Matthias Arenz

List of Publications by Year
in descending order

168 papers	12,813 citations	38720 50 h-index	24232 110 g-index
208 all docs	208 docs citations	208 times ranked	10904 citing authors

#	Article	IF	Citations
1	Trends in electrocatalysis on extended and nanoscale Pt-bimetallic alloy surfaces. Nature Materials, 2007, 6, 241-247.	13.3	2,902
2	Measurement of oxygen reduction activities via the rotating disc electrode method: From Pt model surfaces to carbon-supported high surface area catalysts. Electrochimica Acta, 2008, 53, 3181-3188.	2.6	888
3	The Impact of Geometric and Surface Electronic Properties of Pt-Catalysts on the Particle Size Effect in Electrocatalysis. Journal of Physical Chemistry B, 2005, 109, 14433-14440.	1.2	613
4	The Effect of the Particle Size on the Kinetics of CO Electrooxidation on High Surface Area Pt Catalysts. Journal of the American Chemical Society, 2005, 127, 6819-6829.	6.6	514
5	The Particle Size Effect on the Oxygen Reduction Reaction Activity of Pt Catalysts: Influence of Electrolyte and Relation to Single Crystal Models. Journal of the American Chemical Society, 2011, 133, 17428-17433.	6.6	461
6	The effect of particle proximity on the oxygen reduction rate of size-selected platinum clusters. Nature Materials, 2013, 12, 919-924.	13.3	327
7	Fuel cell catalyst degradation on the nanoscale. Electrochemistry Communications, 2008, 10, 1144-1147.	2.3	309
8	Adsorbateâ€Induced Surface Segregation for Coreâ€"Shell Nanocatalysts. Angewandte Chemie - International Edition, 2009, 48, 3529-3531.	7.2	295
9	Oxygen electrocatalysis in alkaline electrolyte: Pt(hkl), Au(hkl) and the effect of Pd-modification. Electrochimica Acta, 2002, 47, 3765-3776.	2.6	209
10	The electro-oxidation of formic acid on Ptâ€"Pd single crystal bimetallic surfaces. Physical Chemistry Chemical Physics, 2003, 5, 4242-4251.	1.3	203
11	Factors in gold nanocatalysis: oxidation of CO in the non-scalable size regime. Topics in Catalysis, 2007, 44, 145-158.	1.3	190
12	Degradation of Carbon-Supported Pt Bimetallic Nanoparticles by Surface Segregation. Journal of the American Chemical Society, 2009, 131, 16348-16349.	6.6	182
13	Comparative degradation study of carbon supported proton exchange membrane fuel cell electrocatalysts â€" The influence of the platinum to carbon ratio on the degradation rate. Journal of Power Sources, 2014, 261, 14-22.	4.0	163
14	Carbon-supported Ptâ€"Sn electrocatalysts for the anodic oxidation of H2, CO, and H2/CO mixtures.Part II: The structureâ€"activity relationship. Journal of Catalysis, 2005, 232, 402-410.	3.1	156
15	CO surface electrochemistry on Pt-nanoparticles: A selective review. Electrochimica Acta, 2005, 50, 5144-5154.	2.6	154
16	Non-destructive transmission electron microscopy study of catalyst degradation under electrochemical treatment. Journal of Power Sources, 2008, 185, 734-739.	4.0	150
17	Benchmarking high surface area electrocatalysts in a gas diffusion electrode: measurement of oxygen reduction activities under realistic conditions. Energy and Environmental Science, 2018, 11, 988-994.	15.6	147
18	Anion Adsorption, CO Oxidation, and Oxygen Reduction Reaction on a Au(100) Surface:Â The pH Effect. Journal of Physical Chemistry B, 2004, 108, 625-634.	1.2	143

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19	Self-supported Ptâ€“CoO networks combining high specific activity with high surface area for oxygen reduction. Nature Materials, 2021, 20, 208-213.	13.3	139
20	Surface Chemistry on Bimetallic Alloy Surfaces:Â Adsorption of Anions and Oxidation of CO on Pt3Sn(111). Journal of the American Chemical Society, 2003, 125, 2736-2745.	6.6	127
21	IL-TEM investigations on the degradation mechanism of Pt/C electrocatalysts with different carbon supports. Energy and Environmental Science, 2011, 4, 234-238.	15.6	124
22	CO Combustion on Supported Gold Clusters. ChemPhysChem, 2006, 7, 1871-1879.	1.0	121
23	Investigating Particle Size Effects in Catalysis by Applying a Size-Controlled and Surfactant-Free Synthesis of Colloidal Nanoparticles in Alkaline Ethylene Glycol: Case Study of the Oxygen Reduction Reaction on Pt. ACS Catalysis, 2018, 8, 6627-6635.	5.5	119
24	On the Need of Improved Accelerated Degradation Protocols (ADPs): Examination of Platinum Dissolution and Carbon Corrosion in Half-Cell Tests. Journal of the Electrochemical Society, 2016, 163, F1510-F1514.	1.3	112
25	Investigation of the Oxygen Reduction Activity on Silver â€“ A Rotating Disc Electrode Study. Fuel Cells, 2010, 10, 575-581.	1.5	99
26	Identical-location TEM investigations of Pt/C electrocatalyst degradation at elevated temperatures. Journal of Electroanalytical Chemistry, 2011, 662, 355-360.	1.9	98
27	Probing Degradation by IL-TEM: The Influence of Stress Test Conditions on the Degradation Mechanism. Journal of the Electrochemical Society, 2013, 160, F608-F615.	1.3	96
28	Surface Electrochemistry of CO on Reconstructed Gold Single Crystal Surfaces Studied by Infrared Reflection Absorption Spectroscopy and Rotating Disk Electrode. Journal of the American Chemical Society, 2004, 126, 10130-10141.	6.6	93
29	Size-selected clusters as heterogeneous model catalysts under applied reaction conditions. Physical Chemistry Chemical Physics, 2010, 12, 10288.	1.3	81
30	Oxygen Reduction Reaction on Pt Overlayers Deposited onto a Gold Film: Ligand, Strain, and Ensemble Effect. ACS Catalysis, 2016, 6, 671-676.	5.5	79
31	Temperature Dependent CO Oxidation Mechanisms on Size-Selected Clusters. Journal of Physical Chemistry C, 2010, 114, 1651-1654.	1.5	76
32	CO adsorption and kinetics on well-characterized Pd films on Pt() in alkaline solutions. Surface Science, 2002, 506, 287-296.	0.8	71
33	In situ CO oxidation on well characterized Pt3Sn(hkl) surfaces: A selective review. Surface Science, 2005, 576, 145-157.	0.8	71
34	The effect of specific chloride adsorption on the electrochemical behavior of ultrathin Pd films deposited on Pt() in acid solution. Surface Science, 2003, 523, 199-209.	0.8	70
35	The Oxygen Reduction Reaction on Thin Palladium Films Supported on a Pt(111) Electrode. Journal of Physical Chemistry B, 2003, 107, 9813-9819.	1.2	70
36	The particle proximity effect: from model to high surface area fuel cell catalysts. RSC Advances, 2014, 4, 14971.	1.7	70

#	ARTICLE	IF	CITATIONS
37	Investigating the corrosion of high surface area carbons during start/stop fuel cell conditions: A Raman study. Electrochimica Acta, 2013, 114, 455-461.	2.6	65
38	Pt based PEMFC catalysts prepared from colloidal particle suspensions â€“ a toolbox for model studies. Physical Chemistry Chemical Physics, 2013, 15, 3602.	1.3	64
39	Surface Chemistry of â€œUnprotectedâ€•Nanoparticles: A Spectroscopic Investigation on Colloidal Particles. Journal of Physical Chemistry C, 2015, 119, 17655-17661.	1.5	64
40	Analysis of the Impact of Individual Glass Constituents on Electrocatalysis on Pt Electrodes in Alkaline Solution. Journal of the Electrochemical Society, 2008, 155, P78.	1.3	63
41	Log on for new catalysts. Nature Chemistry, 2009, 1, 518-519.	6.6	62
42	Fuel cell catalyst degradation: Identical location electron microscopy and related methods. Nano Energy, 2016, 29, 299-313.	8.2	62
43	Ir nanoparticles with ultrahigh dispersion as oxygen evolution reaction (OER) catalysts: synthesis and activity benchmarking. Catalysis Science and Technology, 2019, 9, 6345-6356.	2.1	61
44	Bayesian Optimization of Highâ€Entropy Alloy Compositions for Electrocatalytic Oxygen Reduction**. Angewandte Chemie - International Edition, 2021, 60, 24144-24152.	7.2	61
45	Electrochemically induced nanocluster migration. Electrochimica Acta, 2010, 56, 810-816.	2.6	59
46	Benchmarking Fuel Cell Electrocatalysts Using Gas Diffusion Electrodes: Inter-lab Comparison and Best Practices. ACS Energy Letters, 2022, 7, 816-826.	8.8	58
47	On the influence of the Pt to carbon ratio on the degradation of high surface area carbon supported PEM fuel cell electrocatalysts. Electrochemistry Communications, 2013, 34, 153-156.	2.3	57
48	Surface (electro-)chemistry on Pt(111) modified by a Pseudomorphic Pd monolayer. Surface Science, 2004, 573, 57-66.	0.8	56
49	Environment Matters: CO₂RR Electrocatalyst Performance Testing in a Gas-Fed Zero-Gap Electrolyzer. ACS Catalysis, 2020, 10, 13096-13108.	5.5	55
50	Colloids for Catalysts: A Concept for the Preparation of Superior Catalysts of Industrial Relevance. Angewandte Chemie - International Edition, 2018, 57, 12338-12341.	7.2	53
51	Enhanced Oxygen Reduction Activity by Selective Anion Adsorption on Non-Precious-Metal Catalysts. ACS Catalysis, 2018, 8, 7104-7112.	5.5	53
52	Cluster Chemistry:â€‰ Size-Dependent Reactivity Induced by Reverse Spill-Over. Journal of the American Chemical Society, 2007, 129, 9635-9639.	6.6	52
53	pH matters: The influence of the catalyst ink on the oxygen reduction activity determined in thin film rotating disk electrode measurements. Journal of Power Sources, 2017, 353, 19-27.	4.0	51
54	AuPt coreâ€“shell nanocatalysts with bulk Pt activity. Electrochemistry Communications, 2010, 12, 1487-1489.	2.3	50

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55	Comparative DEMS study on the electrochemical oxidation of carbon blacks. Journal of Power Sources, 2012, 217, 392-399.	4.0	50
56	The Gas Diffusion Electrode Setup as Straightforward Testing Device for Proton Exchange Membrane Water Electrolyzer Catalysts. Jacs Au, 2021, 1, 247-251.	3.6	50
57	Bifunctional Pt-IrO₂ Catalysts for the Oxygen Evolution and Oxygen Reduction Reactions: Alloy Nanoparticles versus Nanocomposite Catalysts. ACS Catalysis, 2021, 11, 820-828.	5.5	50
58	Sulfate adsorption on Cu(111) studied by in-situ IRRAS and STM: revealing the adsorption site and desorption behavior. Surface Science, 1999, 442, 215-222.	0.8	49
59	The Oxygen Reduction Reaction on Pt: Why Particle Size and Interparticle Distance Matter. ACS Catalysis, 2021, 11, 7144-7153.	5.5	49
60	A DEMS study on the electrochemical oxidation of a high surface area carbon black. Electrochemistry Communications, 2011, 13, 1473-1473.	2.3	48
61	Particle Size Effect on Platinum Dissolution: Practical Considerations for Fuel Cells. ACS Applied Materials & Interfaces, 2020, 12, 25718-25727.	4.0	48
62	Comparative IL-TEM Study Concerning the Degradation of Carbon Supported Pt-Based Electrocatalysts. Journal of the Electrochemical Society, 2012, 159, B677-B682.	1.3	46
63	Self-supported nanostructured iridium-based networks as highly active electrocatalysts for oxygen evolution in acidic media. Journal of Materials Chemistry A, 2020, 8, 1066-1071.	5.2	43
64	Core-shell TiO2@C: towards alternative supports as replacement for high surface area carbon for PEMFC catalysts. Electrochimica Acta, 2014, 139, 21-28.	2.6	39
65	On the structural composition and stability of Feâ€“Nâ€“C catalysts prepared by an intermediate acid leaching. Journal of Solid State Electrochemistry, 2016, 20, 969-981.	1.2	39
66	Nanoparticles in a box: a concept to isolate, store and re-use colloidal surfactant-free precious metal nanoparticles. Journal of Materials Chemistry A, 2017, 5, 6140-6145.	5.2	37
67	Gas diffusion electrode setup for catalyst testing in concentrated phosphoric acid at elevated temperatures. Review of Scientific Instruments, 2015, 86, 024102.	0.6	33
68	Single Graphene Layer on Pt(111) Creates Confined Electrochemical Environment via Selective Ion Transport. Angewandte Chemie - International Edition, 2017, 56, 12883-12887.	7.2	32
69	Enhanced Oxygen Reduction Reaction on Fe/N/C Catalyst in Acetate Buffer Electrolyte. ACS Catalysis, 2019, 9, 3082-3089.	5.5	32
70	The Dissolution Dilemma for Low Pt Loading Polymer Electrolyte Membrane Fuel Cell Catalysts. Journal of the Electrochemical Society, 2020, 167, 164501.	1.3	32
71	Synthesis of Iridium Nanocatalysts for Water Oxidation in Acid: Effect of the Surfactant. ChemCatChem, 2020, 12, 1282-1287.	1.8	31
72	UVâ€Induced Synthesis and Stabilization of Surfactantâ€Free Colloidal Pt Nanoparticles with Controlled Particle Size in Ethylene Glycol. ChemNanoMat, 2017, 3, 89-93.	1.5	30

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73	Monovalent Alkali Cations: Simple and Eco-Friendly Stabilizers for Surfactant-Free Precious Metal Nanoparticle Colloids. ACS Sustainable Chemistry and Engineering, 2019, 7, 13680-13686.	3.2	29
74	Testing fuel cell catalysts under more realistic reaction conditions: accelerated stress tests in a gas diffusion electrode setup. JPhys Energy, 2020, 2, 024003.	2.3	29
75	A New Approach to Probe the Degradation of Fuel Cell Catalysts under Realistic Conditions: Combining Tests in a Gas Diffusion Electrode Setup with Small Angle X-ray Scattering. Journal of the Electrochemical Society, 2020, 167, 134515.	1.3	29
76	Dual pulsed-beam controlled mole fraction studies of the catalytic oxidation of CO on supported Pd nanocatalysts. Journal of Catalysis, 2008, 255, 234-240.	3.1	27
77	The influence of electrochemical annealing in CO saturated solution on the catalytic activity of Pt nanoparticles. Electrochimica Acta, 2009, 54, 5018-5022.	2.6	27
78	Investigating the activity enhancement on PtxCo1âˆ'x alloys induced by a combined strain and ligand effect. Journal of Power Sources, 2014, 245, 908-914.	4.0	27
79	Controlled Synthesis of Surfactantâ€Free Waterâ€Dispersible Colloidal Platinum Nanoparticles by the Co4Cat Process. ChemSusChem, 2019, 12, 1229-1239.	3.6	27
80	Sputtered Platinum Thin-films for Oxygen Reduction in Gas Diffusion Electrodes: A Model System for Studies under Realistic Reaction Conditions. Surfaces, 2019, 2, 336-348.	1.0	27
81	Solventâ€Dependent Growth and Stabilization Mechanisms of Surfactantâ€Free Colloidal Pt Nanoparticles. Chemistry - A European Journal, 2020, 26, 9012-9023.	1.7	26
82	Stabilizing Catalytically Active Nanoparticles by Ligand Linking: Toward Three-Dimensional Networks with High Catalytic Surface Area. Langmuir, 2014, 30, 5564-5573.	1.6	25
83	Electrochemical Stability and Postmortem Studies of Pt/SiC Catalysts for Polymer Electrolyte Membrane Fuel Cells. ACS Applied Materials & Interfaces, 2015, 7, 6153-6161.	4.0	25
84	Tetrahexahedral Pt Nanoparticles: Comparing the Oxygen Reduction Reaction under Transient vs Steady-State Conditions. ACS Catalysis, 2017, 7, 1-6.	5.5	25
85	In-situ Characterization of Metal/Electrolyte Interfaces: Sulfate Adsorption on Cu(111). Physica Status Solidi A, 2001, 187, 63-74.	1.7	24
86	Preferential oxidation of carbon monoxide adsorbed on Pd submonolayer films deposited on Pt(100). Electrochemistry Communications, 2003, 5, 809-813.	2.3	24
87	From single crystal model catalysts to systematic studies of supported nanoparticles. Surface Science, 2015, 631, 278-284.	0.8	23
88	The colloidal tool-box approach for fuel cell catalysts: Systematic study of perfluorosulfonate-ionomer impregnation and Pt loading. Catalysis Today, 2016, 262, 82-89.	2.2	23
89	Beyond Active Site Design: A Surfactantâ€Free Toolbox Approach for Optimized Supported Nanoparticle Catalysts. ChemCatChem, 2021, 13, 1692-1705.	1.8	23
90	Opportunities and Knowledge Gaps of SO₂ Electrocatalytic Oxidation for H₂ Electrochemical Generation. ACS Catalysis, 2019, 9, 8136-8143.	5.5	22

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91	Bayesian Optimization of Highâ€Entropy Alloy Compositions for Electrocatalytic Oxygen Reduction**. Angewandte Chemie, 2021, 133, 24346-24354.	1.6	22
92	Equilibrium coverage of OH ad in correlation with platinum catalyzed fuel cell reactions in HClO 4. Electrochemistry Communications, 2015, 53, 41-44.	2.3	21
93	On the oxygen reduction reaction in phosphoric acid electrolyte: Evidence of significantly increased inhibition at steady state conditions. Electrochimica Acta, 2016, 204, 78-83.	2.6	21
94	Accessing the Inaccessible: Analyzing the Oxygen Reduction Reaction in the Diffusion Limit. ACS Applied Materials & Interfaces, 2017, 9, 38176-38180.	4.0	21
95	Establishing the potential dependent equilibrium oxide coverage on platinum in alkaline solution and its influence on the oxygen reduction. Journal of Power Sources, 2012, 217, 262-267.	4.0	20
96	On the Preparation and Testing of Fuel Cell Catalysts Using the Thin Film Rotating Disk Electrode Method. Journal of Visualized Experiments, 2018, , .	0.2	20
97	Teaching old precursors new tricks: Fast room temperature synthesis of surfactant-free colloidal platinum nanoparticles. Journal of Colloid and Interface Science, 2020, 577, 319-328.	5.0	20
98	Cyanide adlayers on Pt(111) in chloride containing electrolytes studied by in situ, ex situ IRAS and LEED. Surface Science, 2000, 461, 98-106.	0.8	19
99	Design and test of a flexible electrochemical setup for measurements in aqueous electrolyte solutions at elevated temperature and pressure. Review of Scientific Instruments, 2014, 85, 085105.	0.6	19
100	Inâ€…Situ FTIR Spectroscopy: Probing the Electrochemical Interface during the Oxygen Reduction Reaction on a Commercial Platinum Highâ€Surfaceâ€Area Catalyst. ChemCatChem, 2016, 8, 1125-1131.	1.8	19
101	Evaluation of temperature and electrolyte concentration dependent Oxygen solubility and diffusivity in phosphoric acid. Electrochimica Acta, 2016, 209, 399-406.	2.6	18
102	Electrochemical stability of subnanometer Pt clusters. Electrochimica Acta, 2018, 277, 211-217.	2.6	18
103	Testing a Silver Nanowire Catalyst for the Selective COâ‚‚ Reduction in a Gas Diffusion Electrode Half-cell Setup Enabling High Mass Transport Conditions. Chimia, 2019, 73, 922.	0.3	18
104	Carbon-Supported Platinum Electrocatalysts Probed in a Gas Diffusion Setup with Alkaline Environment: How Particle Size and Mesoscopic Environment Influence the Degradation Mechanism. ACS Catalysis, 2020, 10, 13040-13049.	5.5	18
105	Surfactant-free synthesis of size controlled platinum nanoparticles: Insights from in situ studies. Applied Surface Science, 2021, 549, 149263.	3.1	18
106	Halideâ€Induced Leaching of Pt Nanoparticles â€“ Manipulation of Particle Size by Controlled Ostwald Ripening. ChemNanoMat, 2019, 5, 462-471.	1.5	17
107	Electrochemical Reduction of CO₂ on Au Electrocatalysts in a Zeroâ€Gap, Halfâ€Cell Gas Diffusion Electrode Setup: a Systematic Performance Evaluation and Comparison to an Hâ€cell Setup**. ChemElectroChem, 2022, 9, .	1.7	17
108	Temperature-Induced Deposition Method for Anchoring Metallic Nanoparticles onto Reflective Substrates for in Situ Electrochemical Infrared Spectroscopy. Journal of Physical Chemistry B, 2004, 108, 17915-17920.	1.2	16

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109	On the influence of hydronium and hydroxide ion diffusion on the hydrogen and oxygen evolution reactions in aqueous media. Electrochimica Acta, 2015, 158, 13-17.	2.6	16
110	On the electrooxidation of glucose on gold: Towards an electrochemical glucaric acid production as value-added chemical. Electrochimica Acta, 2022, 410, 140023.	2.6	16
111	Chapter 1 Size effects in the chemistry of small clusters. Chemical Physics of Solid Surfaces, 2007, , 1-51.	0.3	15
112	Activity inhibition and its mitigation in high temperature proton exchange membrane fuel cells: The role of phosphoric acid, ammonium trifluoromethanesulfonate, and polyvinylidene difluoride. Journal of Power Sources, 2014, 272, 1072-1077.	4.0	15
113	Synthesis Mechanism and Influence of Light on Unprotected Platinum Nanoparticles Synthesis at Room Temperature. ChemNanoMat, 2016, 2, 104-107.	1.5	15
114	[Mo 3 S 13] 2â^' Cluster Decorated Sulfurâ€doped Reduced Graphene Oxide as Noble Metalâ€Free Catalyst for Hydrogen Evolution Reaction in Polymer Electrolyte Membrane Electrolyzers. ChemElectroChem, 2018, 5, 2672-2680.	1.7	15
115	Electrochemically Generated Copper Carbonyl for Selective Dimethyl Carbonate Synthesis. ACS Catalysis, 2019, 9, 859-866.	5.5	15
116	UV-induced syntheses of surfactant-free precious metal nanoparticles in alkaline methanol and ethanol. Nanoscale Advances, 2020, 2, 2288-2292.	2.2	15
117	Tracking the Catalyst Layer Depth-Dependent Electrochemical Degradation of a Bimodal Pt/C Fuel Cell Catalyst: A Combined <i>Operando</i> Small- and Wide-Angle X-ray Scattering Study. ACS Catalysis, 2022, 12, 2077-2085.	5.5	15
118	Structural disordering of de-alloyed Pt bimetallic nanocatalysts: the effect on oxygen reduction reaction activity and stability. Physical Chemistry Chemical Physics, 2015, 17, 28044-28053.	1.3	14
119	Surfactant-free colloidal strategies for highly dispersed and active supported IrO2 catalysts: Synthesis and performance evaluation for the oxygen evolution reaction. Journal of Catalysis, 2021, 401, 54-62.	3.1	14
120	Spatially Localized Synthesis and Structural Characterization of Platinum Nanocrystals Obtained Using UV Light. ACS Omega, 2018, 3, 10351-10356.	1.6	13
121	Kinetics, Assembling, and Conformation Control of Lâ€Cysteine Adsorption on Pt Investigated by in situ FTIR Spectroscopy and QCMâ€D. ChemPhysChem, 2018, 19, 2340-2348.	1.0	13
122	Micromechanical sensor for studying heats of surface reactions, adsorption, and cluster deposition processes. Review of Scientific Instruments, 2007, 78, 054101.	0.6	12
123	1-Naphthylamine functionalized Pt nanoparticles: electrochemical activity and redox chemistry occurring on one surface. New Journal of Chemistry, 2015, 39, 2557-2564.	1.4	12
124	On the influence of hydronium and hydroxide ion diffusion on the hydrogen and oxygen evolution reactions in aqueous media. Electrochimica Acta, 2015, 159, 66-70.	2.6	12
125	Colloids for Catalysts: A Concept for the Preparation of Superior Catalysts of Industrial Relevance. Angewandte Chemie, 2018, 130, 12518-12521.	1.6	12
126	Support-free nanostructured Pt Cu electrocatalyst for the oxygen reduction reaction prepared by alternating magnetron sputtering. Journal of Power Sources, 2019, 413, 432-440.	4.0	12

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127	Gold nanoparticles assembled with dithiocarbamate-anchored molecular wires. Scientific Reports, 2015, 5, 15273.	1.6	11
128	Influence of the Electrode and Chaotropicity of the Electrolyte on the Oscillatory Behavior of the Electrocatalytic Oxidation of SO₂. Journal of Physical Chemistry C, 2018, 122, 1243-1247.	1.5	11
129	Accelerated Durability Test for Highâ€Surfaceâ€Area Oxyhydroxide Nickel Supported on Raney Nickel as Catalyst for the Alkaline Oxygen Evolution Reaction. ChemPhysChem, 2019, 20, 3147-3153.	1.0	11
130	Examining the Structure Sensitivity of the Oxygen Evolution Reaction on Pt Singleâ€Crystal Electrodes: A Combined Experimental and Theoretical Study. ChemPhysChem, 2019, 20, 3154-3162.	1.0	11
131	Insights from <i>In Situ</i> Studies on the Early Stages of Platinum Nanoparticle Formation. Journal of Physical Chemistry Letters, 2021, 12, 3224-3231.	2.1	11
132	Elucidating Pt-Based Nanocomposite Catalysts for the Oxygen Reduction Reaction in Rotating Disk Electrode and Gas Diffusion Electrode Measurements. ACS Catalysis, 2021, 11, 7584-7594.	5.5	11
133	The polymerization of acetylene on supported metal clusters. Low Temperature Physics, 2006, 32, 1097-1103.	0.2	10
134	Design, development, and demonstration of a fully LabVIEW controlled <i>in situ</i> electrochemical Fourier transform infrared setup combined with a wall-jet electrode to investigate the electrochemical interface of nanoparticulate electrocatalysts under reaction conditions. Review of Scientific Instruments, 2013, 84, 074103.	0.6	10
135	Monodispersed cluster-assembled materials. Materials Today, 2006, 9, 48-49.	8.3	9
136	Comparative study of cytotoxicity by platinum nanoparticles and ions in vitro systems based on fish cell lines. Toxicology in Vitro, 2020, 66, 104859.	1.1	9
137	Structural Changes of Au(111) Singleâ€Crystal Electrode Surface in Ionic Liquids. ChemElectroChem, 2020, 7, 501-508.	1.7	8
138	Influence of Anion Chaotropicity on the SO₂ Oxidation Reaction: When Spectator Species Determine the Reaction Pathway. ChemElectroChem, 2020, 7, 1843-1850.	1.7	8
139	Commercial Spirits for Surfactant-Free Syntheses of Electro-Active Platinum Nanoparticles. Sustainable Chemistry, 2021, 2, 1-7.	2.2	8
140	PtxCo1â^'x alloy NPs prepared by colloidal tool-box synthesis: The effect of de-alloying on the oxygen reduction reaction activity. International Journal of Hydrogen Energy, 2014, 39, 9143-9148.	3.8	7
141	Size effect studies in catalysis: a simple surfactant-free synthesis of sub 3Ânm Pd nanocatalysts supported on carbon. RSC Advances, 2018, 8, 33794-33797.	1.7	7
142	Mechanism of Electrochemical Lâ€Cysteine Oxidation on Pt. ChemElectroChem, 2019, 6, 1009-1013.	1.7	7
143	Surfactant-free Ir nanoparticles synthesized in ethanol: Catalysts for the oxygen evolution reaction. Materials Letters, 2022, 308, 131209.	1.3	7
144	Catalyst design criteria and fundamental limitations in the electrochemical synthesis of dimethyl carbonate. Green Chemistry, 2019, 21, 6200-6209.	4.6	6

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145	Operando SAXS study of a Pt/C fuel cell catalyst with an X-ray laboratory source. Journal Physics D: Applied Physics, 2021, 54, 294004.	1.3	6
146	Anion Dependent Particle Size Control of Platinum Nanoparticles Synthesized in Ethylene Glycol. Nanomaterials, 2021, 11, 2092.	1.9	6
147	The gas diffusion electrode setup as a testing platform for evaluating fuel cell catalysts: A comparative RDEâ€GDE study. Electrochemical Science Advances, 2023, 3, .	1.2	6
148	Catalyst Development for Water/CO2 Co-electrolysis. Chimia, 2019, 73, 707.	0.3	5
149	On the electro-oxidation of small organic molecules: Towards a fuel cell catalyst testing platform based on gas diffusion electrode setups. Journal of Power Sources, 2022, 522, 230979.	4.0	5
150	Influence of the Electrolyte on the Particle Size Effect of the Oxygen Reduction Reaction on Pt Nanoparticles. ECS Transactions, 2009, 25, 455-462.	0.3	4
151	(Invited) The Toolbox Concept for the Synthesis of Surfactant-Free Colloidal Nanoparticles as Electrocatalysts. ECS Transactions, 2020, 97, 443-455.	0.3	4
152	The colloidal tool-box approach for fuel cell catalysts: utilizing graphitized carbon supports. Electrochimica Acta, 2016, 197, 221-227.	2.6	3
153	Oxygen Reduction Reaction on Polycrystalline Platinum: On the Activity Enhancing Effect of Polyvinylidene Difluoride. Surfaces, 2019, 2, 69-77.	1.0	3
154	Electrochemical Synthesis of High-Value Chemicals: Detection of Key Reaction Intermediates and Products Combining Gas Chromatographyâ€“Mass Spectrometry and <i>in Situ</i> Infrared Spectroscopy. Journal of Physical Chemistry C, 2019, 123, 12762-12772.	1.5	3
155	On the facile and accurate determination of the Pt content in standard carbon supported Pt fuel cell catalysts. Analytica Chimica Acta, 2020, 1101, 41-49.	2.6	3
156	L-cysteine oxidation on Pt and Au rotating disk electrodes: Insights on mixed controlled kinetics. Journal of Electroanalytical Chemistry, 2021, 880, 114920.	1.9	3
157	Comparative Study of the Degradation of Different Carbon Supported Pt Fuel Cell Catalysts. ECS Transactions, 2011, 41, 811-816.	0.3	2
158	NanoElectrocatalysis: From Basic Research to Applications in Energy Conversion. Chimia, 2018, 72, 276-285.	0.3	2
159	Stability of Pt Alloy High Surface Area Catalysts. ECS Transactions, 2009, 25, 555-563.	0.3	1
160	Design and Application of External Reference Electrode for Kinetic Studies at Elevated Temperatures and Pressures. Journal of the Electrochemical Society, 2017, 164, F821-F824.	1.3	1
161	Single Graphene Layer on Pt(111) Creates Confined Electrochemical Environment via Selective Ion Transport. Angewandte Chemie, 2017, 129, 13063-13067.	1.6	1
162	Particle Size Effect Vs. Particle Proximity Effect: Systematic Study on ORR Activity of High Surface Area Pt/C Catalysts for Polymer Electrolyte Membrane Fuel Cells. ECS Meeting Abstracts, 2018, , .	0.0	0

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163	PEMFC Catalyst Testing: From RDE to GDE Setup. ECS Meeting Abstracts, 2019, , .	0.0	0
164	The Interparticle Distance Effect on Transient Platinum Dissolution: Degradation at High and Low Loadings. ECS Meeting Abstracts, 2019, , .	0.0	0
165	(Invited) The Tool-Box Concept for the Synthesis of Surfactant-Free Colloidal Nanoparticles As Electrocatalysts. ECS Meeting Abstracts, 2020, MA2020-01, 1140-1140.	0.0	0
166	Electrochemical Reduction of CO2 on Au Electrocatalysts Under Commercially Relevant Condition. ECS Meeting Abstracts, 2021, MA2021-02, 1727-1727.	0.0	0
167	(Digital Presentation) Small Angle X-Ray Scattering Studies Investigating the Degradation of Electrocatalysts. ECS Meeting Abstracts, 2022, MA2022-01, 1169-1169.	0.0	0
168	(Digital Presentation) Improved Nanocatalysts, Supported IrO_x and IrRuO_x, for Enhanced Oxygen Evolution Reaction. ECS Meeting Abstracts, 2022, MA2022-01, 2327-2327.	0.0	0