Pt/C Electrocatalyst. ECS Transactions, 2010, 33, 1-10.	0.5	2
44	Complex Oscillatory Response of a PEM Fuel Cell Fed with H[sub 2]/CO and Oxygen. Journal of the Electrochemical Society, 2010, 157, B1301.	2.9	43
45	Complex Dynamics in a PEM Fuel Cell. ECS Transactions, 2009, 25, 81-89.	0.5	8
46	Estudo do efeito de tratamentos tÃ©rmicos em catalisadores de PtRu/C frente Ã reaÃ§Ã£o de oxidaÃ§Ã£o de hidrogÃªnio na presenÃ§a de CO. Quimica Nova, 2007, 30, 1256-1260.	0.3	8