Katerina Artyushkova

List of Publications by Year
in descending order

254 papers	14,178 citations	15466 65 h-index	24179 110 g-index
261 all docs	261 docs citations	261 times ranked	14618 citing authors

#	Article	IF	Citations
1	Synthesisâ€“structureâ€“performance correlation for polyanilineâ€“Meâ€“C non-precious metal cathode catalysts for oxygen reduction in fuel cells. Journal of Materials Chemistry, 2011, 21, 11392.	6.7	545
2	Chemistry of Multitudinous Active Sites for Oxygen Reduction Reaction in Transition Metalâ€“Nitrogenâ€“Carbon Electrocatalysts. Journal of Physical Chemistry C, 2015, 119, 25917-25928.	1.5	433
3	Multitechnique Characterization of a Polyanilineâ€“Ironâ€“Carbon Oxygen Reduction Catalyst. Journal of Physical Chemistry C, 2012, 116, 16001-16013.	1.5	378
4	Feâ€Nâ€C Oxygen Reduction Fuel Cell Catalyst Derived from Carbendazim: Synthesis, Structure, and Reactivity. Advanced Energy Materials, 2014, 4, 1301735.	10.2	350
5	Density functional theory calculations of XPS binding energy shift for nitrogen-containing graphene-like structures. Chemical Communications, 2013, 49, 2539.	2.2	347
6	Practical guide for curve fitting in x-ray photoelectron spectroscopy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	0.9	287
7	Spectroscopic insights into the nature of active sites in ironâ€“nitrogenâ€“carbon electrocatalysts for oxygen reduction in acid. Nano Energy, 2016, 29, 65-82.	8.2	269
8	CO₂ Electroreduction to Hydrocarbons on Carbon-Supported Cu Nanoparticles. ACS Catalysis, 2014, 4, 3682-3695.	5.5	267
9	Thermally Stable and Regenerable Platinumâ€“Tin Clusters for Propane Dehydrogenation Prepared by Atom Trapping on Ceria. Angewandte Chemie - International Edition, 2017, 56, 8986-8991.	7.2	262
10	Understanding catalysis in a multiphasic two-dimensional transition metal dichalcogenide. Nature Communications, 2015, 6, 8311.	5.8	260
11	Self-Supported Pd_{<i>x</i>}Bi Catalysts for the Electrooxidation of Glycerol in Alkaline Media. Journal of the American Chemical Society, 2014, 136, 3937-3945.	6.6	247
12	Reversible Control of Free Energy and Topography of Nanostructured Surfaces. Journal of the American Chemical Society, 2004, 126, 8904-8905.	6.6	215
13	Polyaniline-derived Non-Precious Catalyst for the Polymer Electrolyte Fuel Cell Cathode. ECS Transactions, 2008, 16, 159-170.	0.3	209
14	Synthesis and characterization of high performing Fe-N-C catalyst for oxygen reduction reaction (ORR) in Alkaline Exchange Membrane Fuel Cells. Journal of Power Sources, 2018, 375, 214-221.	4.0	206
15	Nano-structured non-platinum catalysts for automotive fuel cell application. Nano Energy, 2015, 16, 293-300.	8.2	190
16	Anthracene-Modified Multi-Walled Carbon Nanotubes as Direct Electron Transfer Scaffolds for Enzymatic Oxygen Reduction. ACS Catalysis, 2011, 1, 1683-1690.	5.5	175
17	Entrapment of Enzymes and Carbon Nanotubes in Biologically Synthesized Silica: Glucose Oxidaseâ€Catalyzed Direct Electron Transfer. Small, 2008, 4, 357-364.	5.2	171
18	Platinum group metal-free NiMo hydrogen oxidation catalysts: high performance and durability in alkaline exchange membrane fuel cells. Journal of Materials Chemistry A, 2017, 5, 24433-24443.	5.2	161

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19	XPS Structural Studies of Nano-composite Non-platinum Electrocatalysts for Polymer Electrolyte Fuel Cells. Topics in Catalysis, 2007, 46, 263-275.	1.3	159
20	Effect of pH on the Activity of Platinum Group Metal-Free Catalysts in Oxygen Reduction Reaction. ACS Catalysis, 2018, 8, 3041-3053.	5.5	158
21	Performance Durability of Polyaniline-derived Non-precious Cathode Catalysts. ECS Transactions, 2009, 25, 1299-1311.	0.3	150
22	Iron based catalysts from novel low-cost organic precursors for enhanced oxygen reduction reaction in neutral media microbial fuel cells. Energy and Environmental Science, 2016, 9, 2346-2353.	15.6	147
23	Binding energy shifts for nitrogenâ€containing grapheneâ€based electrocatalysts â€“ experiments and DFT calculations. Surface and Interface Analysis, 2016, 48, 293-300.	0.8	147
24	Volcano Trend in Electrocatalytic CO₂ Reduction Activity over Atomically Dispersed Metal Sites on Nitrogen-Doped Carbon. ACS Catalysis, 2019, 9, 10426-10439.	5.5	142
25	Practical guides for x-ray photoelectron spectroscopy: First steps in planning, conducting, and reporting XPS measurements. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, .	0.9	137
26	Oxygen Binding to Active Sites of Feâ€“Nâ€“C ORR Electrocatalysts Observed by Ambient-Pressure XPS. Journal of Physical Chemistry C, 2017, 121, 2836-2843.	1.5	135
27	A family of Fe-N-C oxygen reduction electrocatalysts for microbial fuel cell (MFC) application: Relationships between surface chemistry and performances. Applied Catalysis B: Environmental, 2017, 205, 24-33.	10.8	135
28	Morphological Attributes Govern Carbon Dioxide Reduction on N-Doped Carbon Electrodes. Joule, 2019, 3, 1719-1733.	11.7	132
29	Air Breathing Cathodes for Microbial Fuel Cell using Mn-, Fe-, Co- and Ni-containing Platinum Group Metal-free Catalysts. Electrochimica Acta, 2017, 231, 115-124.	2.6	131
30	Cyanamide-derived non-precious metal catalyst for oxygen reduction. Electrochemistry Communications, 2010, 12, 1792-1795.	2.3	130
31	A Hybrid DNA-Templated Gold Nanocluster For Enhanced Enzymatic Reduction of Oxygen. Journal of the American Chemical Society, 2015, 137, 11678-11687.	6.6	128
32	Core Level Shifts of Hydrogenated Pyridinic and Pyrrolic Nitrogen in the Nitrogen-Containing Graphene-Based Electrocatalysts: In-Plane vs Edge Defects. Journal of Physical Chemistry C, 2016, 120, 29225-29232.	1.5	123
33	The effects of carbon electrode surface properties on bacteria attachment and start up time of microbial fuel cells. Carbon, 2014, 67, 128-139.	5.4	122
34	Non-precious oxygen reduction catalysts prepared by high-pressure pyrolysis for low-temperature fuel cells. Applied Catalysis B: Environmental, 2009, 92, 209-216.	10.8	117
35	XPS guide: Charge neutralization and binding energy referencing for insulating samples. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	0.9	114
36	Insights on the extraordinary tolerance to alcohols of Fe-N-C cathode catalysts in highly performing direct alcohol fuel cells. Nano Energy, 2017, 34, 195-204.	8.2	113

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37	Growth of Phthalocyanine Doped and Undoped Nanotubes Using Mild Synthesis Conditions for Development of Novel Oxygen Reduction Catalysts. ACS Applied Materials & Interfaces, 2010, 2, 3295-3302.	4.0	110
38	CuCo₂O₄ORR/OER Bi-Functional Catalyst: Influence of Synthetic Approach on Performance. Journal of the Electrochemical Society, 2015, 162, F449-F454.	1.3	104
39	Feâ€“Nâ€“C Catalyst Graphitic Layer Structure and Fuel Cell Performance. ACS Energy Letters, 2017, 2, 1489-1493.	8.8	104
40	Role of Nitrogen Moieties in N-Doped 3D-Graphene Nanosheets for Oxygen Electroreduction in Acidic and Alkaline Media. ACS Applied Materials & Interfaces, 2018, 10, 11623-11632.	4.0	104
41	A mechanistic study of 4-aminoantipyrine and iron derived non-platinum group metal catalyst on the oxygen reduction reaction. Electrochimica Acta, 2013, 90, 656-665.	2.6	102
42	Parameters characterization and optimization of activated carbon (AC) cathodes for microbial fuel cell application. Bioresource Technology, 2014, 163, 54-63.	4.8	102
43	Nickelâ€“copper supported on a carbon black hydrogen oxidation catalyst integrated into an anion-exchange membrane fuel cell. Sustainable Energy and Fuels, 2018, 2, 2268-2275.	2.5	102
44	High Performance and Costâ€Effective Direct Methanol Fuel Cells: Feâ€Nâ€C Methanolâ€Tolerant Oxygen Reduction Reaction Catalysts. ChemSusChem, 2016, 9, 1986-1995.	3.6	100
45	Computational and experimental evidence for a new TMâ€“N₃/C moiety family in non-PGM electrocatalysts. Physical Chemistry Chemical Physics, 2015, 17, 17785-17789.	1.3	98
46	Misconceptions in interpretation of nitrogen chemistry from x-ray photoelectron spectra. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	0.9	96
47	Size effects on the thermal conductivity of amorphous silicon thin films. Physical Review B, 2016, 93, .	1.1	95
48	Highly active and durable templated non-PGM cathode catalysts derived from iron and aminoantipyrine. Electrochemistry Communications, 2012, 22, 53-56.	2.3	94
49	Surface Modification of Microbial Fuel Cells Anodes: Approaches to Practical Design. Electrochimica Acta, 2014, 134, 116-126.	2.6	89
50	Influence of anode surface chemistry on microbial fuel cell operation. Bioelectrochemistry, 2015, 106, 141-149.	2.4	88
51	Understanding PGM-free catalysts by linking density functional theory calculations and structural analysis: Perspectives and challenges. Current Opinion in Electrochemistry, 2018, 9, 137-144.	2.5	85
52	Predictive Modeling of Electrocatalyst Structure Based on Structure-to-Property Correlations of X-ray Photoelectron Spectroscopic and Electrochemical Measurements. Langmuir, 2008, 24, 9082-9088.	1.6	84
53	Novel highly active and selective Fe-N-C oxygen reduction electrocatalysts derived from in-situ polymerization pyrolysis. Nano Energy, 2017, 38, 201-209.	8.2	84
54	Performance, methanol tolerance and stability of Fe-aminobenzimidazole derived catalyst for direct methanol fuel cells. Journal of Power Sources, 2016, 319, 235-246.	4.0	83

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55	High catalytic activity and pollutants resistivity using Fe-AAPyr cathode catalyst for microbial fuel cell application. Scientific Reports, 2015, 5, 16596.	1.6	82
56	Elevated Concentrations of U and Co-occurring Metals in Abandoned Mine Wastes in a Northeastern Arizona Native American Community. Environmental Science & Technology, 2015, 49, 8506-8514.	4.6	82
57	Templated non-PGM cathode catalysts derived from iron and poly(ethyleneimine) precursors. Applied Catalysis B: Environmental, 2012, 127, 300-306.	10.8	81
58	Graphene-Riched Co₉S₈-N-C Non-Precious Metal Catalyst for Oxygen Reduction in Alkaline Media. ECS Transactions, 2011, 41, 1709-1717.	0.3	79
59	PGM-free Fe-N-C catalysts for oxygen reduction reaction: Catalyst layer design. Journal of Power Sources, 2016, 326, 43-49.	4.0	79
60	Selective Aerobic Oxidation of Alcohols over Atomicallyâ€Dispersed Nonâ€Precious Metal Catalysts. ChemSusChem, 2017, 10, 359-362.	3.6	79
61	Original Mechanochemical Synthesis of Non-Platinum Group Metals Oxygen Reduction Reaction Catalysts Assisted by Sacrificial Support Method. Electrochimica Acta, 2015, 179, 154-160.	2.6	78
62	Trapping of Mobile Pt Species by PdO Nanoparticles under Oxidizing Conditions. Journal of Physical Chemistry Letters, 2014, 5, 2089-2093.	2.1	77
63	Highly stable precious metal-free cathode catalyst for fuel cell application. Journal of Power Sources, 2016, 327, 557-564.	4.0	76
64	Doubleâ€Chamber Microbial Fuel Cell with a Nonâ€Platinumâ€Group Metal Feâ€“Nâ€“C Cathode Catalyst. ChemSusChem, 2015, 8, 828-834.	3.6	75
65	Effects of Cathode Corrosion on Through-Plane Water Transport in Proton Exchange Membrane Fuel Cells. Journal of the Electrochemical Society, 2013, 160, F980-F993.	1.3	69
66	Nitrogen-Doped Graphene Oxide Electrocatalysts for the Oxygen Reduction Reaction. ACS Applied Nano Materials, 2019, 2, 1675-1682.	2.4	69
67	Structure-to-property relationships in fuel cell catalyst supports: Correlation of surface chemistry and morphology with oxidation resistance of carbon blacks. Journal of Power Sources, 2012, 214, 303-313.	4.0	67
68	Design of Iron(II) Phthalocyanineâ€Derived Oxygen Reduction Electrocatalysts for Highâ€Powerâ€Density Microbial Fuel Cells. ChemSusChem, 2017, 10, 3243-3251.	3.6	67
69	Surface characterization and direct electrochemistry of redox copper centers of bilirubin oxidase from fungi Myrothecium verrucaria. Bioelectrochemistry, 2008, 74, 101-110.	2.4	63
70	Influence of platinum group metal-free catalyst synthesis on microbial fuel cell performance. Journal of Power Sources, 2018, 375, 11-20.	4.0	62
71	Mechanistic studies of oxygen reduction on Fe-PEI derived non-PGM electrocatalysts. Applied Catalysis B: Environmental, 2014, 150-151, 179-186.	10.8	61
72	Nano-structured Pd-Sn catalysts for alcohol electro-oxidation in alkaline medium. Electrochemistry Communications, 2015, 57, 48-51.	2.3	61

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73	Operando XAFS study of carbon supported Ni, NiZn, and Co catalysts for hydrazine electrooxidation for use in anion exchange membrane fuel cells. Electrochimica Acta, 2015, 163, 116-122.	2.6	61
74	Highly-active Pdâ€“Cu electrocatalysts for oxidation of ubiquitous oxygenated fuels. Applied Catalysis B: Environmental, 2016, 191, 76-85.	10.8	61
75	Nano-structured platinum group metal-free catalysts and their integration in fuel cell electrode architectures. Applied Catalysis B: Environmental, 2018, 237, 1139-1147.	10.8	61
76	Fe-carbon nitride â€œCore-shellâ€•electrocatalysts for the oxygen reduction reaction. Electrochimica Acta, 2016, 222, 1778-1791.	2.6	60
77	Direct synthesis of platinum group metal-free Fe-N-C catalyst for oxygen reduction reaction in alkaline media. Electrochemistry Communications, 2016, 72, 140-143.	2.3	60
78	Platinum group metal-free electrocatalysts: Effects of synthesis on structure and performance in proton-exchange membrane fuel cell cathodes. Journal of Power Sources, 2017, 348, 30-39.	4.0	60
79	Novel dual templating approach for preparation of highly active Fe-N-C electrocatalyst for oxygen reduction. Electrochimica Acta, 2017, 224, 49-55.	2.6	60
80	Spectroscopic Investigation of Interfacial Interaction of Manganese Oxide with Triclosan, Aniline, and Phenol. Environmental Science & Technology, 2016, 50, 10978-10987.	4.6	59
81	Highly active and selective nickel molybdenum catalysts for direct hydrazine fuel cell. Electrochimica Acta, 2016, 215, 420-426.	2.6	59
82	Proliferation of Faulty Materials Data Analysis in the Literature. Microscopy and Microanalysis, 2020, 26, 1-2.	0.2	59
83	Identification of chemical components in XPS spectra and images using multivariate statistical analysis methods. Journal of Electron Spectroscopy and Related Phenomena, 2001, 121, 33-55.	0.8	58
84	Investigating the Nature of the Active Sites for the CO₂ Reduction Reaction on Carbon-Based Electrocatalysts. ACS Catalysis, 2019, 9, 7668-7678.	5.5	58
85	Surface Modification for Enhanced Biofilm Formation and Electron Transport in Shewanella Anodes. Journal of the Electrochemical Society, 2015, 162, H597-H603.	1.3	57
86	Glycerol electrooxidation on self-supported Pd1Snx nanoparticules. Applied Catalysis B: Environmental, 2015, 176-177, 429-435.	10.8	54
87	Mechanism of Oxygen Reduction Reaction on Transition Metalâ€“Nitrogenâ€“Carbon Catalysts: Establishing the Role of Nitrogen-containing Active Sites. ACS Applied Energy Materials, 2018, 1, 5948-5953.	2.5	54
88	Cathode materials for ceramic based microbial fuel cells (MFCs). International Journal of Hydrogen Energy, 2015, 40, 14706-14715.	3.8	53
89	Quantification of PVC-PMMA polymer blend compositions by XPS in the presence of x-ray degradation effects. Surface and Interface Analysis, 2001, 31, 352-361.	0.8	51
90	Electrocatalytic Oxygen Reduction Activities of Thiol-Protected Nanomolecules Ranging in Size from Au₂₈(SR)₂₀ to Au₂₇₉(SR)₈₄. Journal of Physical Chemistry C, 2018, 122, 24809-24817.	1.5	50

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91	Thermally Stable and Regenerable Platinumâ€“Tin Clusters for Propane Dehydrogenation Prepared by Atom Trapping on Ceria. Angewandte Chemie, 2017, 129, 9114-9119.	1.6	49
92	Probing the molecular structure of antimicrobial peptide-mediated silica condensation using X-ray photoelectron spectroscopy. Journal of Materials Chemistry, 2012, 22, 9875.	6.7	48
93	Nanostructured metal-N-C electrocatalysts for CO2 reduction and hydrogen evolution reactions. Applied Catalysis B: Environmental, 2018, 232, 512-520.	10.8	48
94	Oriented Monolayers Prepared from Lyotropic Chromonic Liquid Crystal. Langmuir, 2005, 21, 2300-2307.	1.6	46
95	Borohydride-tolerant oxygen electroreduction catalyst for mixed-reactant Swiss-roll direct borohydride fuel cells. Journal of Materials Chemistry A, 2013, 1, 14384.	5.2	46
96	Chemically specific identification of carbon in XPS imaging using Multivariate Auger Feature Imaging (MAFI). Carbon, 2016, 107, 190-197.	5.4	46
97	Post Gold King Mine Spill Investigation of Metal Stability in Water and Sediments of the Animas River Watershed. Environmental Science & Technology, 2016, 50, 11539-11548.	4.6	45
98	High Performance Platinum Group Metal-Free Cathode Catalysts for Microbial Fuel Cell (MFC). Journal of the Electrochemical Society, 2017, 164, H3041-H3046.	1.3	45
99	Structure and Electrochemical Properties of Electrocatalysts for NADH Oxidation. Electroanalysis, 2010, 22, 799-806.	1.5	44
100	Nickel-based electrocatalysts for ammonia borane oxidation: enabling materials for carbon-free-fuel direct liquid alkaline fuel cell technology. Nano Energy, 2017, 37, 248-259.	8.2	44
101	Role of Surface Chemistry on Catalyst/Ionomer Interactions for Transition Metalâ€“Nitrogenâ€“Carbon Electrocatalysts. ACS Applied Energy Materials, 2018, 1, 68-77.	2.5	44
102	Correlations between Synthesis and Performance of Fe-Based PGM-Free Catalysts in Acidic and Alkaline Media: Evolution of Surface Chemistry and Morphology. ACS Applied Energy Materials, 2019, 2, 5406-5418.	2.5	44
103	Platinum Supported on NbRu_{<i>y</i>}O_{<i>z</i>} as Electrocatalyst for Ethanol Oxidation in Acid and Alkaline Fuel Cells. Journal of Physical Chemistry C, 2011, 115, 3043-3056.	1.5	43
104	Nitrogen-Doped Three-Dimensional Graphene-Supported Palladium Nanocomposites: High-Performance Cathode Catalysts for Oxygen Reduction Reactions. ACS Catalysis, 2017, 7, 6609-6618.	5.5	43
105	Relationship between surface chemistry, biofilm structure, and electron transfer in <i>Shewanella</i> anodes. Biointerphases, 2015, 10, 019013.	0.6	42
106	Experimental and Theoretical Trends of PGM-Free Electrocatalysts for the Oxygen Reduction Reaction with Different Transition Metals. Journal of the Electrochemical Society, 2019, 166, F3136-F3142.	1.3	42
107	Multivariate image analysis methods applied to XPS imaging data sets. Surface and Interface Analysis, 2002, 33, 185-195.	0.8	40
108	Design of Novel Graphene Materials as a Support for Palladium Nanoparticles: Highly Active Catalysts towards Ethanol Electrooxidation. Electrochimica Acta, 2016, 203, 144-153.	2.6	40

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109	Uranium mobility and accumulation along the Rio Paguate, Jackpile Mine in Laguna Pueblo, NM. Environmental Sciences: Processes and Impacts, 2017, 19, 605-621.	1.7	39
110	Critical role of intercalated water for electrocatalytically active nitrogen-doped graphitic systems. Science Advances, 2016, 2, e1501178.	4.7	36
111	Hierarchically Structured Non-PGM Oxygen Reduction Electrocatalyst Based on Microemulsion-Templated Silica and Pyrolyzed Iron and Cyanamide Precursors. Electrocatalysis, 2014, 5, 241-247.	1.5	35
112	Modeling of Low-Temperature Fuel Cell Electrodes Using Non-Precious Metal Catalysts. Journal of the Electrochemical Society, 2015, 162, F1253-F1261.	1.3	35
113	Introduction to topical collection: Reproducibility challenges and solutions with a focus on guides to XPS analysis. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	0.9	35
114	Mechanism Study of Hydrazine Electrooxidation Reaction on Nickel Oxide Surface in Alkaline Electrolyte by In Situ XAFS. Journal of the Electrochemical Society, 2016, 163, H951-H957.	1.3	34
115	Tolerance of non-platinum group metals cathodes proton exchange membrane fuel cells to air contaminants. Journal of Power Sources, 2016, 324, 556-571.	4.0	34
116	Nanoscale graphite-supported Pt catalysts for oxygen reduction reactions in fuel cells. Electrochimica Acta, 2011, 56, 2566-2573.	2.6	33
117	Effect of preparation method on the performance of the Ni/Al2O3 catalysts for aqueous-phase reforming of ethanol: Part II-characterization. International Journal of Hydrogen Energy, 2012, 37, 18815-18826.	3.8	33
118	Evidence of High Electrocatalytic Activity of Molybdenum Carbide Supported Platinum Nanorafts. Journal of the Electrochemical Society, 2015, 162, H681-H685.	1.3	32
119	Redox Transformations of As and Se at the Surfaces of Natural and Synthetic Ferric Nontronites: Role of Structural and Adsorbed Fe(II). Environmental Science & Technology, 2017, 51, 11105-11114.	4.6	30
120	PGM-Free ORR Catalysts Designed by Templating PANI-Type Polymers Containing Functional Groups with High Affinity to Iron. Journal of the Electrochemical Society, 2019, 166, F3240-F3245.	1.3	30
121	Synthesis of Nickelâ€Doped Ceria Catalysts for Selective Acetylene Hydrogenation. ChemCatChem, 2019, 11, 1526-1533.	1.8	30
122	Non-PGM membrane electrode assemblies: Optimization for performance. International Journal of Hydrogen Energy, 2015, 40, 14676-14682.	3.8	29
123	Selective CO 2 electroreduction to C 2 H 4 on porous Cu films synthesized by sacrificial support method. Journal of CO2 Utilization, 2017, 19, 137-145.	3.3	29
124	Oxygen Reduction Reaction Electrocatalysts Derived from Iron Salt and Benzimidazole and Aminobenzimidazole Precursors and Their Application in Microbial Fuel Cell Cathodes. ACS Applied Energy Materials, 2018, 1, 5755-5765.	2.5	29
125	Iron-streptomycin derived catalyst for efficient oxygen reduction reaction in ceramic microbial fuel cells operating with urine. Journal of Power Sources, 2019, 425, 50-59.	4.0	29
126	The effects of wastewater types on power generation and phosphorus removal of microbial fuel cells (MFCs) with activated carbon (AC) cathodes. International Journal of Hydrogen Energy, 2014, 39, 21796-21802.	3.8	28

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127	Design of experiments and principal component analysis asÂapproaches for enhancing performance of gas-diffusional air-breathing bilirubin oxidase cathode. Journal of Power Sources, 2014, 245, 389-397.	4.0	28
128	Surface-modified three-dimensional graphene nanosheets as a stationary phase for chromatographic separation of chiral drugs. Scientific Reports, 2018, 8, 14747.	1.6	28
129	Structural correlations: Design levers for performance and durability of catalyst layers. Journal of Power Sources, 2015, 284, 631-641.	4.0	27
130	Bio-inspired design of electrocatalysts for oxalate oxidation: a combined experimental and computational study of Mnâ€"Nâ€"C catalysts. Physical Chemistry Chemical Physics, 2015, 17, 13235-13244.	1.3	26
131	Highly durable direct hydrazine hydrate anion exchange membrane fuel cell. Journal of Power Sources, 2018, 375, 291-299.	4.0	26
132	Study of degradation and spatial performance of low Pt-loaded proton exchange membrane fuel cells under exposure to sulfur dioxide in an oxidant stream. Journal of Power Sources, 2020, 458, 228032.	4.0	26
133	Data fusion of XPS and AFM images for chemical phase identification in polymer blends. Surface and Interface Analysis, 2009, 41, 119-126.	0.8	25
134	Effect of bicarbonate and phosphate on arsenic release from mining-impacted sediments in the Cheyenne River watershed, South Dakota, USA. Environmental Sciences: Processes and Impacts, 2019, 21, 456-468.	1.7	25
135	Correlative Spectroscopic Imaging: XPS and FT-IR Studies of PVC/PMMA Polymer Blends. Applied Spectroscopy, 2000, 54, 1549-1558.	1.2	24
136	Application of XPS spectral subtraction and multivariate analysis for the characterization of Ar+ ion beam modified polyimide surfaces. Applied Surface Science, 2010, 256, 3204-3210.	3.1	24
137	Implementing PGM-free electrocatalysts in high-temperature polymer electrolyte membrane fuel cells. Electrochemistry Communications, 2018, 93, 91-94.	2.3	24
138	Impact of Corrosion Conditions on Carbon Paper Electrode Morphology and the Performance of a Vanadium Redox Flow Battery. Journal of the Electrochemical Society, 2019, 166, A353-A363.	1.3	24
139	Platinum group metal-free oxygen reduction electrocatalysts used in neutral electrolytes for bioelectrochemical reactor applications. Current Opinion in Electrochemistry, 2020, 23, 106-113.	2.5	24
140	Multianalytical Study of the PTFE Content Local Variation of the PEMFC Gas Diffusion Layer. Journal of the Electrochemical Society, 2013, 160, F1305-F1315.	1.3	23
141	Enhancement of Electrocatalytic Oxidation of Glycerol by Plasmonics. ChemElectroChem, 2019, 6, 241-245.	1.7	23
142	Catalysts by pyrolysis: Direct observation of transformations during re-pyrolysis of transition metal-nitrogen-carbon materials leading to state-of-the-art platinum group metal-free electrocatalyst. Materials Today, 2022, 53, 58-70.	8.3	23
143	Xâ€Ray Photoelectron Spectroscopy for Characterization of Bionanocomposite Functional Materials for Energyâ€Harvesting Technologies. ChemPhysChem, 2013, 14, 2071-2080.	1.0	22
144	Investigating phosphonate monolayer stability on ALD oxide surfaces. Applied Surface Science, 2014, 288, 98-108.	3.1	22

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145	Poisoning effects of sulfur dioxide in an air stream on spatial proton exchange membrane fuel cell performance. Journal of Power Sources, 2019, 438, 226949.	4.0	22
146	Wildfires and water chemistry: effect of metals associated with wood ash. Environmental Sciences: Processes and Impacts, 2016, 18, 1078-1089.	1.7	21
147	Application of X-ray photoelectron spectroscopy to studies of electrodes in fuel cells and electrolyzers. Journal of Electron Spectroscopy and Related Phenomena, 2019, 231, 127-139.	0.8	21
148	Versailles Project on Advanced Materials and Standards interlaboratory study on intensity calibration for x-ray photoelectron spectroscopy instruments using low-density polyethylene. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, 063208.	0.9	21
149	Direct correlation of x-ray photoelectron spectroscopy and Fourier transform infrared spectra and images from poly(vinyl chloride)/poly(methyl methacrylate) polymer blends. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2001, 19, 2791.	0.9	20
150	Mathematical topographical correction of XPS images using multivariate statistical methods. Surface and Interface Analysis, 2004, 36, 1304-1313.	0.8	20
151	Use of digital image processing of microscopic images and multivariate analysis for quantitative correlation of morphology, activity and durability of electrocatalysts. RSC Advances, 2012, 2, 4304.	1.7	20
152	Organic Functional Group Chemistry in Mineralized Deposits Containing U(IV) and U(VI) from the Jackpile Mine in New Mexico. Environmental Science & Technology, 2019, 53, 5758-5767.	4.6	20
153	Characterizing Complex Gasâ€“Solid Interfaces with in Situ Spectroscopy: Oxygen Adsorption Behavior on Feâ€“Nâ€“C Catalysts. Journal of Physical Chemistry C, 2020, 124, 16529-16543.	1.5	20
154	Chemical polymerization and electrochemical characterization of thiazines for NADH electrocatalysis applications. Electrochimica Acta, 2010, 55, 6659-6664.	2.6	19
155	Sources of Potential Lead Exposure Among Pregnant Women in New Mexico. Maternal and Child Health Journal, 2013, 17, 172-179.	0.7	19
156	Mechanistic Study of Electrooxidation of Ethanol on PtSn Nanoparticles in Alkaline and Acid Media. Journal of the Electrochemical Society, 2015, 162, H345-H351.	1.3	19
157	In Situ XAFS and HAXPES Analysis and Theoretical Study of Cobalt Polypyrrole Incorporated on Carbon (CoPPyC) Oxygen Reduction Reaction Catalysts for Anion-Exchange Membrane Fuel Cells. Journal of Physical Chemistry C, 2014, 118, 25480-25486.	1.5	18
158	Facile synthesis of high surface area molybdenum nitride and carbide. Journal of Solid State Chemistry, 2015, 228, 232-238.	1.4	18
159	Synthesis and characterization of redox-active ferric nontronite. Chemical Geology, 2017, 470, 1-12.	1.4	18
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