K Andreas Friedrich

List of Publications by Year
in descending order

320	13,149	32410	36203
papers	citations	55 h-index	101 g-index

335	335	335	12292
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Investigating the electrowetting of silverâ€based gasâ€diffusion electrodes during oxygen reduction reaction with electrochemical and optical methods. Electrochemical Science Advances, 2023, 3, .	1.2	10
2	A high-performance, durable and low-cost proton exchange membrane electrolyser with stainless steel components. Energy and Environmental Science, 2022, 15, 109-122.	15.6	72
3	The challenges in reliable determination of degradation rates and lifetime in polymer electrolyte membrane fuel cells. Current Opinion in Electrochemistry, 2022, 31, 100863.	2.5	7
4	Understanding the Influence of Temperature on Phase Evolution during Lithiumâ€Graphite (Deâ€)Intercalation Processes: An Operando Xâ€ray Diffraction Study. ChemElectroChem, 2022, 9, e202101342.	1.7	3
5	Roadmap for Sustainable Mixed Ionicâ€Electronic Conducting Membranes. Advanced Functional Materials, 2022, 32, .	7.8	49
6	Operando UV/vis Spectroscopy Providing Insights into the Sulfur and Polysulfide Dissolution in Magnesiumâ€“Sulfur Batteries. ACS Energy Letters, 2022, 7, 1-9.	8.8	29
7	Towards stable and highly active IrO₂ catalysts supported on doped tin oxides for the oxygen evolution reaction in acidic media. E3S Web of Conferences, 2022, 334, 03001.	0.2	4
8	PEM Single Cells under Differential Conditions: Full Factorial Parameterization of the ORR and HOR Kinetics and Loss Analysis. Journal of the Electrochemical Society, 2022, 169, 014503.	1.3	11
9	Deciphering the Exceptional Performance of NiFe Hydroxide for the Oxygen Evolution Reaction in an Anion Exchange Membrane Electrolyzer. ACS Applied Energy Materials, 2022, 5, 2221-2230.	2.5	22
10	Operation of a Solid Oxide Fuel Cell Reactor with Multiple Stacks in a Pressured System with Fuel Gas Recirculation. Energy Technology, 2022, 10, .	1.8	6
11	Nanomaterials and films for polymer electrolyte membrane fuel cells and solid oxide cells by flame spray pyrolysis. Renewable and Sustainable Energy Reviews, 2022, 158, 112080.	8.2	9
12	Towards Replacing Titanium with Copper in the Bipolar Plates for Proton Exchange Membrane Water Electrolysis. Materials, 2022, 15, 1628.	1.3	13
13	Identification of the Underlying Processes in Impedance Response of Sulfur/Carbon Composite Cathodes at Different SOC. Journal of the Electrochemical Society, 2022, 169, 030505.	1.3	3
14	<scp>CHEMampere</scp>: Technologies for sustainable chemical production with renewable electricity and <scp>CO₂</scp>, <scp>N₂</scp>, <scp>O₂</scp>, and <scp>H₂O</scp>. Canadian Journal of Chemical Engineering, 2022, 100, 2736-2761.	0.9	9
15	Wetting Behavior of Aprotic Liâ€“Air Battery Electrolytes. Advanced Materials Interfaces, 2022, 9, 2101569.	1.9	4
16	A New Approach to Modeling Solid Oxide Cell Reactors with Multiple Stacks for Process System Simulation. Journal of the Electrochemical Society, 2022, 169, 054530.	1.3	2
17	Longâ€Term Operation of Nbâ€Coated Stainless Steel Bipolar Plates for Proton Exchange Membrane Water Electrolyzers. Advanced Energy and Sustainability Research, 2022, 3, .	2.8	8
18	Exploring critical parameters of electrode fabrication in polymer electrolyte membrane fuel cells. Journal of Power Sources, 2022, 540, 231638.	4.0	3

#	Article	IF	Citations
19	Failure mode diagnosis in proton exchange membrane fuel cells using local electrochemical noise. Journal of Power Sources, 2022, 541, 231582.	4.0	3
20	Operational Aspects of a Perovskite Chromite-Based Fuel Electrode in Solid Oxide Electrolysis Cells (SOEC). ACS Applied Energy Materials, 2022, 5, 8143-8156.	2.5	7
21	Hydrogen Oxidation Artifact During Platinum Oxide Reduction in Cyclic Voltammetry Analysis of Low-Loaded PEMFC Electrodes. Electrocatalysis, 2021, 12, 45-55.	1.5	21
22	Exploring the Interface of Skinâ€Layered Titanium Fibers for Electrochemical Water Splitting. Advanced Energy Materials, 2021, 11, 2002926.	10.2	48
23	Understanding the Nature of Solidâ€Electrolyte Interphase on Lithium Metal in Liquid Electrolytes: A Review on Growth, Properties, and Applicationâ€Related Challenges. Batteries and Supercaps, 2021, 4, 909-922.	2.4	13
24	Review on mechanisms and recovery procedures for reversible performance losses in polymer electrolyte membrane fuel cells. Journal of Power Sources, 2021, 488, 229375.	4.0	34
25	Importance of Timeâ€Dependent Wetting Behavior of Gasâ€Diffusion Electrodes for Reactivity Determination. Chemie-Ingenieur-Technik, 2021, 93, 1015-1019.	0.4	8
26	Degradation Effects in Metalâ€“Sulfur Batteries. ACS Applied Energy Materials, 2021, 4, 2365-2376.	2.5	12
27	Performance and Limitations of Nickelâ€Doped Chromite Anodes in Electrolyteâ€Supported Solid Oxide Fuel Cells. ChemSusChem, 2021, 14, 2401-2413.	3.6	9
28	A review of functions, attributes, properties and measurements for the quality control of proton exchange membrane fuel cell components. Journal of Power Sources, 2021, 491, 229540.	4.0	42
29	Influence of Organic Additives for Zinc-Air Batteries on Cathode Stability and Performance. Journal of the Electrochemical Society, 2021, 168, 050531.	1.3	5
30	Activation mechanisms in the catalyst coated membrane of PEM fuel cells. Progress in Energy and Combustion Science, 2021, 85, 100924.	15.8	33
31	Increasing the performance of an anion-exchange membrane electrolyzer operating in pure water with a nickel-based microporous layer. Joule, 2021, 5, 1776-1799.	11.7	85
32	Porous Transport Layers for Proton Exchange Membrane Electrolysis Under Extreme Conditions of Current Density, Temperature, and Pressure. Advanced Energy Materials, 2021, 11, 2100630.	10.2	60
33	Full Factorial In Situ Characterization of Ionomer Properties in Differential PEM Fuel Cells. Journal of the Electrochemical Society, 2021, 168, 084504.	1.3	10
34	Modeling of Electronâ€Transfer Kinetics in Magnesium Electrolytes: Influence of the Solvent on the Battery Performance. ChemSusChem, 2021, 14, 4820-4835.	3.6	15
35	Porous Transport Layers for Proton Exchange Membrane Electrolysis Under Extreme Conditions of Current Density, Temperature, and Pressure (Adv. Energy Mater. 33/2021). Advanced Energy Materials, 2021, 11, 2170131.	10.2	3
36	Exploring the thermodynamics of the bromine electrode in concentrated solutions for improved parametrisation of hydrogenâ€“bromine flow battery models. Journal of Power Sources, 2021, 508, 230202.	4.0	6

#	Article	IF	Citations
37	Evaluation of electrochemical impedance spectra of - batteries (Li-air/Zn-air) for aqueous electrolytes. Electrochimica Acta, 2021, 396, 139261.	2.6	11
38	Degradation study on tin- and bismuth-based gas-diffusion electrodes during electrochemical CO2 reduction in highly alkaline media. Journal of Energy Chemistry, 2021, 62, 367-376.	7.1	30
39	Comparison of different performance recovery procedures for polymer electrolyte membrane fuel cells. Applied Energy, 2021, 302, 117490.	5.1	14
40	Quantification of effects of performance recovery procedures for polymer electrolyte membrane fuel cells. Journal of Power Sources, 2021, 512, 230467.	4.0	7
41	Ultramicroporous carbon aerogels encapsulating sulfur as the cathode for lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2021, 9, 6508-6519.	5.2	30
42	A-site deficient chromite with in situ Ni exsolution as a fuel electrode for solid oxide cells (SOCs). Journal of Materials Chemistry A, 2021, 9, 5685-5701.	5.2	22
43	A Segmented Cell Measuring Technique for Current Distribution Measurements in Batteries, Exemplified by the Operando Investigation of a Zn-Air Battery. Journal of the Electrochemical Society, 2021, 168, 120530.	1.3	3
44	High Temperature Coâ€electrolysis for Powerâ€toâ€X. Chemie-Ingenieur-Technik, 2020, 92, 45-52.	0.4	14
45	Local impact of load cycling on degradation in polymer electrolyte fuel cells. Applied Energy, 2020, 259, 114210.	5.1	35
46	Improving plasma sprayed Raney-type nickelâ€“molybdenum electrodes towards high-performance hydrogen evolution in alkaline medium. Scientific Reports, 2020, 10, 10948.	1.6	24
47	Spatially graded porous transport layers for gas evolving electrochemical energy conversion: High performance polymer electrolyte membrane electrolyzers. Energy Conversion and Management, 2020, 226, 113545.	4.4	34
48	Influence of cycling profile, depth of discharge and temperature on commercial LFP/C cell ageing: post-mortem material analysis of structure, morphology and chemical composition. Journal of Applied Electrochemistry, 2020, 50, 1101-1117.	1.5	14
49	Pressurized operation of solid oxide electrolysis stacks: An experimental comparison of the performance of 10-layer stacks with fuel electrode and electrolyte supported cell concepts. Journal of Power Sources, 2020, 475, 228682.	4.0	21
50	Investigation of the Longâ€term Stability of Solid Oxide Electrolysis Stacks under Pressurized Conditions in Exothermic Steam and Coâ€electrolysis Mode. Fuel Cells, 2020, 20, 592-607.	1.5	6
51	Revealing Mechanistic Processes in Gas-Diffusion Electrodes During CO₂ Reduction via Impedance Spectroscopy. ACS Sustainable Chemistry and Engineering, 2020, 8, 13759-13768.	3.2	25
52	Elucidating the Performance Limitations of Alkaline Electrolyte Membrane Electrolysis: Dominance of Anion Concentration in Membrane Electrode Assembly. ChemElectroChem, 2020, 7, 3951-3960.	1.7	33
53	Insights into Self-Discharge of Lithiumâ€ and Magnesiumâ€“Sulfur Batteries. ACS Applied Energy Materials, 2020, 3, 8457-8474.	2.5	26
54	Advancement of Segmented Cell Technology in Low Temperature Hydrogen Technologies. Energies, 2020, 13, 2301.	1.6	10

#	Article	IF	Citations
55	Influence of Cycling Profile, Depth of Discharge and Temperature on Commercial LFP/C Cell Ageing: Cell Level Analysis with ICA, DVA and OCV Measurements. Journal of the Electrochemical Society, 2020, 167, 110502.	1.3	12
56	Toward developing accelerated stress tests for proton exchange membrane electrolyzers. Current Opinion in Electrochemistry, 2020, 21, 225-233.	2.5	50
57	Investigation of CO₂ Electrolysis on Tin Foil by Electrochemical Impedance Spectroscopy. ACS Sustainable Chemistry and Engineering, 2020, 8, 5192-5199.	3.2	27
58	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
59	Electricity Arbitration and Sector Coupling with an Experimentally Validated Reversible Solid Oxide Cell Reactor System Connected to the Natural Gas Grid. Energy Technology, 2020, 8, 1900618.	1.8	3
60	Investigation of Magnesiumâ€“Sulfur Batteries using Electrochemical Impedance Spectroscopy. Electrochimica Acta, 2020, 338, 135787.	2.6	48
61	Comparison of fresh and aged lithium iron phosphate cathodes using a tailored electrochemical strain microscopy technique. Beilstein Journal of Nanotechnology, 2020, 11, 583-596.	1.5	6
62	Experimental and numerical study on catalyst layer of polymer electrolyte membrane fuel cell prepared with diverse drying methods. Journal of Power Sources, 2020, 461, 228169.	4.0	25
63	Experimental Analysis of the Co-Electrolysis Operation under Pressurized Conditions with a 10 Layer SOC Stack. Journal of the Electrochemical Society, 2020, 167, 024504.	1.3	11
64	(Invited) Mitigating PEMFC Durability Limitations. ECS Meeting Abstracts, 2020, MA2020-02, 2159-2159.	0.0	0
65	High Performance and Durable Membrane Electrode Assemblies with Free-Standing Binder-Free Plasma Sprayed Electrodes and Nanocomposite Membranes for Anion Exchange Membrane Electrolyzer. ECS Meeting Abstracts, 2020, MA2020-02, 2441-2441.	0.0	0
66	Electrochemical Impedance Analysis of Symmetrical Ni/Gadolinium-Doped Ceria (CGO10) Electrodes in Electrolyte-Supported Solid Oxide Cells. Journal of the Electrochemical Society, 2019, 166, F865-F872.	1.3	38
67	Comparative investigation into the performance and durability of long and short side chain ionomers in Polymer Electrolyte Membrane Fuel Cells. Journal of Power Sources, 2019, 439, 227078.	4.0	37
68	Detecting and modeling oxygen bubble evolution and detachment in proton exchange membrane water electrolyzers. International Journal of Hydrogen Energy, 2019, 44, 27190-27203.	3.8	17
69	Analysis of experimental results of a Pressurized Solid Oxide Fuel Cell System simulating a Hybrid Power Plant. E3S Web of Conferences, 2019, 113, 02007.	0.2	1
70	Operando and Ex-Situ Investigation of PEMFC Degradation. ECS Transactions, 2019, 92, 261-276.	0.3	3
71	High Performance Anion Exchange Membrane Electrolysis Using Plasma-Sprayed, Non-Precious-Metal Electrodes. ACS Applied Energy Materials, 2019, 2, 7903-7912.	2.5	80
72	Transient Modelling of Solid Oxide Cell Modules and 50 kW Experimental Validation. ECS Transactions, 2019, 91, 2089-2096.	0.3	2

#	Article	IF	Citations
73	Analysis of pressurized operation of 10 layer solid oxide electrolysis stacks. International Journal of Hydrogen Energy, 2019, 44, 4570-4581.	3.8	40
74	Methanol as antifreeze agent for cold start of automotive polymer electrolyte membrane fuel cells. Applied Energy, 2019, 238, 1-10.	5.1	39
75	Utilizing Formate as an Energy Carrier by Coupling CO₂ Electrolysis with Fuel Cell Devices. Chemie-Ingenieur-Technik, 2019, 91, 872-882.	0.4	30
76	Measuring and modeling mass transport losses in proton exchange membrane water electrolyzers using electrochemical impedance spectroscopy. Journal of Power Sources, 2019, 431, 189-204.	4.0	44
77	Minimizing mass-transport loss in proton exchange membrane fuel cell by freeze-drying of cathode catalyst layers. Journal of Power Sources, 2019, 427, 309-317.	4.0	43
78	Initial approaches in benchmarking and round robin testing for proton exchange membrane water electrolyzers. International Journal of Hydrogen Energy, 2019, 44, 9174-9187.	3.8	80
79	Enveloping of catalyst powder by ionomer for dry spray coating in polymer electrolyte membrane fuel cells. Journal of Power Sources, 2019, 424, 82-90.	4.0	14
80	Visualization of Local Ionic Concentration and Diffusion Constants Using a Tailored Electrochemical Strain Microscopy Method. Journal of the Electrochemical Society, 2019, 166, A5496-A5502.	1.3	7
81	Tolerance and Recovery of Ultralow-Loaded Platinum Anode Electrodes upon Carbon Monoxide and Hydrogen Sulfide Exposure. Molecules, 2019, 24, 3514.	1.7	19
82	Understanding the Role of Water Flow and the Porous Transport Layer on the Performance of Proton Exchange Membrane Water Electrolyzers. ACS Sustainable Chemistry and Engineering, 2019, 7, 1600-1610.	3.2	31
83	Highly active nano-sized iridium catalysts: synthesis and operando spectroscopy in a proton exchange membrane electrolyzer. Chemical Science, 2018, 9, 3570-3579.	3.7	86
84	Influence of Water and Temperature onÂIonomer in Catalytic Layers and Membranes of Fuel Cells and Electrolyzers Evaluated by AFM. Fuel Cells, 2018, 18, 239-250.	1.5	19
85	High-Resolution Analysis of Ionomer Loss in Catalytic Layers after Operation. Journal of the Electrochemical Society, 2018, 165, F3139-F3147.	1.3	34
86	Sulfur poisoning of Ni/Gadolinium-doped ceria anodes: A long-term study outlining stable solid oxide fuel cell operation. Journal of Power Sources, 2018, 380, 26-36.	4.0	26
87	Investigation of the Influence of Nanostructured LiNi_{0.33}Co_{0.33}Mn_{0.33}O₂Lithium-Ion Battery Electrodes on Performance and Aging. Journal of the Electrochemical Society, 2018, 165, A273-A282.	1.3	23
88	Analysis of the influence of heat transfer on the stationary operation and performance of a solid oxide fuel cell/gas turbine hybrid power plant. Applied Energy, 2018, 211, 479-491.	5.1	19
89	A parameter study of solid oxide electrolysis cell degradation: Microstructural changes of the fuel electrode. Electrochimica Acta, 2018, 276, 162-175.	2.6	63
90	Investigation of activity and stability of carbon supported oxynitrides with ultra-low Pt concentration as ORR catalyst for PEM fuel cells. Journal of Electroanalytical Chemistry, 2018, 819, 312-321.	1.9	24

#	Article	IF	Citations
91	Impact of Platinum Loading on Performance and Degradation of Polymer Electrolyte Fuel Cell Electrodes Studied in a Rainbow Stack. Fuel Cells, 2018, 18, 270-278.	1.5	34
92	Verification of Redox Flow Batteriesâ€™ Functionality by Electrochemical Impedance Spectroscopy Tests. Batteries, 2018, 4, 58.	2.1	6
93	Degradation of Proton Exchange Membrane (PEM) Electrolysis: The Influence of Current Density. ECS Transactions, 2018, 86, 695-700.	0.3	20
94	Transient reversible solid oxide cell reactor operation â€“ Experimentally validated modeling and analysis. Applied Energy, 2018, 232, 473-488.	5.1	35
95	Structure, Properties, and Degradation of Ultrathin Ionomer Films in Catalytic Layers of Fuel Cells. ECS Transactions, 2018, 86, 179-191.	0.3	3
96	Physical modeling of polymer-electrolyte membrane fuel cells: Understanding water management and impedance spectra. Journal of Power Sources, 2018, 391, 148-161.	4.0	59
97	Operando Evidence for a Universal Oxygen Evolution Mechanism on Thermal and Electrochemical Iridium Oxides. Journal of Physical Chemistry Letters, 2018, 9, 3154-3160.	2.1	121
98	Cost-Effective PEM Electrolysis: The Quest to Achieve Superior Efficiencies with Reduced Investment. ECS Transactions, 2018, 85, 3-13.	0.3	8
99	Structure, Properties, and Degradation of Nanothin Ionomer Films in Fuel Cell Catalytic Layers. ECS Transactions, 2018, 85, 889-903.	0.3	1
100	Power-to-X with High Temperature Solid Oxide Cells: Concepts, Challenges & Prospects. ECS Transactions, 2018, 85, 1-11.	0.3	1
101	Fuel Cells and Hydrogen: Break-up into the Future. Fuel Cells, 2018, 18, 228-228.	1.5	0
102	Degradation of Proton Exchange Membrane (PEM) Electrolysis: The Influence of Current Density. ECS Meeting Abstracts, 2018, , .	0.0	0
103	Durability of PEMFC Electrodes and Reduction of Pt Loading. ECS Meeting Abstracts, 2018, , .	0.0	0
104	Structure, Properties, and Degradation of Ultrathin Ionomer Films in Fuel Cell Catalytic Layers. ECS Meeting Abstracts, 2018, , .	0.0	1
105	Structure, Properties, and Degradation of Ultrathin Ionomer Films in Catalytic Layers of Fuel Cells Using Atomic Force Microscopy. ECS Meeting Abstracts, 2018, , .	0.0	0
106	Cost-Effective PEM Electrolysis: The Quest to Achieve Superior Efficiencies with Reduced Investment. ECS Meeting Abstracts, 2018, , .	0.0	0
107	Investigation of the Solid Electrolyte Interphase Formation at Graphite Anodes in Lithium-Ion Batteries with Electrochemical Impedance Spectroscopy. Electrochimica Acta, 2017, 228, 652-658.	2.6	130
108	Local Impact of Pt Nanodeposits on Ionomer Decomposition in Polymer Electrolyte Membranes. Electrocatalysis, 2017, 8, 501-508.	1.5	12

#	Article	IF	Citations
109	Improving the activity and stability of Ir catalysts for PEM electrolyzer anodes by SnO₂:Sb aerogel supports: does V addition play an active role in electrocatalysis?. Journal of Materials Chemistry A, 2017, 5, 3172-3178.	5.2	50
110	Operando X-ray diffraction during battery cycling at elevated temperatures: A quantitative analysis of lithium-graphite intercalationÂcompounds. Carbon, 2017, 116, 255-263.	5.4	49
111	Highly active anode electrocatalysts derived from electrochemical leaching of Ru from metallic Ir 0.7 Ru 0.3 for proton exchange membrane electrolyzers. Nano Energy, 2017, 34, 385-391.	8.2	106
112	Local resolved investigation of hydrogen crossover in polymer electrolyte fuel cell. Energy, 2017, 128, 357-365.	4.5	26
113	Hydration and dehydration cycles in polymer electrolyte fuel cells operated with wet anode and dry cathode feed: A neutron imaging and modeling study. Journal of Power Sources, 2017, 359, 634-655.	4.0	49
114	Assessment of Sulfur Poisoning of Ni/CGO-Based SOFC Anodes. ECS Transactions, 2017, 77, 149-156.	0.3	5
115	Low-Cost and Durable Bipolar Plates for Proton Exchange Membrane Electrolyzers. Scientific Reports, 2017, 7, 44035.	1.6	88
116	Local impact of humidification on degradation in polymer electrolyte fuel cells. Journal of Power Sources, 2017, 352, 42-55.	4.0	44
117	Insights into solid electrolyte interphase formation on alternative anode materials in lithium-ion batteries. Journal of Applied Electrochemistry, 2017, 47, 249-259.	1.5	17
118	Theoretical and experimental study of Reversible Solid Oxide Cell (r-SOC) systems for energy storage. Energy, 2017, 141, 202-214.	4.5	64
119	Sulfur Poisoning of Electrochemical Reformate Conversion on Nickel/Gadolinium-Doped Ceria Electrodes. ACS Catalysis, 2017, 7, 7760-7771.	5.5	29
120	Magnesium Sulfur Battery with a New Magnesium Powder Anode. ECS Transactions, 2017, 77, 413-424.	0.3	22
121	In Situ Studies of Solid Electrolyte Interphase (SEI) Formation on Crystalline Carbon Surfaces by Neutron Reflectometry and Atomic Force Microscopy. ACS Applied Materials & Interfaces, 2017, 9, 35794-35801.	4.0	59
122	Comprehensive investigation of novel pore-graded gas diffusion layers for high-performance and cost-effective proton exchange membrane electrolyzers. Energy and Environmental Science, 2017, 10, 2521-2533.	15.6	147
123	Process Design Study of Reversible Solid Oxide Cell (r-SOC) System for Coupling Energy Storage and Hydrogen Economy Supply Chain. ECS Transactions, 2017, 78, 2925-2932.	0.3	5
124	Sulfur Poisoning of Ni/CGO Anodes: A Long-Term Degradation Study. ECS Transactions, 2017, 78, 1285-1291.	0.3	9
125	Membrane architecture with ion-conducting channels through swift heavy ion induced graft copolymerization. Journal of Materials Chemistry A, 2017, 5, 24826-24835.	5.2	10
126	Evaluation of the Effect of Sulfur on the Performance of Nickel/Gadoliniumâ€Doped Ceria Based Solid Oxide Fuel Cell Anodes. ChemSusChem, 2017, 10, 587-599.	3.6	43

#	Article	IF	Citations
127	An Investigation of PEFC Subâ€Zero Startup: Influence of Initial Conditions and Residual Water. Fuel Cells, 2017, 17, 778-785.	1.5	13
128	Process modeling of a reversible solid oxide cell (r-SOC) energy storage system utilizing commercially available SOC reactor. Energy Conversion and Management, 2017, 142, 477-493.	4.4	53
129	An Investigation of PEFC Sub-Zero Startup: Evidence of Local Freezing Effects. Journal of the Electrochemical Society, 2016, 163, F1535-F1542.	1.3	19
130	Nanosized IrO‹sub›‹i›x‹/i›‹/sub›â€“Ir Catalyst with Relevant Activity for Anodes of Proton Exchange Membrane Electrolysis Produced by a Costâ€Effective Procedure. Angewandte Chemie - International Edition, 2016, 55, 742-746.	7.2	173
131	A dual mesopore C-aerogel electrode for a high energy density supercapacitor. Current Applied Physics, 2016, 16, 658-664.	1.1	16
132	Correlation of capacity fading processes and electrochemical impedance spectra in lithium/sulfur cells. Journal of Power Sources, 2016, 323, 107-114.	4.0	55
133	Quantitative in Situ Analysis of Ionomer Structure in Fuel Cell Catalytic Layers. ACS Applied Materials & Interfaces, 2016, 8, 27044-27054.	4.0	87
134	Uncovering the Stabilization Mechanism in Bimetallic Rutheniumâ€“Iridium Anodes for Proton Exchange Membrane Electrolyzers. Journal of Physical Chemistry Letters, 2016, 7, 3240-3245.	2.1	58
135	Evaluation of reversible and irreversible degradation rates of polymer electrolyte membrane fuel cells tested in automotive conditions. Journal of Power Sources, 2016, 327, 86-95.	4.0	74
136	Gas Recirculation at the Hydrogen Electrode of Solid Oxide Fuel Cell and Solid Oxide Electrolysis Cell Systems. Fuel Cells, 2016, 16, 584-590.	1.5	14
137	Coated Stainless Steel Bipolar Plates for Proton Exchange Membrane Electrolyzers. Journal of the Electrochemical Society, 2016, 163, F3119-F3124.	1.3	53
138	Electrochemical Analysis of Synthetized Iridium Nanoparticles for Oxygen Evolution Reaction in Acid Medium. ECS Transactions, 2016, 72, 1-9.	0.3	7
139	Proton Exchange Membrane Electrolyzer Systems Operating Dynamically at High Current Densities. ECS Transactions, 2016, 72, 11-21.	0.3	5
140	Durable Membrane Electrode Assemblies for Proton Exchange Membrane Electrolyzer Systems Operating at High Current Densities. Electrochimica Acta, 2016, 210, 502-511.	2.6	115
141	Novel solvent-free direct coating process for battery electrodes and their electrochemical performance. Journal of Power Sources, 2016, 306, 758-763.	4.0	44
142	Analysis of the Influence of Temperature and Gas Humidity on the Performance Stability of Polymer Electrolyte Membrane Fuel Cells. Journal of the Electrochemical Society, 2016, 163, F150-F159.	1.3	30
143	Protective coatings on stainless steel bipolar plates for proton exchange membrane (PEM) electrolysers. Journal of Power Sources, 2016, 307, 815-825.	4.0	131
144	Towards developing a backing layer for proton exchange membrane electrolyzers. Journal of Power Sources, 2016, 311, 153-158.	4.0	110

#	Article	IF	Citations
145	Nanostructured Ir-supported on Ti₄O₇ as a cost-effective anode for proton exchange membrane (PEM) electrolyzers. Physical Chemistry Chemical Physics, 2016, 18, 4487-4495.	1.3	52
146	High Temperature Polymer Electrolyte Fuel Cell Systems for Aircraft Applications. , 2016, , 511-525.		5
147	Structure and conductivity of fuel cell membranes and catalytic layers investigated by AFM. Materials Research Society Symposia Proceedings, 2015, 1774, 19-24.	0.1	3
148	Water Distribution Analysis in the Outer Perimeter Region of Technical PEFC Based on Neutron Radiography. Journal of the Electrochemical Society, 2015, 162, F677-F685.	1.3	22
149	Highly Stable Carbonâ€Free Ag/Co₃O₄â€Cathodes for Lithiumâ€Air Batteries: Electrochemical and Structural Investigations. Advanced Energy Materials, 2015, 5, 1500763.	10.2	26
150	Membranes, Electrodes, and Membrane-Electrodes Assemblies Analyzed before and after Operation by Atomic Force Microscopy. ECS Transactions, 2015, 68, 3-12.	0.3	4
151	Ohmic resistance of nickel infiltrated chromium oxide scales in solid oxide fuel cell metallic interconnects. Solid State Ionics, 2015, 283, 38-51.	1.3	4
152	Fabrication of sulfur cathodes by wet-powder spraying and the understanding of degradation. Electrochimica Acta, 2015, 157, 351-358.	2.6	5
153	Modeling of a thermally integrated 10ÂkWe planar solid oxide fuel cell system with anode offgas recycling and internal reforming by discretization in flow direction. Journal of Power Sources, 2015, 279, 656-666.	4.0	24
154	A model-based approach for current voltage analyses to quantify degradation and fuel distribution in solid oxide fuel cell stacks. Journal of Power Sources, 2015, 288, 409-418.	4.0	12
155	Atomic Force Microscopy on Cross Sections of Fuel Cell Membranes, Electrodes, and Membrane Electrode Assemblies. Electrochimica Acta, 2015, 162, 86-99.	2.6	31
156	Scaling-up and characterization of ultralow-loading MEAs made-up by electrospray. International Journal of Hydrogen Energy, 2015, 40, 5384-5389.	3.8	21
157	Improved Water Management with Thermally Sprayed Coatings on Stainless Steel Bipolar Plates of PEMFC. ECS Transactions, 2015, 69, 223-239.	0.3	2
158	The Influence of Sulfur Formation on Performance and Reforming Chemistry of SOFC Anodes Operating on Methane Containing Fuel. Journal of the Electrochemical Society, 2015, 162, F1324-F1332.	1.3	14
159	Operational Aspects for Direct Coupling of Gas Turbine and Solid Oxide Fuel Cells. ECS Transactions, 2015, 68, 79-84.	0.3	4
160	Construction of a 30kW SOFC Gas Turbine Hybrid Power Plant. ECS Transactions, 2015, 68, 85-88.	0.3	10
161	Lifetime and Performance Prediction of SOFC Anodes Operated with Trace Amounts of Hydrogen Sulfide. ECS Transactions, 2015, 68, 1373-1382.	0.3	2
162	Systematic Parameter Study on the Influence of Humidification and Current Density on SOEC Degradation. ECS Transactions, 2015, 68, 3553-3561.	0.3	8

#	Article	IF	Citations
163	Elementary Kinetic Numerical Simulation of Ni/YSZ SOFC Anode Performance Considering Sulfur Poisoning. Journal of the Electrochemical Society, 2015, 162, F65-F75.	1.3	27
164	A Highly Efficient Bifunctional Catalyst for Alkaline Air-Electrodes Based on a Ag and Co3O4 Hybrid: RRDE and Online DEMS Insights. Electrochimica Acta, 2015, 151, 332-339.	2.6	58
165	Insight into the Structure and Nanoscale Conductivity of Fluorinated Ionomer Membranes. Journal of the Electrochemical Society, 2014, 161, F1214-F1223.	1.3	26
166	Temperature Effect due to Internal Reforming in Pressurized SOFC. Journal of the Electrochemical Society, 2014, 161, F674-F678.	1.3	2
167	Effect of the Inlet Gas Humidification on PEMFC Behavior and Current Density Distribution. ECS Transactions, 2014, 64, 603-617.	0.3	10
168	Low Cost Bipolar Plates for Large Scale PEM Electrolyzers. ECS Transactions, 2014, 64, 1039-1048.	0.3	28
169	Screening and further investigations on promising bi-functional catalysts for metalâ€“air batteries with an aqueous alkaline electrolyte. Journal of Applied Electrochemistry, 2014, 44, 73-85.	1.5	17
170	Bifunctional, Carbon-Free Nickel/Cobalt-Oxide Cathodes for Lithium-Air Batteries with an Aqueous Alkaline Electrolyte. Electrochimica Acta, 2014, 149, 355-363.	2.6	21
171	Influence of the Distribution of Platinum Deposits on the Properties and Degradation of Platinum-Impregnated Nafion Membranes. Journal of the Electrochemical Society, 2014, 161, F1416-F1426.	1.3	23
172	Model-based prediction of the ohmic resistance of metallic interconnects from oxide scale growth based on scanning electron microscopy. Journal of Power Sources, 2014, 272, 595-605.	4.0	14
173	Theoretical study on pressurized operation of solid oxide electrolysis cells. International Journal of Hydrogen Energy, 2014, 39, 12434-12439.	3.8	39
174	Modified carbon-free silver electrodes for the use as cathodes in lithiumâ€“air batteries with an aqueous alkaline electrolyte. Journal of Power Sources, 2014, 265, 299-308.	4.0	30
175	Experimental and Theoretical Analysis of Products and Reaction Intermediates of Lithiumâ€“Sulfur Batteries. Journal of Physical Chemistry C, 2014, 118, 12106-12114.	1.5	101
176	Reaction and transport in Ag/Ag2O gas diffusion electrodes of aqueous Liâ€“O2 batteries: Experiments and modeling. Journal of Power Sources, 2014, 264, 320-332.	4.0	30
177	Atomic force microscopy studies of conductive nanostructures in solid polymer electrolytes. Electrochimica Acta, 2013, 110, 292-305.	2.6	31
178	Impact of delithiated Li0FePO4 on the decomposition of LiPF6-based electrolyte studied by accelerating rate calorimetry. Journal of Power Sources, 2013, 236, 151-157.	4.0	53
179	Solid Oxide Fuel Cell â€“ Gas Turbine Hybrid Power Plant. ECS Transactions, 2013, 57, 67-72.	0.3	7
180	Temperature Effect Due to Internal Reforming in Pressurized SOFC. ECS Transactions, 2013, 57, 401-409.	0.3	0

#	Article	IF	Citations
181	Cr 2 O 3 scale growth rates on metallic interconnectors derived from 40,000Âh solid oxide fuel cell stack operation. Journal of Power Sources, 2013, 243, 508-518.	4.0	38
182	In-situ X-ray diffraction studies of lithiumâ€“sulfur batteries. Journal of Power Sources, 2013, 226, 313-319.	4.0	195
183	Hybrid life support systems with integrated fuel cells and photobioreactors for a lunar base. Aerospace Science and Technology, 2013, 24, 169-176.	2.5	12
184	Characterization of electrolyte layers of plasma-sprayed metal supported solid oxide fuel cells. Solid State Ionics, 2013, 243, 30-35.	1.3	0
185	Multifunctional fuel cell system in an aircraft environment: An investigation focusing on fuel tank inerting and water generation. Aerospace Science and Technology, 2013, 29, 330-338.	2.5	33
186	Investigations of lithiumâ€“sulfur batteries using electrochemical impedance spectroscopy. Electrochimica Acta, 2013, 97, 42-51.	2.6	353
187	In SituX-Ray Diffraction and Stress Analysis of Solid Oxide Fuel Cells. Fuel Cells, 2013, 13, 404-409.	1.5	5
188	Atomic Force Microscopy Studies of Conductive Nanostructures in Solid Polymer Electrolytes. ECS Transactions, 2013, 58, 595-605.	0.3	1
189	Oscillation of PEFC under Low Cathode Humidification: Effect of Gravitation and Bipolar Plate Design. Journal of the Electrochemical Society, 2013, 160, F636-F644.	1.3	9
190	Self-Supporting Microporous Layers (MPLs) for PEM Fuel Cells. ECS Transactions, 2013, 58, 1391-1399.	0.3	3
191	Microscopic Investigation of Platinum Deposition in PEMFC Cross-Sections Using AFM and SEM. Journal of the Electrochemical Society, 2013, 160, F687-F697.	1.3	23
192	Influence of Platinum Precipitation on Properties and Degradation of Nafion(R) Membranes. ECS Transactions, 2013, 58, 969-990.	0.3	9
193	Oscillation of PEFC under Low Cathode Humidification: Effect of Gravitation and Bipolar Plate Design. ECS Transactions, 2013, 58, 209-221.	0.3	1
194	Atomic Force Microscopy Detection of Electronic Short-Circuits in Solid Polymer Electrolytes Fuel Cell Membranes after Accelerated Degradation. ECS Transactions, 2013, 58, 1085-1096.	0.3	0
195	A validated multiâ€scale model of a SOFC stack at elevated pressure. Fuel Cells, 2013, 13, 773-780.	1.5	11
196	AFM as an analysis tool for high-capacity sulfur cathodes for Liâ€“S batteries. Beilstein Journal of Nanotechnology, 2013, 4, 611-624.	1.5	24
197	Microscopic Analysis of Current and Mechanical Properties of NafionÂ® Studied by Atomic Force Microscopy. Membranes, 2012, 2, 783-803.	1.4	47
198	Pressurized Solid Oxide Fuel Cells with Reformate as Fuel. ECS Transactions, 2012, 41, 43-53.	0.3	2

#	Article	IF	Citations
199	Pressurized Solid Oxide Fuel Cells with Reformate as Fuel. Journal of the Electrochemical Society, 2012, 159, F711-F716.	1.3	14
200	Direct conversion of dimethyl ether in high-temperature polymer electrolyte fuel cells under stationary and dynamic conditions. Journal of Applied Electrochemistry, 2012, 42, 833-841.	1.5	3
201	Infrared Studies of the Potential Controlled Adsorption of Sodium Dodecyl Sulfate at the Au(111) Electrode Surface. Langmuir, 2012, 28, 2455-2464.	1.6	38
202	Theoretical Study on Pressurized Operation of Solid Oxide Electrolysis Cells. ECS Meeting Abstracts, 2012, , .	0.0	0
203	Fuel cells for civil aircraft application: On-board production of power, water and inert gas. Chemical Engineering Research and Design, 2012, 90, 3-10.	2.7	40
204	Optimizing the relative humidity to improve the stability of a proton exchange membrane by segmented fuel cell technology. International Journal of Hydrogen Energy, 2012, 37, 3373-3381.	3.8	31
205	Effect of pressure variation on power density and efficiency of solid oxide fuel cells. Electrochimica Acta, 2012, 66, 158-163.	2.6	29
206	Effect of open circuit voltage on degradation of a short proton exchange membrane fuel cell stack with bilayer membrane configurations. Journal of Power Sources, 2012, 205, 290-300.	4.0	27
207	Degradation of a PEM fuel cell stack with NafionÂ® membranes of different thicknesses. Part II: Ex situ diagnosis. Journal of Power Sources, 2012, 205, 324-334.	4.0	74
208	Investigation of Membrane Pinhole Effects in Polymer Electrolyte Fuel Cells by Locally Resolved Current Density. Journal of the Electrochemical Society, 2011, 158, B11.	1.3	52
209	Fuel Cells For Aircraft Applications. ECS Transactions, 2011, 30, 271-280.	0.3	11
210	Atomic force microscopy and infrared analysis of aging processes of polymer electrolyte membrane fuel cell components. Journal of Electroanalytical Chemistry, 2011, 662, 240-250.	1.9	11
211	Correlation of Oscillations of PEM Fuel Cells at Low Cathode Humidifcation with Nanoscale Membrane Properties. ECS Meeting Abstracts, 2011, , .	0.0	0
212	The influence of CO on the current density distribution of high temperature polymer electrolyte membrane fuel cells. Electrochimica Acta, 2011, 56, 9467-9475.	2.6	47
213	Fuel cell system modeling for solid oxide fuel cell/gas turbine hybrid power plants, Part I: Modeling and simulation framework. Journal of Power Sources, 2011, 196, 1205-1215.	4.0	36
214	Pressurized solid oxide fuel cells: Experimental studies and modeling. Journal of Power Sources, 2011, 196, 7195-7202.	4.0	63
215	Influence of Pressurisation on SOFC Performance and Durability: AÂTheoretical Study. Fuel Cells, 2011, 11, 581-591.	1.5	49
216	Bifunctional electrodes for unitised regenerative fuel cells. Electrochimica Acta, 2011, 56, 4287-4293.	2.6	51

#	Article	IF	Citations
217	Cathode Materials for Polymer Electrolyte Fuel Cells Based on Vertically Aligned Carbon Filaments. ECS Transactions, 2011, 41, 1089-1097.	0.3	4
218	Local In-Situ Analysis of PEM Fuel Cells by Impedance Spectoscopy and Raman Measurements. ECS Transactions, 2011, 30, 65-76.	0.3	3
219	Monitoring Reactions in Alkaline Direct Ethanol Fuel Cells Assembled with Non-PT-Catalyst. ECS Transactions, 2011, 30, 345-351.	0.3	2
220	Correlation of Oscillation of Polymer Electrolyte Membrane Fuel Cells at Low Cathode Humidification with Nanoscale Membrane Properties. ECS Transactions, 2011, 35, 41-54.	0.3	2
221	Analysis of Aged Polymer Electrolyte Fuel Cell (PEFC) Components by Non Traditional Methods. ECS Transactions, 2011, 35, 259-269.	0.3	1
222	Spatial Distribution of Electrochemical Performance in a Segmented SOFC: AÂCombined Modeling and Experimental Study. Fuel Cells, 2010, 10, 411-418.	1.5	50
223	Oscillations of PEM fuel cells at low cathode humidification. Journal of Electroanalytical Chemistry, 2010, 649, 219-231.	1.9	45
224	Effects of open-circuit operation on membrane and catalyst layer degradation in proton exchange membrane fuel cells. Journal of Power Sources, 2010, 195, 1142-1148.	4.0	82
225	Degradation of a polymer exchange membrane fuel cell stack with NafionÂ® membranes of different thicknesses: Part I. In situ diagnosis. Journal of Power Sources, 2010, 195, 7594-7599.	4.0	99
226	AFM Investigation of PEM Fuel Cell Membranes and Gas Diffusion Layers. ECS Meeting Abstracts, 2010, , .	0.0	0
227	Analytical Investigation of Fuel Cells by Using In Situ and Ex Situ Diagnostic Methods. Materials Science Forum, 2010, 638-642, 1125-1130.	0.3	0
228	Investigation of Locally Resolved Current Density Distribution of Segmented PEM Fuel Cells to Detect Malfunctions. ECS Transactions, 2010, 26, 229-236.	0.3	11
229	Raman Spectroscopic Investigation of Plasma-Sprayed Zirconia-Based Electrolytes. , 2010, , .		0
230	Investigation of Local Degradation Effects. ECS Transactions, 2010, 26, 237-245.	0.3	2
231	Comparative Study of Plasma-Sprayed Yttria-Stabilized Zirconia Thin Films Based on Conventional and Nanostructured Powder. , 2010, , .		0
232	Atomic Force Microscopy Investigation of Polymer Fuel Cell Gas Diffusion Layers before and after Operation. ECS Transactions, 2010, 28, 79-84.	0.3	5
233	Improving the environmental impact of civil aircraft by fuel cell technology: concepts and technological progress. Energy and Environmental Science, 2010, 3, 1458.	15.6	55
234	Architecture Analysis, Modelling and Simulation of PEM Fuel Cell Systems for Aircraft Applications. ECS Transactions, 2009, 17, 285-293.	0.3	5

#	Article	IF	Citations
235	Spatially Resolved Electrochemical Performance in a Segmented Planar SOFC. ECS Transactions, 2009, 17, 79-87.	0.3	8
236	Nanoscale Investigation of Nafion Membranes after Artificial Degradation. ECS Transactions, 2009, 25, 395-403.	0.3	3
237	Development of Bifunctional Electrodes for Closed-loop Fuel Cell Applications. ECS Transactions, 2009, 25, 1325-1333.	0.3	2
238	Fuel Cell Systems for Aircraft Application. ECS Transactions, 2009, 25, 193-202.	0.3	26
239	SOFC Stacks for Mobile Applications. ECS Transactions, 2009, 25, 97-104.	0.3	3
240	Nanoscale properties of polymer fuel cell materials-A selected review. International Journal of Energy Research, 2009, 34, n/a-n/a.	2.2	10
241	Application of Electrochemical Impedance Spectroscopy for Fuel Cell Characterization: PEFC and Oxygen Reduction Reaction in Alkaline Solution. Fuel Cells, 2009, 9, 237-246.	1.5	31
242	A review of platinum-based catalyst layer degradation in proton exchange membrane fuel cells. Journal of Power Sources, 2009, 194, 588-600.	4.0	547
243	High-resolution imaging of ion conductivity of NafionÂ® membranes with electrochemical atomic force microscopy. Electrochimica Acta, 2009, 55, 423-429.	2.6	53
244	APPLICATIONS â€“ TRANSPORTATION | Auxiliary Power Units: Fuel Cells. , 2009, , 157-173.		4
245	FUEL CELLS â€“ PROTON-EXCHANGE MEMBRANE FUEL CELLS | Dynamic Operational Conditions. , 2009, , 912-930.		4
246	Spatially Resolved Measuring Technique for Solid Oxide Fuel Cells. Journal of Fuel Cell Science and Technology, 2009, 6, .	0.8	3
247	Fuel Cells for Aircraft Application. , 2009, , .		0
248	Dynamic Effects Under Gaseous Detonation and Mechanical Response of Piping Structures. , 2009, , .		0
249	In-Situ Diagnostics of PEFCs. , 2009, , .		0
250	Investigation of electrode composition of polymer fuel cells by electrochemical impedance spectroscopy. Electrochimica Acta, 2008, 53, 7475-7482.	2.6	55
251	Low Pressure Test Facility for Polymer Electrolyte Membrane Fuel Cells and First Measurements. ECS Transactions, 2008, 12, 187-197.	0.3	1
252	Investigation of Locally Resolved SOFC with Respect to Flow Configuration and Gas Composition. ECS Transactions, 2008, 12, 407-417.	0.3	0

#	Article	IF	Citations
253	Relations of Water Management and Degradation Processes in PEFC. ECS Transactions, 2008, 12, 101-111.	0.3	7
254	Modeling and Simulation of a PEM Fuel Cell System for Aircraft Applications. ECS Transactions, 2008, 12, 651-661.	0.3	3
255	Proton-Conducting Membranes for Fuel Cells. , 2008, , 759-820.		1
256	Determination of Local Conditions in PEFCs by Combining Spatially Resolved Current Density Measurements With Real-Time Modelling. , 2008, , .		0
257	Diagnostic Tools for In-situ and Ex-situ Investigations of Fuel Cells and Components at the German Aerospace Center. ECS Transactions, 2007, 5, 49-60.	0.3	4
258	Investigation of Locally Resolved SOFC Characteristics along the Flow Path. ECS Transactions, 2007, 7, 1841-1847.	0.3	9
259	X-ray Line Profile Analysis of Nanoparticles in Proton Exchange Membrane Fuel Cell Electrodes. Journal of Physical Chemistry C, 2007, 111, 9583-9591.	1.5	6
260	Electrochemical atomic force microscopy study of proton conductivity in a Nafion membrane. Physical Chemistry Chemical Physics, 2007, 9, 2735.	1.3	80
261	Proton Conductivity Study of a Fuel Cell Membrane with Nanoscale Resolution. ChemPhysChem, 2007, 8, 519-522.	1.0	46
262	Physical and electrochemical characterization of catalysts for oxygen reduction in fuel cells. Journal of Applied Electrochemistry, 2007, 37, 1463-1474.	1.5	14
263	Investigation of structure and ORR reactivity of fuel cell catalysts by in-situ STM. Journal of Applied Electrochemistry, 2007, 37, 1495-1502.	1.5	5
264	Combined electrochemical and surface analysis investigation of degradation processes in polymer electrolyte membrane fuel cells. Electrochimica Acta, 2007, 52, 2328-2336.	2.6	118
265	Assembly and Electrochemical Characterization of Nanometer-Scale Electrode | Solid Electrolyte Interfaces. Journal of Physical Chemistry B, 2006, 110, 18081-18087.	1.2	7
266	Dynamic Behavior and In-Situ Diagnostics of PEFCs. , 2006, , 1117.		0
267	Dynamic Load and Temperature Behavior of a PEFC-Hybrid-System. Journal of Fuel Cell Science and Technology, 2006, 3, 403-409.	0.8	3
268	Novel covalently cross-linked poly(etheretherketone) ionomer membranes. Journal of Power Sources, 2006, 155, 3-12.	4.0	76
269	SOFC characteristics along the flow path. Solid State Ionics, 2006, 177, 2045-2051.	1.3	36
270	Structure and Local Reactivity of Supported Catalyst/NafionÂ® Layers studied byin-situ STM. Fuel Cells, 2006, 6, 425-431.	1.5	8

#	Article	IF	Citations
271	Preparation of Direct Methanol Fuel Cells by Defined Multilayer Structures. Journal of the Electrochemical Society, 2005, 152, A545.	1.3	13
272	Performance of Methanol Oxidation Catalysts with Varying Pt:Ru Ratio as a Function of Temperature. Journal of Applied Electrochemistry, 2004, 34, 975-980.	1.5	31
273	Cross-Linked Polyaryl Blend Membranes for Polymer Electrolyte Fuel Cells. Fuel Cells, 2004, 4, 105-112.	1.5	76
274	Poisoning of PtRu/C catalysts in the anode of a direct methanol fuel cell: a DEMS study. Electrochimica Acta, 2004, 49, 3927-3936.	2.6	92
275	Performance and methanol permeation of direct methanol fuel cells: dependence on operating conditions and on electrode structure. Journal of Power Sources, 2004, 127, 172-180.	4.0	152
276	In situ study of methanol oxidation on Pt and Pt/Ru-mixed with NafionÂ® anodes in a direct methanol fuel cell by means of FTIR spectroscopy. Physical Chemistry Chemical Physics, 2004, 6, 5419-5426.	1.3	33
277	The function of ruthenium oxides in Pt-Ru catalysts for methanol electro-oxidation at low temperatures. Journal of Solid State Electrochemistry, 2003, 7, 619-625.	1.2	41
278	The adsorption of Sn on Pt(111) and its influence on CO adsorption as studied by XPS and FTIR. Electrochimica Acta, 2003, 49, 73-83.	2.6	34
279	Angle-dependent infrared absorption spectroscopy at electrode/electrolyte interfaces. Surface Science, 2003, 523, 287-297.	0.8	8
280	The Nonlinear Optical Response of Pt(111) Electrodes in Perchloric Acid Solution: Implications for the Potential of Zero Charge. Zeitschrift Fur Physikalische Chemie, 2003, 217, 527-546.	1.4	11
281	Novel method for the investigation of single nanoparticle reactivity. Faraday Discussions, 2002, 121, 365-372.	1.6	157
282	Modified NafionÂ®-based membranes for use in direct methanol fuel cells. Solid State Ionics, 2002, 150, 115-122.	1.3	219
283	Preparation of a Pt$z.sbnd;Ru/C catalyst from carbonyl complexes for fuel cell applications. Electrochimica Acta, 2002, 47, 3733-3739.	2.6	119
284	Fundamental aspects in electrocatalysis: from the reactivity of single-crystals to fuel cell electrocatalysts. Journal of Electroanalytical Chemistry, 2002, 524-525, 261-272.	1.9	116
285	Transport properties of ionomer composite membranes for direct methanol fuel cells. Journal of Electroanalytical Chemistry, 2002, 532, 75-83.	1.9	193
286	Improvement of CO tolerance of proton exchange membrane (PEM) fuel cells by a pulsing technique. Physical Chemistry Chemical Physics, 2001, 3, 320-324.	1.3	108
287	Fuel Cells - Fundamentals and Applications. Fuel Cells, 2001, 1, 5-39.	1.5	1,327
288	In-situ vibrational spectroscopy on Pt electrocatalysts. Electrochimica Acta, 2001, 47, 689-694.	2.6	30

#	Article	IF	Citations
289	Fuel Cells â€“ Fundamentals and Applications. , 2001, 1, 5.		1
290	Fuel Cells â€“ Fundamentals and Applications. , 2001, 1, 5.		7
291	Die Brennstoffzelle: eine Zukunftstechnologie. Nachrichten Aus Der Chemie, 2000, 48, 1210-1217.	0.0	0
292	Fuel Cells: Principles, Types, Fuels, and Applications. ChemPhysChem, 2000, 1, 162-193.	1.0	710
293	Size dependence of the CO monolayer oxidation on nanosized Pt particles supported on gold. Electrochimica Acta, 2000, 45, 3283-3293.	2.6	143
294	Potential-dependence of CO adlayer structures on Pt(111) electrodes in acid solution: Evidence for a site selective charge transfer. Journal of Chemical Physics, 2000, 113, 6864-6874.	1.2	79
295	Sum-Frequency Vibrational Spectroscopy of CO Adsorption on Pt(111) and Pt(110) Electrode Surfaces in Perchloric Acid Solution:â€‰ Effects of Thin-Layer Electrolytes in Spectroelectrochemistry. Journal of Physical Chemistry B, 2000, 104, 6626-6632.	1.2	71
296	Fuel Cells: Principles, Types, Fuels, and Applications. , 2000, 1, 162.		17
297	Bulk Metal Electrodeposition in the Sub-monolayer Regime: Ru on Pt(111)*. Zeitschrift Fur Physikalische Chemie, 1999, 208, 137-150.	1.4	80
298	Ethanol oxidation on PtRu electrodes studied by differential electrochemical mass spectrometry. Journal of Electroanalytical Chemistry, 1999, 472, 120-125.	1.9	243
299	Investigation of Pt particles on gold substrates by IR spectroscopy particle structure and catalytic activity. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1998, 134, 193-206.	2.3	93
300	Kinetics of electrooxidation of a CO monolayer at the platinum/electrolyte interface. Surface Science, 1998, 402-404, 182-186.	0.8	95
301	The catalytic oxidation of carbon monoxide at the platinum/electrolyte interface investigated by optical second harmonic generation (SHG): comparison of Pt(111) and Pt(997) electrode surfaces. Surface Science, 1998, 402-404, 571-575.	0.8	40
302	Model electrodes with defined mesoscopic structure. Fresenius' Journal of Analytical Chemistry, 1997, 358, 163-165.	1.5	26
303	Surface structural and chemical characterization of Pt/Ru composite electrodes: a combined study by XPS, STM and IR spectroscopy. Fresenius' Journal of Analytical Chemistry, 1997, 358, 189-192.	1.5	58
304	CO adsorption and oxidation on a Pt(111) electrode modified by ruthenium deposition: an IR spectroscopic study. Journal of Electroanalytical Chemistry, 1996, 402, 123-128.	1.9	201
305	In-situ spectroscopy of cyanide vibrations on Pt(111) and Pt(110) electrode surfaces: potential dependencies and the influence of surface disorder. Surface Science, 1995, 335, 315-325.	0.8	55
306	Sum-frequency generation at electrochemical interfaces: Cyanide vibrations on Pt(111) and Pt(110). Applied Physics A: Solids and Surfaces, 1994, 59, 553-562.	1.4	33

#	Article	IF	Citations
307	Surface second harmonic generation studies of stepped Ag (111) electrode surfaces. Chemical Physics Letters, 1993, 213, 491-497.	1.2	12
308	On the Influence of Steps on the Rotational Anisotropy of the Second Harmonic Generation from Ag Electrodes. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1993, 97, 386-394.	0.9	9
309	Comparison of Cu(111) in aqueous electrolytes and in ultrahigh vacuum: An optical second harmonic generation study. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1992, 10, 2985-2990.	0.9	11
310	A noval in situ study of adsorption processes at Au(111) electrodes by second harmonic generation. Surface Science, 1992, 269-270, 377-382.	0.8	9
311	Specific adsorption at Au(111) electrodes studied by second harmonic generation. Journal of Electroanalytical Chemistry, 1992, 329, 289-311.	1.9	60
312	Measurements of the SH response from Ag(111) at the long-wavelength limit. Chemical Physics Letters, 1992, 195, 628-632.	1.2	12
313	A study of the influence of halide adsorption on a reconstructed Au(111) electrode by second harmonic generation. Surface Science, 1991, 251-252, 587-591.	0.8	25
314	A comparative second harmonic study of Cu(111) in UHV and in solution. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1991, 309, 319-324.	0.3	21
315	In situ Raman and second harmonic generation studies. Electrochimica Acta, 1991, 36, 1829-1833.	2.6	12
316	Raman spectroscopy at metal electrodes. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1990, 280, 49-59.	0.3	30
317	Symmetry superposition studied by surface second-harmonic generation. Physical Review B, 1990, 41, 6913-6919.	1.1	48
318	An in situ study of reconstructed gold electrode surfaces by second harmonic generation. Chemical Physics Letters, 1989, 163, 123-128.	1.2	110
319	Protective Coatings for Low-Cost Bipolar Plates and Current Collectors of Proton Exchange Membrane Electrolyzers for Large Scale Energy Storage from Renewables. , 0, , .		6
320	Local Analysis of Li-ion Concentration and Diffusion-Migration Coefficients in Lithium-Silicon Electrodes. , 0, , .		0