Serhiy Cherevko

List of Publications by Year
in descending order

192	14,114	18465 62	22147 113
papers	citations	h-index	g-index

200	200	200	11616
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Oxygen Electrochemistry as a Cornerstone for Sustainable Energy Conversion. Angewandte Chemie - International Edition, 2014, 53, 102-121.	7.2	1,186
2	Oxygen and hydrogen evolution reactions on Ru, RuO 2 , Ir, and IrO 2 thin film electrodes in acidic and alkaline electrolytes: A comparative study on activity and stability. Catalysis Today, 2016, 262, 170-180.	2.2	999
3	Molecular Insight in Structure and Activity of Highly Efficient, Low-Ir Irâ€“Ni Oxide Catalysts for Electrochemical Water Splitting (OER). Journal of the American Chemical Society, 2015, 137, 13031-13040.	6.6	565
4	The stability number as a metric for electrocatalyst stability benchmarking. Nature Catalysis, 2018, 1, 508-515.	16.1	533
5	Dissolution of Noble Metals during Oxygen Evolution in Acidic Media. ChemCatChem, 2014, 6, 2219-2223.	1.8	394
6	Dissolution of Platinum: Limits for the Deployment of Electrochemical Energy Conversion?. Angewandte Chemie - International Edition, 2012, 51, 12613-12615.	7.2	352
7	Towards a comprehensive understanding of platinum dissolution in acidic media. Chemical Science, 2014, 5, 631-638.	3.7	337
8	The Common Intermediates of Oxygen Evolution and Dissolution Reactions during Water Electrolysis on Iridium. Angewandte Chemie - International Edition, 2018, 57, 2488-2491.	7.2	331
9	Durability of platinum-based fuel cell electrocatalysts: Dissolution of bulk and nanoscale platinum. Nano Energy, 2016, 29, 275-298.	8.2	257
10	A Comparative Study on Gold and Platinum Dissolution in Acidic and Alkaline Media. Journal of the Electrochemical Society, 2014, 161, H822-H830.	1.3	239
11	Gold nanowire array electrode for non-enzymatic voltammetric and amperometric glucose detection. Sensors and Actuators B: Chemical, 2009, 142, 216-223.	4.0	229
12	Stability of nanostructured iridium oxide electrocatalysts during oxygen evolution reaction in acidic environment. Electrochemistry Communications, 2014, 48, 81-85.	2.3	229
13	Oxygen evolution activity and stability of iridium in acidic media. Part 2. â€“ Electrochemically grown hydrous iridium oxide. Journal of Electroanalytical Chemistry, 2016, 774, 102-110.	1.9	209
14	A Perspective on Low-Temperature Water Electrolysis â€“ Challenges in Alkaline and Acidic Technology. International Journal of Electrochemical Science, 2018, 13, 1173-1226.	0.5	197
15	Electrodeposition of three-dimensional porous silver foams. Electrochemistry Communications, 2010, 12, 467-470.	2.3	170
16	Direct electrodeposition of nanoporous gold with controlled multimodal pore size distribution. Electrochemistry Communications, 2011, 13, 16-19.	2.3	165
17	Atomic-scale insights into surface species of electrocatalysts in three dimensions. Nature Catalysis, 2018, 1, 300-305.	16.1	161
18	Oxygen evolution activity and stability of iridium in acidic media. Part 1. â€“ Metallic iridium. Journal of Electroanalytical Chemistry, 2016, 773, 69-78.	1.9	159

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19	Dissolution of Platinum in the Operational Range of Fuel Cells. ChemElectroChem, 2015, 2, 1471-1478.	1.7	152
20	Highly active nanostructured palladium-ceria electrocatalysts for the hydrogen oxidation reaction in alkaline medium. Nano Energy, 2017, 33, 293-305.	8.2	147
21	Degradation of iridium oxides via oxygen evolution from the lattice: correlating atomic scale structure with reaction mechanisms. Energy and Environmental Science, 2019, 12, 3548-3555.	15.6	147
22	Gold dissolution: towards understanding of noble metal corrosion. RSC Advances, 2013, 3, 16516.	1.7	142
23	Activity and Stability of Electrochemically and Thermally Treated Iridium for the Oxygen Evolution Reaction. Journal of the Electrochemical Society, 2016, 163, F3132-F3138.	1.3	140
24	The porous CuO electrode fabricated by hydrogen bubble evolution and its application to highly sensitive non-enzymatic glucose detection. Talanta, 2010, 80, 1371-1377.	2.9	129
25	Stability limits of tin-based electrocatalyst supports. Scientific Reports, 2017, 7, 4595.	1.6	127
26	Stability and Activity of Nonâ€Nobleâ€Metalâ€Based Catalysts Toward the Hydrogen Evolution Reaction. Angewandte Chemie - International Edition, 2017, 56, 9767-9771.	7.2	118
27	Rational design of the electrode morphology for oxygen evolution â€“ enhancing the performance for catalytic water oxidation. RSC Advances, 2014, 4, 9579.	1.7	117
28	Selectivity Trends Between Oxygen Evolution and Chlorine Evolution on Iridium-Based Double Perovskites in Acidic Media. ACS Catalysis, 2019, 9, 8561-8574.	5.5	117
29	Nickel-molybdenum alloy catalysts for the hydrogen evolution reaction: Activity and stability revised. Electrochimica Acta, 2018, 259, 1154-1161.	2.6	116
30	Electrocatalytic synthesis of hydrogen peroxide on Au-Pd nanoparticles: From fundamentals to continuous production. Chemical Physics Letters, 2017, 683, 436-442.	1.2	112
31	On the Need of Improved Accelerated Degradation Protocols (ADPs): Examination of Platinum Dissolution and Carbon Corrosion in Half-Cell Tests. Journal of the Electrochemical Society, 2016, 163, F1510-F1514.	1.3	112
32	Catalyst Stability Benchmarking for the Oxygen Evolution Reaction: The Importance of Backing Electrode Material and Dissolution in Accelerated Aging Studies. ChemSusChem, 2017, 10, 4140-4143.	3.6	111
33	Impact of key deposition parameters on the morphology of silver foams prepared by dynamic hydrogen template deposition. Electrochimica Acta, 2010, 55, 6383-6390.	2.6	104
34	Stability Limits of Ni-Based Hydrogen Oxidation Electrocatalysts for Anion Exchange Membrane Fuel Cells. ACS Catalysis, 2019, 9, 6837-6845.	5.5	102
35	On the limitations in assessing stability of oxygen evolution catalysts using aqueous model electrochemical cells. Nature Communications, 2021, 12, 2231.	5.8	100
36	IrO2 coated TiO2 core-shell microparticles advance performance of low loading proton exchange membrane water electrolyzers. Applied Catalysis B: Environmental, 2020, 269, 118762.	10.8	98

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37	Electrochemical Onâ€line ICPâ€MS in Electrocatalysis Research. Chemical Record, 2019, 19, 2130-2142.	2.9	92
38	Essentials of High Performance Water Electrolyzers â€“ From Catalyst Layer Materials to Electrode Engineering. Advanced Energy Materials, 2021, 11, 2101998.	10.2	92
39	Electrifying model catalysts for understanding electrocatalytic reactions in liquid electrolytes. Nature Materials, 2018, 17, 592-598.	13.3	89
40	Towards maximized utilization of iridium for the acidic oxygen evolution reaction. Nano Research, 2019, 12, 2275-2280.	5.8	89
41	Coupling of a scanning flow cell with online electrochemical mass spectrometry for screening of reaction selectivity. Review of Scientific Instruments, 2014, 85, 104101.	0.6	83
42	On the Origin of the Improved Ruthenium Stability in RuO₂â€“IrO₂Mixed Oxides. Journal of the Electrochemical Society, 2016, 163, F3099-F3104.	1.3	82
43	Stability and dissolution of electrocatalysts: Building the bridge between model and â€œreal worldâ€• systems. Current Opinion in Electrochemistry, 2018, 8, 118-125.	2.5	82
44	The Electrochemical Dissolution of Noble Metals in Alkaline Media. Electrocatalysis, 2018, 9, 153-161.	1.5	82
45	Tuning the Electrocatalytic Performance of Ionic Liquid Modified Pt Catalysts for the Oxygen Reduction Reaction via Cationic Chain Engineering. ACS Catalysis, 2018, 8, 8244-8254.	5.5	82
46	Electroplating of metal nanotubes and nanowires in a high aspect-ratio nanotemplate. Electrochemistry Communications, 2008, 10, 514-518.	2.3	81
47	Temperature-Dependent Dissolution of Polycrystalline Platinum in Sulfuric Acid Electrolyte. Electrocatalysis, 2014, 5, 235-240.	1.5	81
48	Ultrahigh-energy and stable supercapacitors based on intertwined porous MoO3â€“MWCNT nanocomposites. Electrochimica Acta, 2011, 58, 76-80.	2.6	80
49	Phase- and Surface Composition-Dependent Electrochemical Stability of Ir-Ru Nanoparticles during Oxygen Evolution Reaction. ACS Catalysis, 2021, 11, 9300-9316.	5.5	79
50	Electrochemical dissolution of gold in acidic medium. Electrochemistry Communications, 2013, 28, 44-46.	2.3	78
51	Goldâ€“Palladium Bimetallic Catalyst Stability: Consequences for Hydrogen Peroxide Selectivity. ACS Catalysis, 2017, 7, 5699-5705.	5.5	76
52	Mechanisms of Manganese Oxide Electrocatalysts Degradation during Oxygen Reduction and Oxygen Evolution Reactions. Journal of Physical Chemistry C, 2019, 123, 25267-25277.	1.5	76
53	Atomistic Insights into the Stability of Pt Single-Atom Electrocatalysts. Journal of the American Chemical Society, 2020, 142, 15496-15504.	6.6	75
54	Increased Irâ€“Ir Interaction in Iridium Oxide during the Oxygen Evolution Reaction at High Potentials Probed by Operando Spectroscopy. ACS Catalysis, 2021, 11, 10043-10057.	5.5	75

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55	Evaluating Electrocatalysts at Relevant Currents in a Half-Cell: The Impact of Pt Loading on Oxygen Reduction Reaction. Journal of the Electrochemical Society, 2019, 166, F1259-F1268.	1.3	72
56	Structure dependency of the atomic-scale mechanisms of platinum electro-oxidation and dissolution. Nature Catalysis, 2020, 3, 754-761.	16.1	72
57	Effect of Pyrolysis Atmosphere and Electrolyte pH on the Oxygen Reduction Activity, Stability and Spectroscopic Signature of FeN_x Moieties in Fe-N-C Catalysts. Journal of the Electrochemical Society, 2019, 166, F3311-F3320.	1.3	70
58	Hydrogen template assisted electrodeposition of sub-micrometer wires composing honeycomb-like porous Pb films. Applied Surface Science, 2011, 257, 8054-8061.	3.1	67
59	Nanoporous Pt@Au_xCu_{100â€“x} by Hydrogen Evolution Assisted Electrodeposition of Au_xCu_{100â€“x} and Galvanic Replacement of Cu with Pt: Electrocatalytic Properties. Langmuir, 2012, 28, 3306-3315.	1.6	67
60	Insight into the Mechanisms of High Activity and Stability of Iridium Supported on Antimony-Doped Tin Oxide Aerogel for Anodes of Proton Exchange Membrane Water Electrolyzers. ACS Catalysis, 2020, 10, 2508-2516.	5.5	67
61	Hydrogen sensing performance of electrodeposited conoidal palladium nanowire and nanotube arrays. Sensors and Actuators B: Chemical, 2009, 136, 388-391.	4.0	66
62	Dissolution of Platinum in Presence of Chloride Traces. Electrochimica Acta, 2015, 179, 24-31.	2.6	66
63	Particle Size Effect on Platinum Dissolution: Considerations for Accelerated Stability Testing of Fuel Cell Catalysts. ACS Catalysis, 2020, 10, 6281-6290.	5.5	65
64	Platinum Dissolution in Realistic Fuel Cell Catalyst Layers. Angewandte Chemie - International Edition, 2021, 60, 8882-8888.	7.2	63
65	Nanoporous palladium with sub-10 nm dendrites by electrodeposition for ethanol and ethylene glycol oxidation. Nanoscale, 2012, 4, 103-105.	2.8	62
66	Unravelling Degradation Pathways of Oxideâ€Supported Pt Fuel Cell Nanocatalysts under In Situ Operating Conditions. Advanced Energy Materials, 2018, 8, 1701663.	10.2	62
67	Effect of Ionic Liquid Modification on the ORR Performance and Degradation Mechanism of Trimetallic PtNiMo/C Catalysts. ACS Catalysis, 2019, 9, 8682-8692.	5.5	60
68	Facile preparation of three-dimensional porous hydrous ruthenium oxide electrode for supercapacitors. Journal of Power Sources, 2013, 244, 806-811.	4.0	59
69	The Stability Challenge on the Pathway to Low and Ultraâ€Low Platinum Loading for Oxygen Reduction in Fuel Cells. ChemElectroChem, 2016, 3, 51-54.	1.7	59
70	Interâ€relationships between Oxygen Evolution and Iridium Dissolution Mechanisms. Angewandte Chemie - International Edition, 2022, 61, .	7.2	59
71	Oxygen Reduction Reaction in Alkaline Media Causes Iron Leaching from Feâ€“Nâ€“C Electrocatalysts. Journal of the American Chemical Society, 2022, 144, 9753-9763.	6.6	59
72	Benchmarking Fuel Cell Electrocatalysts Using Gas Diffusion Electrodes: Inter-lab Comparison and Best Practices. ACS Energy Letters, 2022, 7, 816-826.	8.8	58

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73	Platinum recycling going green via induced surface potential alteration enabling fast and efficient dissolution. Nature Communications, 2016, 7, 13164.	5.8	55
74	The impact of dissolved reactive gases on platinum dissolution in acidic media. Electrochemistry Communications, 2014, 40, 49-53.	2.3	54
75	Impact of Palladium Loading and Interparticle Distance on the Selectivity for the Oxygen Reduction Reaction toward Hydrogen Peroxide. Journal of Physical Chemistry C, 2018, 122, 15878-15885.	1.5	53
76	In Situ Stability Studies of Platinum Nanoparticles Supported on Rutheniumâ€"Titanium Mixed Oxide (RTO) for Fuel Cell Cathodes. ACS Catalysis, 2018, 8, 9675-9683.	5.5	51
77	Spot the difference at the nanoscale: identical location electron microscopy in electrocatalysis. Current Opinion in Electrochemistry, 2019, 15, 73-82.	2.5	50
78	Fabrication of a Robust PEM Water Electrolyzer Based on Nonâ€Noble Metal Cathode Catalyst: [Mo₃S₁₃]^{2â€"} Clusters Anchored to Nâ€Doped Carbon Nanotubes. Small, 2020, 16, e2003161.	5.2	50
79	The Space Confinement Approach Using Hollow Graphitic Spheres to Unveil Activity and Stability of Ptâ€Co Nanocatalysts for PEMFC. Advanced Energy Materials, 2017, 7, 1700835.	10.2	49
80	High Performance FeNC and Mn-oxide/FeNC Layers for AEMFC Cathodes. Journal of the Electrochemical Society, 2020, 167, 134505.	1.3	49
81	Particle Size Effect on Platinum Dissolution: Practical Considerations for Fuel Cells. ACS Applied Materials & Interfaces, 2020, 12, 25718-25727.	4.0	48
82	Oxygen Evolution Reaction on Tin Oxides Supported Iridium Catalysts: Do We Need Dopants?. ChemElectroChem, 2020, 7, 2330-2339.	1.7	48
83	Screening of material libraries for electrochemical CO2 reduction catalysts â€" Improving selectivity of Cu by mixing with Co. Journal of Catalysis, 2016, 343, 248-256.	3.1	47
84	Dissolution of BiVO₄ Photoanodes Revealed by Time-Resolved Measurements under Photoelectrochemical Conditions. Journal of Physical Chemistry C, 2019, 123, 23410-23418.	1.5	47
85	Electrochemical copper dissolution: A benchmark for stable CO2 reduction on copper electrocatalysts. Electrochemistry Communications, 2020, 115, 106739.	2.3	45
86	Limitations of aqueous model systems in the stability assessment of electrocatalysts for oxygen reactions in fuel cell and electrolyzers. Current Opinion in Electrochemistry, 2021, 29, 100832.	2.5	45
87	Single-Atom Catalysts: A Perspective toward Application in Electrochemical Energy Conversion. Jacs Au, 2021, 1, 1086-1100.	3.6	43
88	Dissolution of Platinum Single Crystals in Acidic Medium. ChemPhysChem, 2019, 20, 2997-3003.	1.0	42
89	Pt and Pd decorated Au nanowires: Extremely high activity of ethanol oxidation in alkaline media. Electrochimica Acta, 2011, 56, 5771-5775.	2.6	41
90	Different Photostability of BiVO₄ in Near-pH-Neutral Electrolytes. ACS Applied Energy Materials, 2020, 3, 9523-9527.	2.5	41

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91	Electrochemical dissolution of noble metals native oxides. Journal of Electroanalytical Chemistry, 2017, 787, 11-13.	1.9	40
92	Periodicity in the Electrochemical Dissolution of Transition Metals. Angewandte Chemie - International Edition, 2021, 60, 13343-13349.	7.2	40
93	Local Chemical Environment Governs Anode Processes in CO₂ Electrolyzers. ACS Energy Letters, 2021, 6, 3801-3808.	8.8	40
94	Pulse-reverse electrodeposition for mesoporous metal films: combination of hydrogen evolution assisted deposition and electrochemical dealloying. Nanoscale, 2012, 4, 568-575.	2.8	38
95	High temperature stability study of carbon supported high surface area catalystsâ€"Expanding the boundaries of ex-situ diagnostics. Electrochimica Acta, 2016, 211, 744-753.	2.6	38
96	Improved Hydrogen Oxidation Reaction Activity and Stability of Buried Metal-Oxide Electrocatalyst Interfaces. Chemistry of Materials, 2020, 32, 7716-7724.	3.2	38
97	Die gemeinsamen Zwischenprodukte von Sauerstoffentwicklung und AuflÃ¶sung wÃ¤hrend der Wasserelektrolyse an Iridium. Angewandte Chemie, 2018, 130, 2514-2517.	1.6	37
98	The Effect of the Voltage Scan Rate on the Determination of the Oxygen Reduction Activity of Pt/C Fuel Cell Catalyst. Electrocatalysis, 2015, 6, 237-241.	1.5	36
99	Addressing stability challenges of using bimetallic electrocatalysts: the case of goldâ€"palladium nanoalloys. Catalysis Science and Technology, 2017, 7, 1848-1856.	2.1	35
100	Atomically Defined Co₃O₄(111) Thin Films Prepared in Ultrahigh Vacuum: Stability under Electrochemical Conditions. Journal of Physical Chemistry C, 2018, 122, 7236-7248.	1.5	34
101	Time-resolved analysis of dissolution phenomena in photoelectrochemistry â€" A case study of WO3 photocorrosion. Electrochemistry Communications, 2018, 96, 53-56.	2.3	34
102	Fuel cell catalyst layer evaluation using a gas diffusion electrode half-cell: Oxygen reduction reaction on Fe-N-C in alkaline media. Electrochemistry Communications, 2020, 116, 106761.	2.3	34
103	Copper electroless plating in weakly alkaline electrolytes using DMAB as a reducing agent for metallization on polymer films. Electrochimica Acta, 2012, 59, 179-185.	2.6	33
104	Electrochemical dissolution of gold in presence of chloride and bromide traces studied by on-line electrochemical inductively coupled plasma mass spectrometry. Electrochimica Acta, 2016, 222, 1056-1063.	2.6	33
105	Dissolution Stability: The Major Challenge in the Regenerative Fuel Cells Bifunctional Catalysis. Journal of the Electrochemical Society, 2018, 165, F1376-F1384.	1.3	33
106	Utilization of surface active sites on gold in preparation of highly reactive interfaces for alcohols electrooxidation in alkaline media. Electrochimica Acta, 2012, 69, 190-196.	2.6	32
107	Effect of Temperature on Gold Dissolution in Acidic Media. Journal of the Electrochemical Society, 2014, 161, H501-H507.	1.3	32
108	The Dissolution Dilemma for Low Pt Loading Polymer Electrolyte Membrane Fuel Cell Catalysts. Journal of the Electrochemical Society, 2020, 167, 164501.	1.3	32

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109	Experimental Methodologies to Understand Degradation of Nanostructured Electrocatalysts for PEM Fuel Cells: Advances and Opportunities. ChemElectroChem, 2016, 3, 1524-1536.	1.7	30
110	Photocorrosion of WO₃ Photoanodes in Different Electrolytes. ACS Physical Chemistry Au, 2021, 1, 6-13.	1.9	30
111	Porous Pd films as effective ethanol oxidation electrocatalysts in alkaline medium. Materials Chemistry and Physics, 2011, 126, 36-40.	2.0	29
112	The influence of halides on the initial selective dissolution of Cu3Au (1 1 1). Electrochimica Acta, 2012, 85, 384-392.	2.6	29
113	Palladium electrodissolution from model surfaces and nanoparticles. Electrochimica Acta, 2017, 229, 467-477.	2.6	29
114	Electrochemical- and mechanical stability of catalyst layers in anion exchange membrane water electrolysis. International Journal of Hydrogen Energy, 2022, 47, 4304-4314.	3.8	28
115	Pt Sub-Monolayer on Au: System Stability and Insights into Platinum Electrochemical Dissolution. Journal of the Electrochemical Society, 2016, 163, H228-H233.	1.3	27
116	Influence of Fuels and pH on the Dissolution Stability of Bifunctional PtRu/C Alloy Electrocatalysts. ACS Catalysis, 2020, 10, 10858-10870.	5.5	27
117	On the effect of anion exchange ionomer binders in bipolar electrode membrane interface water electrolysis. Journal of Materials Chemistry A, 2021, 9, 14285-14295.	5.2	27
118	Electrolyte Effects on the Stabilization of Prussian Blue Analogue Electrodes in Aqueous Sodium-Ion Batteries. ACS Applied Materials & Interfaces, 2022, 14, 3515-3525.	4.0	27
119	The degradation of Pt/IrOx oxygen bifunctional catalysts. Electrochimica Acta, 2019, 308, 400-409.	2.6	26
120	Size and Composition Dependence of Oxygen Reduction Reaction Catalytic Activities of Mo-Doped PtNi/C Octahedral Nanocrystals. ACS Catalysis, 2021, 11, 11407-11415.	5.5	26
121	Structural Dynamics of Ultrathin Cobalt Oxide Nanoislands under Potential Control. Advanced Functional Materials, 2021, 31, 2009923.	7.8	26
122	Formation of nanoporous nickel oxides for supercapacitors prepared by electrodeposition with hydrogen evolution reaction and electrochemical dealloying. Korean Journal of Chemical Engineering, 2012, 29, 1802-1805.	1.2	25
123	Performance of Quaternized Polybenzimidazole-Cross-Linked Poly(vinylbenzyl chloride) Membranes in HT-PEMFCs. ACS Applied Materials & Interfaces, 2021, 13, 56584-56596.	4.0	25
124	Numerical Simulation of an Electrochemical Flow Cell with V-Shape Channel Geometry. Journal of the Electrochemical Society, 2015, 162, H860-H866.	1.3	22
125	Electrochemical stability of hexagonal tungsten carbide in the potential window of fuel cells and water electrolyzers investigated in a half-cell configuration. Electrochimica Acta, 2018, 270, 70-76.	2.6	22
126	Visualizing Potentialâ€Induced Pitting Corrosion of Ultrathin Singleâ€Crystalline IrO₂(110) Films on RuO₂(110)/Ru(0001) under Electrochemical Water Splitting Conditions. ChemCatChem, 2020, 12, 855-866.	1.8	22

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127	Evolution of the PtNi Bimetallic Alloy Fuel Cell Catalyst under Simulated Operational Conditions. ACS Applied Materials & Interfaces, 2020, 12, 17602-17610.	4.0	22
128	CrO_x-Mediated Performance Enhancement of Ni/NiO-Mg:SrTiO₃ in Photocatalytic Water Splitting. ACS Catalysis, 2021, 11, 11049-11058.	5.5	22
129	Electrodeposition Mechanism of Palladium Nanotube and Nanowire Arrays. Journal of Nanoscience and Nanotechnology, 2009, 9, 3154-3159.	0.9	21
130	Cobalt Oxide-Supported Pt Electrocatalysts: Intimate Correlation between Particle Size, Electronic Metalâ€“Support Interaction and Stability. Journal of Physical Chemistry Letters, 2020, 11, 8365-8371.	2.1	21
131	Electrochemical Oxidation of Isopropanol on Platinumâ€“Ruthenium Nanoparticles Studied with Real-Time Product and Dissolution Analytics. ACS Applied Materials & Interfaces, 2020, 12, 33670-33678.	4.0	21
132	Toward the Continuous Production of Multigram Quantities of Highly Uniform Supported Metallic Nanoparticles and Their Application for Synthesis of Superior Intermetallic Pt-Alloy ORR Electrocatalysts. ACS Applied Energy Materials, 2021, 4, 13819-13829.	2.5	21
133	Using Instability of a Non-stoichiometric Mixed Oxide Oxygen Evolution Catalyst As a Tool to Improve Its Electrocatalytic Performance. Electrocatalysis, 2018, 9, 139-145.	1.5	20
134	Accessing In Situ Photocorrosion under Realistic Light Conditions: Photoelectrochemical Scanning Flow Cell Coupled to Online ICP-MS. ACS Measurement Science Au, 2021, 1, 74-81.	1.9	20
135	Microkinetic Analysis of the Oxygen Evolution Performance at Different Stages of Iridium Oxide Degradation. Journal of the American Chemical Society, 2022, 144, 13205-13217.	6.6	19
136	Hierarchical nanoporous films obtained by surface cracking on Cu-Au and ethanethiol on Au(001). Electrochimica Acta, 2014, 140, 352-358.	2.6	18
137	Sacrificial Cu Layer Mediated the Formation of an Active and Stable Supported Iridium Oxygen Evolution Reaction Electrocatalyst. ACS Catalysis, 2021, 11, 12510-12519.	5.5	18
138	Stability and Activity of Nonâ€Nobleâ€Metalâ€Based Catalysts Toward the Hydrogen Evolution Reaction. Angewandte Chemie, 2017, 129, 9899-9903.	1.6	17
139	Operando Stability Studies of Ultrathin Single-Crystalline IrO₂(110) Films under Acidic Oxygen Evolution Reaction Conditions. ACS Catalysis, 2021, 11, 12651-12660.	5.5	17
140	Î±-MoO3 nanowire-based amperometric biosensor for l-lactate detection. Journal of Solid State Electrochemistry, 2012, 16, 2197-2201.	1.2	16
141	Effect of thiol self-assembled monolayers and plasma polymer films on dealloying of Cuâ€“Au alloys. RSC Advances, 2013, 3, 6586.	1.7	16
142	Interplay Among Dealloying, Ostwald Ripening, and Coalescence in Pt_XNi_{100â€“X} Bimetallic Alloys under Fuel-Cell-Related Conditions. ACS Catalysis, 2021, 11, 11360-11370.	5.5	15
143	On the Time Resolution of Electrochemical Scanning Flow Cell Coupled to Downstream Analysis. Journal of the Electrochemical Society, 2019, 166, H866-H870.	1.3	13
144	Platinum Dissolution in Realistic Fuel Cell Catalyst Layers. Angewandte Chemie, 2021, 133, 8964-8970.	1.6	13

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145	Compositionally tuned magnetron co-sputtered PtxNi100-x alloy as a cathode catalyst for proton exchange membrane fuel cells. Applied Surface Science, 2020, 511, 145486.	3.1	12
146	Electrocatalytic oxidation of 2-propanol on PtxIr100-x bifunctional electrocatalysts â€“ A thin-film materials library study. Journal of Catalysis, 2021, 396, 387-394.	3.1	11
147	Reduction of Oxide Layers on Au(111): The Interplay between Reduction Rate, Dissolution, and Restructuring. Journal of Physical Chemistry C, 2021, 125, 22698-22704.	1.5	11
148	Sustainable generation of hydrogen using chemicals with regional oversupply â€“ Feasibility of the electrolysis in acido-alkaline reactor. International Journal of Hydrogen Energy, 2014, 39, 16275-16281.	3.8	9
149	On-Line Inductively Coupled Plasma Spectrometry in Electrochemistry: Basic Principles and Applications. , 2018, , 326-335.		9
150	Anisotropy of Pt nanoparticles on carbon- and oxide-support and their structural response to electrochemical oxidation probed by in situ techniques. Physical Chemistry Chemical Physics, 2020, 22, 22260-22270.	1.3	9
151	Electrochemical Dissolution of Noble Metals. , 2018, , 68-75.		8
152	Model electrocatalysts for the oxidation of rechargeable electrofuels - carbon supported Pt nanoparticles prepared in UHV. Electrochimica Acta, 2021, 389, 138716.	2.6	8
153	High-throughput workflows in the service of (photo)electrocatalysis research. Trends in Chemistry, 2022, 4, 475-478.	4.4	7
154	Characterization of FePt film electrodeposited with a ferric electrolyte. Korean Journal of Chemical Engineering, 2009, 26, 1766-1769.	1.2	4
155	Photocorrosion of nâ€and pâ€Type Semiconducting Oxide Covered Metals: Case Studies of Anodized Titanium and Copper. Physica Status Solidi (A) Applications and Materials Science, 0, , .	0.8	4
156	Dissolution of Platinum in the Operational Range of Fuel Cells. ChemElectroChem, 2015, 2, 1407-1407.	1.7	3
157	MAXNET Energy â€“ Focusing Research in Chemical Energy Conversion on the Electrocatlytic Oxygen Evolution. Green, 2015, 5, .	0.4	3
158	Tuning the Anodic and Cathodic Dissolution of Gold by Varying the Surface Roughness. ChemElectroChem, 2021, 8, 1524-1530.	1.7	3
159	Periodicity in the Electrochemical Dissolution of Transition Metals. Angewandte Chemie, 2021, 133, 13455-13461.	1.6	3
160	(Invited) Novel Insights in the Activity, Selectivity and Durability of Fenc, Mn-Oxides and Fenc/Mn-Oxide Composites for ORR Catalysis in Alkaline Electrolyte and AEMFC. ECS Meeting Abstracts, 2019, , .	0.0	1
161	Catalyst Dissolution Analysis in PEM Water Electrolyzers during Intermittent Operation. ECS Meeting Abstracts, 2022, MA2022-01, 1369-1369.	0.0	1
162	(Invited) Electrocatalysts Dissolution Assessment in Fuel Cell and Water Electrolysis Research. ECS Meeting Abstracts, 2022, MA2022-01, 2052-2052.	0.0	1

#	Article	IF	Citations
163	Bipolar Membrane Electrode Assemblies for Water Electrolysis â€“ Goals and Challenges. ECS Meeting Abstracts, 2021, MA2021-01, 1230-1230.	0.0	0
164	Structure-Dependence of the Atomic-Scale Mechanisms of Pt Electrooxidation and Dissolution. ECS Meeting Abstracts, 2021, MA2021-01, 1823-1823.	0.0	0
165	(Invited) CrOx-Mediated Stability and Performance Enhancement of Ni/NiO-Mg:SrTiO3 in Photocatalytic Water Splitting. ECS Meeting Abstracts, 2021, MA2021-01, 1270-1270.	0.0	0
166	Gas Diffusion Electrode Half Cells â€“ a Powerful Tool for Fuel Cell Electrocatalyst Evaluation in Relevant Conditions. ECS Meeting Abstracts, 2021, MA2021-01, 1868-1868.	0.0	0
167	10.2478/s11814-009-0244-1. , 2011, 26, 1766.		0
168	Manganese Oxide Electrocatalysts: Degradation in Alkaline Energy Conversion Devices. ECS Meeting Abstracts, 2019, , .	0.0	0
169	(Invited) Fundamental Insights into Catalyst Stability in Low-Temperature Electrolysis. ECS Meeting Abstracts, 2019, , .	0.0	0
170	Iridium-Based Catalysts for Acidic Water Splitting: Oxygen Evolution and Dissolution Mechanisms. ECS Meeting Abstracts, 2019, , .	0.0	0
171	The Interparticle Distance Effect on Transient Platinum Dissolution: Degradation at High and Low Loadings. ECS Meeting Abstracts, 2019, , .	0.0	0
172	Electrocatalyst Performance in Acidic Aqueous and Solid Polymer Electrolytes. ECS Meeting Abstracts, 2019, , .	0.0	0
173	In-Operando Insights on the Hydrogen Evolution Reaction Activity and Stability of Non-Noble Metal Electrocatalysts for Water Electrolysis. ECS Meeting Abstracts, 2020, MA2020-01, 1530-1530.	0.0	0
174	The Stability of Sulfur Stabilized Pt Single Atom Electroatalyst. ECS Meeting Abstracts, 2020, MA2020-01, 2660-2660.	0.0	0
175	Dissolution Stability of Photoanodes and Co-Catalysts in Photoelectrochemical Water Splitting. ECS Meeting Abstracts, 2020, MA2020-01, 2550-2550.	0.0	0
176	(Invited) In Depth Analysis of the Promotion of Ni on Mg:SrTiO3 By CrOx. ECS Meeting Abstracts, 2020, MA2020-01, 1705-1705.	0.0	0
177	Improving Stability and Kinetics of Alkaline HOR Catalysts â€“ Towards Reduced System Cost. ECS Meeting Abstracts, 2020, MA2020-01, 1686-1686.	0.0	0
178	In Situ Studies of the Oxide Structure and Oxide Growth on Single Crystal Platinum Surfaces. ECS Meeting Abstracts, 2021, MA2021-02, 1464-1464.	0.0	0
179	Influence of Fuels and pH on the Activity and Dissolution Stability of Bifunctional Alloy Electrocatalysts. ECS Meeting Abstracts, 2020, MA2020-02, 2866-2866.	0.0	0
180	Improving Stability and Kinetics of Alkaline HOR Catalysts â€“ Towards Reduced System Cost. ECS Meeting Abstracts, 2020, MA2020-02, 2381-2381.	0.0	0

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181	Degradation Processes in Pt Single Atom and Pt Nanoparticulated Electroatalysts. ECS Meeting Abstracts, 2020, MA2020-02, 2872-2872.	0.0	0
182	Dissolution Stability of Photoanodes and Co-Catalysts in Photoelectrochemical Water Splitting. ECS Meeting Abstracts, 2020, MA2020-02, 3069-3069.	0.0	0
183	Interâ€relationships between Oxygen Evolution and Iridium Dissolution Mechanisms. Angewandte Chemie, 0, , .	1.6	0
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185	The Interplay of Oxygen Reduction Reaction and Iron Dissolution from Fe-N-C Electrocatalysts. ECS Meeting Abstracts, 2022, MA2022-01, 1486-1486.	0.0	0
186	Catalyst Development for the Electrochemical Oxidation of Isopropanol in LOHC Fuel Cells. ECS Meeting Abstracts, 2022, MA2022-01, 1705-1705.	0.0	0
187	Accessing in Situ Photocorrosion Under Realistic Light Conditions. ECS Meeting Abstracts, 2022, MA2022-01, 1886-1886.	0.0	0
188	Quaternized Polybenzimidazole-Cross-Linked Poly(vinylbenzyl chloride) Membranes and Their Performance in HT-PEMFCs. ECS Meeting Abstracts, 2022, MA2022-01, 1411-1411.	0.0	0
189	Electrooxidation of Platinum. ECS Meeting Abstracts, 2022, MA2022-01, 2321-2321.	0.0	0
190	Electrochemical Characterisation of the Oxygen Reduction Reaction in Realistic Catalyst Layers with a Gas Diffusion Electrode (GDE). ECS Meeting Abstracts, 2022, MA2022-01, 2071-2071.	0.0	0
191	New Insights into Pt Dissolution Mechanisms from SFC-ICP-MS Measurements for Well-Defined Surfaces. ECS Meeting Abstracts, 2022, MA2022-01, 1944-1944.	0.0	0
192	Uncovering Activity-Stability Relationships in Mixed Ir-Based Catalysts Toward Improved Water Electrolysis. ECS Meeting Abstracts, 2022, MA2022-01, 1373-1373.	0.0	0