Jonathan Quinson

List of Publications by Year
in descending order

69 papers	1,536 citations	279487 23 h-index	344852 36 g-index
87 all docs	87 docs citations	87 times ranked	1435 citing authors

#	Article	IF	Citations
1	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
2	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
3	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
4	From platinum atoms in molecules to colloidal nanoparticles: A review on reduction, nucleation and growth mechanisms. Advances in Colloid and Interface Science, 2020, 286, 102300.	7.0	57
5	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
6	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
7	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
8	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
9	The Oxygen Reduction Reaction on Pt: Why Particle Size and Interparticle Distance Matter. ACS Catalysis, 2021, 11, 7144-7153.	5.5	49
10	H₂-Driven biocatalytic hydrogenation in continuous flow using enzyme-modified carbon nanotube columns. Chemical Communications, 2017, 53, 9839-9841.	2.2	48
11	Particle Size Effect on Platinum Dissolution: Practical Considerations for Fuel Cells. ACS Applied Materials & Interfaces, 2020, 12, 25718-25727.	4.0	48
12	Electrolyte Effects on the Electrocatalytic Performance of Iridiumâ€Based Nanoparticles for Oxygen Evolution in Rotating Disc Electrodes. ChemPhysChem, 2019, 20, 2956-2963.	1.0	44
13	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
14	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
15	The Dissolution Dilemma for Low Pt Loading Polymer Electrolyte Membrane Fuel Cell Catalysts. Journal of the Electrochemical Society, 2020, 167, 164501.	1.3	32
16	Synthesis of Iridium Nanocatalysts for Water Oxidation in Acid: Effect of the Surfactant. ChemCatChem, 2020, 12, 1282-1287.	1.8	31
17	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
18	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

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19	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
20	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
21	Comparison of carbon materials as electrodes for enzyme electrocatalysis: hydrogenase as a case study. Faraday Discussions, 2014, 172, 473-496.	1.6	28
22	Controlled Synthesis of Surfactantâ€Free Waterâ€Dispersible Colloidal Platinum Nanoparticles by the Co4Cat Process. ChemSusChem, 2019, 12, 1229-1239.	3.6	27
23	Solventâ€Dependent Growth and Stabilization Mechanisms of Surfactantâ€Free Colloidal Pt Nanoparticles. Chemistry - A European Journal, 2020, 26, 9012-9023.	1.7	26
24	Green and facile approach for enhancing the inherent magnetic properties of carbon nanotubes for water treatment applications. PLoS ONE, 2017, 12, e0180636.	1.1	24
25	Beyond Active Site Design: A Surfactantâ€Free Toolbox Approach for Optimized Supported Nanoparticle Catalysts. ChemCatChem, 2021, 13, 1692-1705.	1.8	23
26	Iridium and IrOx nanoparticles: an overview and review of syntheses and applications. Advances in Colloid and Interface Science, 2022, 303, 102643.	7.0	21
27	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
28	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
29	Synchrotron-Based Infrared Microanalysis of Biological Redox Processes under Electrochemical Control. Analytical Chemistry, 2016, 88, 6666-6671.	3.2	19
30	Electrochemical stability of subnanometer Pt clusters. Electrochimica Acta, 2018, 277, 211-217.	2.6	18
31	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
32	Surfactant-free synthesis of size controlled platinum nanoparticles: Insights from in situ studies. Applied Surface Science, 2021, 549, 149263.	3.1	18
33	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
34	UV-induced syntheses of surfactant-free precious metal nanoparticles in alkaline methanol and ethanol. Nanoscale Advances, 2020, 2, 2288-2292.	2.2	15
35	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
36	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

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37	Surfactant-Free Precious Metal Colloidal Nanoparticles for Catalysis. Frontiers in Nanotechnology, 2021, 3, .	2.4	14
38	Spatially Localized Synthesis and Structural Characterization of Platinum Nanocrystals Obtained Using UV Light. ACS Omega, 2018, 3, 10351-10356.	1.6	13
39	Colloids for Catalysts: A Concept for the Preparation of Superior Catalysts of Industrial Relevance. Angewandte Chemie, 2018, 130, 12518-12521.	1.6	12
40	Immobilization of Magnetic Nanoparticles onto Conductive Surfaces Modified by Diazonium Chemistry. Langmuir, 2012, 28, 12671-12680.	1.6	11
41	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
42	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
43	Colloidal surfactant-free syntheses of precious metal nanoparticles for electrocatalysis. Current Opinion in Electrochemistry, 2022, 34, 100977.	2.5	10
44	Toward Overcoming the Challenges in the Comparison of Different Pd Nanocatalysts: Case Study of the Ethanol Oxidation Reaction. Inorganics, 2020, 8, 59.	1.2	8
45	Commercial Spirits for Surfactant-Free Syntheses of Electro-Active Platinum Nanoparticles. Sustainable Chemistry, 2021, 2, 1-7.	2.2	8
46	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
47	Surfactant-free Ir nanoparticles synthesized in ethanol: Catalysts for the oxygen evolution reaction. Materials Letters, 2022, 308, 131209.	1.3	7
48	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
49	Anion Dependent Particle Size Control of Platinum Nanoparticles Synthesized in Ethylene Glycol. Nanomaterials, 2021, 11, 2092.	1.9	6
50	Simple Setup Miniaturization with Multiple Benefits for Green Chemistry in Nanoparticle Synthesis. ACS Omega, 2022, 7, 4714-4721.	1.6	6
51	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
52	The challenges of characterising nanoparticulate catalysts: general discussion. Faraday Discussions, 2018, 208, 339-394.	1.6	5
53	Catalyst Development for Water/CO2 Co-electrolysis. Chimia, 2019, 73, 707.	0.3	5
54	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

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55	Surfactant-free syntheses and pair distribution function analysis of osmium nanoparticles. Beilstein Journal of Nanotechnology, 2022, 13, 230-235.	1.5	5
56	Breaking with the Principles of Coreduction to Form Stoichiometric Intermetallic PdCu Nanoparticles. Small Methods, 2022, 6, e2200420.	4.6	5
57	(Invited) The Toolbox Concept for the Synthesis of Surfactant-Free Colloidal Nanoparticles as Electrocatalysts. ECS Transactions, 2020, 97, 443-455.	0.3	4
58	Control of catalytic nanoparticle synthesis: general discussion. Faraday Discussions, 2018, 208, 471-495.	1.6	3
59	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
60	Degradation of Metal Clusters and Nanoparticles Under Electrochemical Control. , 2018, , 434-441.		2
61	Janus Structured Multiwalled Carbon Nanotube Forests for Simple Asymmetric Surface Functionalization and Patterning at the Nanoscale. ACS Applied Nano Materials, 2020, 3, 7554-7562.	2.4	2
62	Carbon nanotube columns for flow systems: influence of synthesis parameters. Nanoscale Advances, 2020, 2, 5874-5882.	2.2	2
63	Carbon electrode interfaces for synthesis, sensing and electrocatalysis: general discussion. Faraday Discussions, 2014, 172, 497-520.	1.6	1
64	Application of new nanoparticle structures as catalysts: general discussion. Faraday Discussions, 2018, 208, 575-593.	1.6	1
65	Surfactant-Free Preparation of Ir Based Oer Catalysts in Low Boiling Point Solvents and Their Catalytic Evaluation. ECS Meeting Abstracts, 2018, , .	0.0	0
66	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
67	(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
68	Towards 3D self-assembled rolled multiwall carbon nanotube structures by spontaneous peel off. Beilstein Journal of Nanotechnology, 2020, 11, 1865-1872.	1.5	0
69	Osmium and OsOx nanoparticles: an overview of syntheses and applications. Open Research Europe, 0, 2, 39.	2.0	0