Thomas J Schmidt

List of Publications by Year
in descending order

291	21,952	13865 67	9861 141
papers	citations	h-index	g-index

305	305	305	15833
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Oxygen reduction on a high-surface area Pt/Vulcan carbon catalyst: a thin-film rotating ring-disk electrode study. Journal of Electroanalytical Chemistry, 2001, 495, 134-145.	3.8	1,289
2	Characterization of Highâ€Surfaceâ€Area Electrocatalysts Using a Rotating Disk Electrode Configuration. Journal of the Electrochemical Society, 1998, 145, 2354-2358.	2.9	1,071
3	Developments and perspectives of oxide-based catalysts for the oxygen evolution reaction. Catalysis Science and Technology, 2014, 4, 3800-3821.	4.1	1,006
4	Oxygen Reduction Reaction on Pt and Pt Bimetallic Surfaces: A Selective Review. Fuel Cells, 2001, 1, 105-116.	2.4	986
5	Oxygen Reduction on Carbon-Supported Ptâ^'Ni and Ptâ^'Co Alloy Catalysts. Journal of Physical Chemistry B, 2002, 106, 4181-4191.	2.6	880
6	Surface Composition Effects in Electrocatalysis:â€‰ Kinetics of Oxygen Reduction on Well-Defined Pt3Ni and Pt3Co Alloy Surfaces. Journal of Physical Chemistry B, 2002, 106, 11970-11979.	2.6	779
7	Electrocatalysis for Polymer Electrolyte Fuel Cells: Recent Achievements and Future Challenges. ACS Catalysis, 2012, 2, 864-890.	11.2	728
8	Dynamic surface self-reconstruction is the key of highly active perovskite nano-electrocatalysts for water splitting. Nature Materials, 2017, 16, 925-931.	27.5	696
9	Oxygen reduction on high surface area Pt-based alloy catalysts in comparison to well defined smooth bulk alloy electrodes. Electrochimica Acta, 2002, 47, 3787-3798.	5.2	514
10	The oxygen reduction reaction on a Pt/carbon fuel cell catalyst in the presence of chloride anions. Journal of Electroanalytical Chemistry, 2001, 508, 41-47.	3.8	425
11	Iridium Oxide for the Oxygen Evolution Reaction: Correlation between Particle Size, Morphology, and the Surface Hydroxo Layer from Operando XAS. Chemistry of Materials, 2016, 28, 6591-6604.	6.7	347
12	Critical Reviewâ€"Identifying Critical Gaps for Polymer Electrolyte Water Electrolysis Development. Journal of the Electrochemical Society, 2017, 164, F387-F399.	2.9	347
13	Oxygen Evolution Reactionâ€"The Enigma in Water Electrolysis. ACS Catalysis, 2018, 8, 9765-9774.	11.2	345
14	Surface distortion as a unifying concept and descriptor in oxygen reduction reaction electrocatalysis. Nature Materials, 2018, 17, 827-833.	27.5	344
15	Effect of Temperature on Surface Processes at the Pt(111)â^'Liquid Interface:Â Hydrogen Adsorption, Oxide Formation, and CO Oxidation. Journal of Physical Chemistry B, 1999, 103, 8568-8577.	2.6	315
16	Noble Metal Aerogelsâ€"Synthesis, Characterization, and Application as Electrocatalysts. Accounts of Chemical Research, 2015, 48, 154-162.	15.6	313
17	Thermodynamic explanation of the universal correlation between oxygen evolution activity and corrosion of oxide catalysts. Scientific Reports, 2015, 5, 12167.	3.3	309
18	IrO₂-TiO₂: A High-Surface-Area, Active, and Stable Electrocatalyst for the Oxygen Evolution Reaction. ACS Catalysis, 2017, 7, 2346-2352.	11.2	264

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19	Oxygen Evolution Reaction on La_{1â€“x}Sr_xCoO₃ Perovskites: A Combined Experimental and Theoretical Study of Their Structural, Electronic, and Electrochemical Properties. Chemistry of Materials, 2015, 27, 7662-7672.	6.7	259
20	Properties of high-temperature PEFC CeltecÂ®-P 1000 MEAs in start/stop operation mode. Journal of Power Sources, 2008, 176, 428-434.	7.8	258
21	Functional Role of Fe-Doping in Co-Based Perovskite Oxide Catalysts for Oxygen Evolution Reaction. Journal of the American Chemical Society, 2019, 141, 5231-5240.	13.7	250
22	Bimetallic Aerogels: Highâ€Performance Electrocatalysts for the Oxygen Reduction Reaction. Angewandte Chemie - International Edition, 2013, 52, 9849-9852.	13.8	246
23	Temperature dependent surface electrochemistry on Pt single crystals in alkaline electrolytes. Journal of Electroanalytical Chemistry, 2002, 524-525, 252-260.	3.8	232
24	Electrocatalytic Activity of PtRu Alloy Colloids for CO and CO/H2 Electrooxidation:â€‰ Stripping Voltammetry and Rotating Disk Measurements. Langmuir, 1997, 13, 2591-2595.	3.5	227
25	PtRu Alloy Colloids as Precursors for Fuel Cell Catalysts: A Combined XPS, AFM, HRTEM, and RDE Study. Journal of the Electrochemical Society, 1998, 145, 925-931.	2.9	226
26	Rotating Disk Electrode Measurements on the CO Tolerance of a Highâ€Surface Area Pt/Vulcan Carbon Fuel Cell Catalyst. Journal of the Electrochemical Society, 1999, 146, 1296-1304.	2.9	214
27	Oxygen electrocatalysis in alkaline electrolyte: Pt(hkl), Au(hkl) and the effect of Pd-modification. Electrochimica Acta, 2002, 47, 3765-3776.	5.2	209
28	The electro-oxidation of formic acid on Ptâ€“Pd single crystal bimetallic surfaces. Physical Chemistry Chemical Physics, 2003, 5, 4242-4251.	2.8	203
29	Oxygen Reduction on Ru[sub 1.92]Mo[sub 0.08]SeO[sub 4], Ru/Carbon, and Pt/Carbon in Pure and Methanol-Containing Electrolytes. Journal of the Electrochemical Society, 2000, 147, 2620.	2.9	200
30	Methanol electrooxidation on a colloidal PtRu-alloy fuel-cell catalyst. Electrochemistry Communications, 1999, 1, 1-4.	4.7	196
31	Highly Active and Stable Iridium Pyrochlores for Oxygen Evolution Reaction. Chemistry of Materials, 2017, 29, 5182-5191.	6.7	172
32	Activity of PtRuMeOx (Me = W, Mo or V) catalysts towards methanol oxidation and their characterization. Journal of Power Sources, 2002, 105, 297-304.	7.8	162
33	Determination of the Electrochemically Active Surface Area of Metal-Oxide Supported Platinum Catalyst. Journal of the Electrochemical Society, 2014, 161, H121-H128.	2.9	140
34	Electrochemical COâ„‚ Reduction â€“ A Critical View on Fundamentals, Materials and Applications. Chimia, 2015, 69, 769.	0.6	130
35	Engineered Water Highways in Fuel Cells: Radiation Grafting of Gas Diffusion Layers. Advanced Materials, 2015, 27, 6317-6322.	21.0	129
36	Temperature dependent surface electrochemistry on Pt single crystals in alkaline electrolyte. Physical Chemistry Chemical Physics, 2003, 5, 400-406.	2.8	128

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37	Perovskite Oxide Based Electrodes for the Oxygen Reduction and Evolution Reactions: The Underlying Mechanism. ACS Catalysis, 2021, 11, 3094-3114.	11.2	115
38	Unraveling Thermodynamics, Stability, and Oxygen Evolution Activity of Strontium Ruthenium Perovskite Oxide. ACS Catalysis, 2017, 7, 3245-3256.	11.2	113
39	Composite Electrode Boosts the Activity of Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3-Î´} Perovskite and Carbon toward Oxygen Reduction in Alkaline Media. ACS Catalysis, 2014, 4, 1061-1070.	11.2	111
40	The Effect of Platinum Loading and Surface Morphology on Oxygen Reduction Activity. Electrocatalysis, 2016, 7, 287-296.	3.0	106
41	Design Principles of Bipolar Electrochemical Co-Electrolysis Cells for Efficient Reduction of Carbon Dioxide from Gas Phase at Low Temperature. Journal of the Electrochemical Society, 2019, 166, F34-F43.	2.9	106
42	On the CO tolerance of novel colloidal PdAu/carbon electrocatalysts. Journal of Electroanalytical Chemistry, 2001, 501, 132-140.	3.8	105
43	Interfacial effects on the catalysis of the hydrogen evolution, oxygen evolution and CO2-reduction reactions for (co-)electrolyzer development. Nano Energy, 2016, 29, 4-28.	16.0	104
44	Polymer Electrolyte Water Electrolysis: Correlating Performance and Porous Transport Layer Structure: Part II. Electrochemical Performance Analysis. Journal of the Electrochemical Society, 2019, 166, F555-F565.	2.9	103
45	Superior Bifunctional Electrocatalytic Activity of Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3â€Î´}/Carbon Composite Electrodes: Insight into the Local Electronic Structure. Advanced Energy Materials, 2015, 5, 1402033.	19.5	102
46	Oxygen Evolution Reaction on Perovskites: A Multieffect Descriptor Study Combining Experimental and Theoretical Methods. ACS Catalysis, 2018, 8, 9567-9578.	11.2	98
47	Potential Oscillations and S-Shaped Polarization Curve in the Continuous Electro-oxidation of CO on Platinum Single-crystal Electrodes. Journal of Physical Chemistry B, 2001, 105, 8381-8386.	2.6	94
48	Performance and Durability of Membrane Electrode Assemblies Based on Radiation-Grafted FEP-g-Polystyrene Membranes. Fuel Cells, 2004, 4, 196-207.	2.4	94
49	Dynamic Operation of HT-PEFC: In-Operando Imaging of Phosphoric Acid Profiles and (Re)distribution. Journal of the Electrochemical Society, 2015, 162, F310-F316.	2.9	92
50	Formic Acid Oxidation on Pure and Bi-Modified Pt(111):Â Temperature Effects. Langmuir, 2000, 16, 8159-8166.	3.5	91
51	Operando X-ray characterization of high surface area iridium oxides to decouple their activity losses for the oxygen evolution reaction. Energy and Environmental Science, 2019, 12, 3038-3052.	30.8	90
52	Towards a generic understanding of oxygen evolution reaction kinetics in polymer electrolyte water electrolysis. Energy and Environmental Science, 2020, 13, 2153-2166.	30.8	90
53	Temperature-Dependent Surface Electrochemistry on Pt Single Crystals in Alkaline Electrolyte:Â Part 1:Â CO Oxidation. Journal of Physical Chemistry B, 2001, 105, 12082-12086.	2.6	89
54	Electrocatalysis of Perovskites: The Influence of Carbon on the Oxygen Evolution Activity. Journal of the Electrochemical Society, 2015, 162, F579-F586.	2.9	88

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55	Polymer Electrolyte Water Electrolysis: Correlating Porous Transport Layer Structural Properties and Performance: Part I. Tomographic Analysis of Morphology and Topology. Journal of the Electrochemical Society, 2019, 166, F270-F281.	2.9	88
56	Hierarchically Structured Porous Transport Layers for Polymer Electrolyte Water Electrolysis. Advanced Energy Materials, 2020, 10, 1903216.	19.5	87
57	Cell Performance Determining Parameters in High Pressure Water Electrolysis. Electrochimica Acta, 2016, 211, 989-997.	5.2	83
58	Durability and Reliability in High-Temperature Reformed Hydrogen PEFCs. ECS Transactions, 2006, 3, 861-869.	0.5	79
59	Pt nanoparticles supported on Sb-doped SnO₂ porous structures: developments and issues. Physical Chemistry Chemical Physics, 2014, 16, 13672-13681.	2.8	78
60	Nanostructuring Noble Metals as Unsupported Electrocatalysts for Polymer Electrolyte Fuel Cells. Advanced Energy Materials, 2017, 7, 1700548.	19.5	76
61	Pt-Ni Aerogels as Unsupported Electrocatalysts for the Oxygen Reduction Reaction. Journal of the Electrochemical Society, 2016, 163, F998-F1003.	2.9	74
62	Durability and Degradation in High-Temperature Polymer Electrolyte Fuel Cells. ECS Transactions, 2006, 1, 19-31.	0.5	73
63	CO adsorption and kinetics on well-characterized Pd films on Pt() in alkaline solutions. Surface Science, 2002, 506, 287-296.	1.9	71
64	Electrochemical Flow-Cell Setup for In Situ X-ray Investigations. Journal of the Electrochemical Society, 2016, 163, H906-H912.	2.9	71
65	The Oxygen Reduction Reaction on Thin Palladium Films Supported on a Pt(111) Electrode. Journal of Physical Chemistry B, 2003, 107, 9813-9819.	2.6	70
66	Operando X-ray absorption spectroscopy: A powerful tool toward water splitting catalyst development. Current Opinion in Electrochemistry, 2017, 5, 20-26.	4.8	69
67	Influence of Operating Conditions and Material Properties on the Mass Transport Losses of Polymer Electrolyte Water Electrolysis. Journal of the Electrochemical Society, 2017, 164, F973-F980.	2.9	69
68	Unsupported Ptâ€Ni Aerogels with Enhanced High Current Performance and Durability in Fuel Cell Cathodes. Angewandte Chemie - International Edition, 2017, 56, 10707-10710.	13.8	65
69	Simulated startâ€“stop as a rapid aging tool for polymer electrolyte fuel cell electrodes. Journal of Power Sources, 2011, 196, 5564-5572.	7.8	63
70	Highly Active Nanoperovskite Catalysts for Oxygen Evolution Reaction: Insights into Activity and Stability of Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{2+Î´} and PrBaCo₂O_{5+Î´}. Advanced Functional Materials, 2018, 28, 1804355.	14.9	63
71	Communicationâ€”Neutron Radiography of the Water/Gas Distribution in the Porous Layers of an Operating Electrolyser. Journal of the Electrochemical Society, 2016, 163, F3009-F3011.	2.9	62
72	Design and Synthesis of Ir/Ru Pyrochlore Catalysts for the Oxygen Evolution Reaction Based on Their Bulk Thermodynamic Properties. ACS Applied Materials & Interfaces, 2019, 11, 37748-37760.	8.0	61

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73	Radiation-Grafted Polymer Electrolyte Membranes for Water Electrolysis Cells: Evaluation of Key Membrane Properties. ACS Applied Materials & Interfaces, 2015, 7, 22203-22212.	8.0	59
74	Combining SAXS and XAS To Study the Operando Degradation of Carbon-Supported Pt-Nanoparticle Fuel Cell Catalysts. ACS Catalysis, 2018, 8, 7000-7015.	11.2	58
75	Decarbonization pathways of the Swiss cement industry towards net zero emissions. Journal of Cleaner Production, 2021, 288, 125413.	9.3	58
76	Performance of Different Carbon Electrode Materials: Insights into Stability and Degradation under Real Vanadium Redox Flow Battery Operating Conditions. Journal of the Electrochemical Society, 2017, 164, A1608-A1615.	2.9	57
77	Advanced Water Management in PEFCs: Diffusion Layers with Patterned Wettability. Journal of the Electrochemical Society, 2016, 163, F1389-F1398.	2.9	56
78	Investigating the Role of Strain toward the Oxygen Reduction Activity on Model Thin Film Pt Catalysts. ACS Catalysis, 2016, 6, 7566-7576.	11.2	56
79	High pressure polymer electrolyte water electrolysis: Test bench development and electrochemical analysis. International Journal of Hydrogen Energy, 2017, 42, 12076-12086.	7.1	56
80	Advanced Water Management in PEFCs: Diffusion Layers with Patterned Wettability. Journal of the Electrochemical Society, 2016, 163, F1038-F1048.	2.9	54
81	Correlation between Oxygen Vacancies and Oxygen Evolution Reaction Activity for a Model Electrode: PrBaCo₂O_{5+Î´}. Angewandte Chemie - International Edition, 2021, 60, 14609-14619.	13.8	54
82	Electrochemical Hydrogen Compression: Efficient Pressurization Concept Derived from an Energetic Evaluation. Journal of the Electrochemical Society, 2017, 164, F1187-F1195.	2.9	53
83	Influence of Cross-Linking on Performance of Radiation-Grafted and Sulfonated FEP 25 Membranes in H[sub 2]-O[sub 2] PEFC. Journal of the Electrochemical Society, 2005, 152, A93.	2.9	51
84	Polybenzimidazole/Acid Complexes as High-Temperature Membranes. , 2008, , 63-124.		51
85	On a new degradation mode for high-temperature polymer electrolyte fuel cells: How bipolar plate degradation affects cell performance. Electrochimica Acta, 2011, 56, 4237-4242.	5.2	51
86	High-resolution and large-area nanoparticle arrays using EUV interference lithography. Nanoscale, 2015, 7, 7386-7393.	5.6	51
87	Comparing the kinetic activation energy of the oxygen evolution and reduction reactions. Electrochimica Acta, 2018, 281, 466-471.	5.2	50
88	Multicarrier Energy Systems: Shaping Our Energy Future. Proceedings of the IEEE, 2020, 108, 1437-1456.	21.3	50
89	Celtec-V. Journal of the Electrochemical Society, 2007, 154, B981.	2.9	48
90	Investigation of Mass Transport Losses in Polymer Electrolyte Electrolysis Cells. ECS Transactions, 2015, 69, 1141-1148.	0.5	48

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91	A simple one-pot Adams method route to conductive high surface area IrO₂â€“TiO₂ materials. New Journal of Chemistry, 2016, 40, 1834-1838.	2.8	46
92	Proton Transport in Catalyst Layers of a Polymer Electrolyte Water Electrolyzer: Effect of the Anode Catalyst Loading. Journal of the Electrochemical Society, 2019, 166, F214-F220.	2.9	46
93	Bi adsorption on Pt(111) in perchloric acid solution: A rotating ringâ€“disk electrode and XPS study. Physical Chemistry Chemical Physics, 2000, 2, 4379-4386.	2.8	45
94	Operando X-ray Tomographic Microscopy Imaging of HT-PEFC: A Comparative Study of Phosphoric Acid Electrolyte Migration. Journal of the Electrochemical Society, 2016, 163, F842-F847.	2.9	45
95	OperandoX-ray absorption investigations into the role of Fe in the electrochemical stability and oxygen evolution activity of Ni_{1â”x}Fe_xO_ynanoparticles. Journal of Materials Chemistry A, 2018, 6, 24534-24549.	10.3	45
96	Probing the solidâ€“liquid interface with tender x rays: A new ambient-pressure x-ray photoelectron spectroscopy endstation at the Swiss Light Source. Review of Scientific Instruments, 2020, 91, 023103.	1.3	45
97	Oscillatory behavior in the electrochemical oxidation of formic acid on Pt(100): rotation and temperature effects. Journal of Electroanalytical Chemistry, 2001, 500, 36-43.	3.8	44
98	Capacitive electronic metal-support interactions: Outer surface charging of supported catalyst particles. Physical Review B, 2017, 96, .	3.2	44
99	Co/Fe Oxyhydroxides Supported on Perovskite Oxides as Oxygen Evolution Reaction Catalyst Systems. ACS Applied Materials & Interfaces, 2019, 11, 34787-34795.	8.0	43
100	Advanced Water Management in PEFCs: Diffusion Layers with Patterned Wettability. Journal of the Electrochemical Society, 2016, 163, F788-F801.	2.9	42
101	Tackling capacity fading in vanadium flow batteries with amphoteric membranes. Journal of Power Sources, 2017, 368, 68-72.	7.8	42
102	Communicationâ€”Contribution of Catalyst Layer Proton Transport Resistance to Voltage Loss in Polymer Electrolyte Water Electrolyzers. Journal of the Electrochemical Society, 2018, 165, J3016-J3018.	2.9	42
103	Tackling Capacity Fading in Vanadium Redox Flow Batteries with Amphoteric Polybenzimidazole/Nafion Bilayer Membranes. ChemSusChem, 2019, 12, 2620-2627.	6.8	42
104	Oxygen evolution reaction activity and underlying mechanism of perovskite electrocatalysts at different pH. Materials Advances, 2021, 2, 345-355.	5.4	42
105	Fast Xâ€ray Tomographic Microscopy: Investigating Mechanisms of Performance Drop during Freeze Starts of Polymer Electrolyte Fuel Cells. ChemElectroChem, 2015, 2, 1551-1559.	3.4	41
106	Oxygen Reduction Reaction on Pt and Pt Bimetallic Surfaces: A Selective Review. Fuel Cells, 2001, 1, 105-116.	2.4	41
107	Stability and Degradation Mechanisms of Radiation-Grafted Polymer Electrolyte Membranes for Water Electrolysis. ACS Applied Materials & Interfaces, 2016, 8, 15297-15306.	8.0	40
108	Pt/IrO 2 â€“TiO 2 cathode catalyst for low temperature polymer electrolyte fuel cell â€“ Application in MEAs, performance and stability issues. Catalysis Today, 2016, 262, 161-169.	4.4	40

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109	On the Oxidation State of Cu₂O upon Electrochemical CO₂ Reduction: An XPS Study. ChemPhysChem, 2019, 20, 3120-3127.	2.1	40
110	Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3â€Î´} Perovskite Activity towards the Oxygen Reduction Reaction in Alkaline Media. ChemElectroChem, 2014, 1, 338-342.	3.4	39
111	Amphoteric Ionâ€Exchange Membranes with Significantly Improved Vanadium Barrier Properties for Allâ€Vanadium Redox Flow Batteries. ChemSusChem, 2017, 10, 2767-2777.	6.8	36
112	Potentialâ€Induced Spin Changes in Fe/N/C Electrocatalysts Assessed by In Situ Xâ€ray Emission Spectroscopy. Angewandte Chemie - International Edition, 2021, 60, 11707-11712.	13.8	36
113	Catalyzed SnO₂ Thin Films: Theoretical and Experimental Insights into Fabrication and Electrocatalytic Properties. Journal of Physical Chemistry C, 2014, 118, 11292-11302.	3.1	35
114	Correlating Electrolyte Inventory and Lifetime of HT-PEFC by Accelerated Stress Testing. Journal of the Electrochemical Society, 2015, 162, F1367-F1372.	2.9	35
115	Impact of Hydrophobic Coating on Mass Transport Losses in PEFCs. Journal of the Electrochemical Society, 2015, 162, F1243-F1252.	2.9	35
116	Long-term development of the industrial sector â€“ Case study about electrification, fuel switching, and CCS in the USA. Computers and Chemical Engineering, 2020, 133, 106602.	3.8	35
117	Transient and Steady State Two-Phase Flow in Anodic Porous Transport Layer of Proton Exchange Membrane Water Electrolyzer. Journal of the Electrochemical Society, 2020, 167, 084509.	2.9	35
118	Vanadium (V) reduction reaction on modified glassy carbon electrodes â€“ Role of oxygen functionalities and microstructure. Carbon, 2016, 109, 472-478.	10.3	33
119	Timeâ€Resolved Potentialâ€Induced Changes in Fe/N/Câ€Catalysts Studied by In Situ Modulation Excitation Xâ€Ray Absorption Spectroscopy. Advanced Energy Materials, 2022, 12, .	19.5	33
120	Radiation Grafted Ion-Conducting Membranes: The Influence of Variations in Base Film Nanostructure. Macromolecules, 2016, 49, 4253-4264.	4.8	32
121	Co-electrolysis of CO2 and H2O: From electrode reactions to cell-level development. Current Opinion in Electrochemistry, 2020, 23, 89-95.	4.8	32
122	Dual Spectrum Neutron Radiography: Identification of Phase Transitions between Frozen and Liquid Water. Physical Review Letters, 2014, 112, 248301.	7.8	31
123	Effects of PEMFC Operational History under Dry/Wet Conditions on Additional Voltage Losses due to Ionomer Migration. Journal of the Electrochemical Society, 2020, 167, 144513.	2.9	31
124	Surface processes and electrocatalysis on the Pt(hkl)/Bi-solution interface. Physical Chemistry Chemical Physics, 2001, 3, 3879-3890.	2.8	30
125	Evaluation of Neutron Imaging for Measuring Phosphoric Acid Distribution in High Temperature PEFCs. Journal of the Electrochemical Society, 2014, 161, F192-F198.	2.9	30
126	Second Cycle Is Dead: Advanced Electrode Diagnostics for High-Temperature Polymer Electrolyte Fuel Cells. Journal of the Electrochemical Society, 2014, 161, F500-F505.	2.9	30

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127	Effect of ball milling on the electrocatalytic activity of Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O₃ towards the oxygen evolution reaction. Journal of Materials Chemistry A, 2017, 5, 13130-13137.	10.3	30
128	Characterizing Local O₂Diffusive Losses in GDLs of PEFCs Using Simplified Flow Field Patterns (â€œ2Dâ€‚â€œ1Dâ€‚â€œ0Dâ€). Journal of the Electrochemical Society, 2013, 160, F659-F669.	2.9	29
129	Stabilization of Pt Nanoparticles Due to Electrochemical Transistor Switching of Oxide Support Conductivity. Chemistry of Materials, 2017, 29, 2831-2843.	6.7	29
130	Examining the surface evolution of LaTiOxNy an oxynitride solar water splitting photocatalyst. Nature Communications, 2020, 11, 1728.	12.8	29
131	Breaking through the Cracks: On the Mechanism of Phosphoric Acid Migration in High Temperature Polymer Electrolyte Fuel Cells. Journal of the Electrochemical Society, 2018, 165, F1176-F1183.	2.9	28
132	Surface Characterization and Electrochemical Behavior of Well-Defined Ptâ^'Pd{111} Single-Crystal Surfaces:Â A Comparative Study Using Pt{111} and Palladium-Modified Pt{111} Electrodes. Langmuir, 2002, 18, 6969-6975.	3.5	27
133	Towards re-electrification of hydrogen obtained from the power-to-gas process by highly efficient H₂/O₂ polymer electrolyte fuel cells. RSC Advances, 2014, 4, 56139-56146.	3.6	27
134	Understanding the Influence of Carbon on the Oxygen Reduction and Evolution Activities of BSCF/Carbon Composite Electrodes in Alkaline Electrolyte. ECS Transactions, 2014, 58, 9-18.	0.5	26
135	Alloying Behavior of Selfâ€Assembled Noble Metal Nanoparticles. Chemistry - A European Journal, 2016, 22, 13446-13450.	3.3	25
136	Influence of Carbon Material Properties on Activity and Stability of the Negative Electrode in Vanadium Redox Flow Batteries: A Model Electrode Study. ACS Applied Energy Materials, 2018, 1, 1166-1174.	5.1	25
137	Facile deposition of Pt nanoparticles on Sb-doped SnO₂ support with outstanding active surface area for the oxygen reduction reaction. Catalysis Science and Technology, 2018, 8, 2672-2685.	4.1	25
138	Fe-Doping in Double Perovskite PrBaCo2(1-x)Fe2xO6-Î´: Insights into Structural and Electronic Effects to Enhance Oxygen Evolution Catalyst Stability. Catalysts, 2019, 9, 263.	3.5	25
139	Effect of Acid Washing on the Oxygen Reduction Reaction Activity of Pt-Cu Aerogel Catalysts. Electrochimica Acta, 2017, 233, 210-217.	5.2	24
140	Droplet and Percolation Network Interactions in a Fuel Cell Gas Diffusion Layer. Journal of the Electrochemical Society, 2020, 167, 084506.	2.9	24
141	Durability of Unsupported Pt-Ni Aerogels in PEFC Cathodes. Journal of the Electrochemical Society, 2017, 164, F1136-F1141.	2.9	23
142	Comment on â€œHow green is blue hydrogen?â€. Energy Science and Engineering, 2022, 10, 1944-1954.	4.0	23
143	When Size Matters: Active Area Dependence of PEFC Cold Start Capability. Journal of the Electrochemical Society, 2015, 162, F1231-F1235.	2.9	22
144	Homogeneity and elemental distribution in self-assembled bimetallic Pdâ€“Pt aerogels prepared by a spontaneous one-step gelation process. Physical Chemistry Chemical Physics, 2016, 18, 20640-20650.	2.8	22

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145	Unraveling two-phase transport in porous transport layer materials for polymer electrolyte water electrolysis. Journal of Materials Chemistry A, 2021, 9, 22102-22113.	10.3	22
146	Revealing the role of phosphoric acid in all-vanadium redox flow batteries with DFT calculations and in situ analysis. Physical Chemistry Chemical Physics, 2018, 20, 23664-23673.	2.8	21
147	High-Temperature Polymer Electrolyte Fuel Cells: Durability Insights. , 2009, , 199-221.		21
148	Potential Pitfalls in the Operando XAS Study of Oxygen Evolution Electrocatalysts. ACS Energy Letters, 2022, 7, 1735-1740.	17.4	21
149	The Effect of Platinum Nanoparticle Distribution on Oxygen Electroreduction Activity and Selectivity. ChemCatChem, 2014, 6, 1410-1418.	3.7	20
150	Statistical Analysis of Isothermal Cold Starts of PEFCs: Impact of Gas Diffusion Layer Properties. Journal of the Electrochemical Society, 2016, 163, F1258-F1266.	2.9	20
151	Influence of surface oxygen groups on V(II) oxidation reaction kinetics. Electrochemistry Communications, 2017, 75, 13-16.	4.7	20
152	Structural Analysis and Electrochemical Properties of Bimetallic Palladiumâ€“Platinum Aerogels Prepared by a Twoâ€Step Gelation Process. ChemCatChem, 2017, 9, 798-808.	3.7	20
153	Distinction between super-cooled water and ice with high duty cycle time-of-flight neutron imaging. Review of Scientific Instruments, 2019, 90, .	1.3	20
154	Effects of Gas Diffusion Layer Substrates on PEFC Water Management: Part I. Operando Liquid Water Saturation and Gas Diffusion Properties. Journal of the Electrochemical Society, 2021, 168, 074505.	2.9	20
155	Particle-Support Interferences in Small-Angle X-Ray Scattering from Supported-Catalyst Materials. Physical Review Applied, 2015, 3, .	3.8	19
156	Think Different! Carbon Corrosion Mitigation Strategy in High Temperature PEFC: A Rapid Aging Study. Journal of the Electrochemical Society, 2015, 162, F291-F297.	2.9	19
157	Bifunctional Ion-Conducting Polymer Electrolyte for the Vanadium Redox Flow Battery with High Selectivity. Journal of the Electrochemical Society, 2016, 163, A2563-A2570.	2.9	19
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