Tristan Asset

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/5713973/publications.pdf

Version: 2024-02-01

71 papers	2,504 citations	218592 26 h-index	197736 49 g-index
73 all docs	73 docs citations	73 times ranked	3450 citing authors

#	Article	IF	Citations
1	Surface distortion as a unifying concept and descriptor in oxygen reduction reaction electrocatalysis. Nature Materials, 2018, 17, 827-833.	13.3	344
2	Iron-Nitrogen-Carbon Catalysts for Proton Exchange Membrane Fuel Cells. Joule, 2020, 4, 33-44.	11.7	264
3	Beyond Strain and Ligand Effects: Microstrain-Induced Enhancement of the Oxygen Reduction Reaction Kinetics on Various PtNi/C Nanostructures. ACS Catalysis, 2017, 7, 398-408.	5.5	140
4	Morphological Attributes Govern Carbon Dioxide Reduction on N-Doped Carbon Electrodes. Joule, 2019, 3, 1719-1733.	11.7	132
5	Tuning the Performance and the Stability of Porous Hollow PtNi/C Nanostructures for the Oxygen Reduction Reaction. ACS Catalysis, 2015, 5, 5333-5341.	5.5	125
6	Defects do Catalysis: CO Monolayer Oxidation and Oxygen Reduction Reaction on Hollow PtNi/C Nanoparticles. ACS Catalysis, 2016, 6, 4673-4684.	5.5	107
7	Aluminum-air batteries: A review of alloys, electrolytes and design. Journal of Power Sources, 2021, 498, 229762.	4.0	74
8	Porous Hollow PtNi/C Electrocatalysts: Carbon Support Considerations To Meet Performance and Stability Requirements. ACS Catalysis, 2018, 8, 893-903.	5.5	67
9	A Review on Recent Developments and Prospects for the Oxygen Reduction Reaction on Hollow Ptâ€alloy Nanoparticles. ChemPhysChem, 2018, 19, 1552-1567.	1.0	64
10	Highly-active Pdâ€“Cu electrocatalysts for oxidation of ubiquitous oxygenated fuels. Applied Catalysis B: Environmental, 2016, 191, 76-85.	10.8	61
11	Implementing Structural Disorder as a Promising Direction for Improving the Stability of PtNi/C Nanoparticles. ACS Catalysis, 2017, 7, 3072-3081.	5.5	61
12	Cathode Catalysts Based on Cobalt- and Nitrogen-Doped Nanocarbon Composites for Anion Exchange Membrane Fuel Cells. ACS Applied Energy Materials, 2020, 3, 5375-5384.	2.5	61
13	Highly active and selective nickel molybdenum catalysts for direct hydrazine fuel cell. Electrochimica Acta, 2016, 215, 420-426.	2.6	59
14	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
15	Transition Metal Chalcogenides as a Versatile and Tunable Platform for Catalytic CO₂ and N₂ Electroreduction. ACS Materials Au, 2021, 1, 6-36.	2.6	55
16	Feâ€“Nâ€“C Electrocatalystsâ€™ Durability: Effects of Single Atomsâ€™ Mobility and Clustering. ACS Catalysis, 2021, 11, 484-494.	5.5	53
17	Integrating nanostructured Pt-based electrocatalysts in proton exchange membrane fuel cells. Journal of Power Sources, 2020, 478, 228516.	4.0	44
18	Palladium Supported on 3D Graphene as an Active Catalyst for Alcohols Electrooxidation. Journal of the Electrochemical Society, 2015, 162, F1305-F1309.	1.3	41

#	Article	IF	Citations
19	Atomic-Scale Snapshots of the Formation and Growth of Hollow PtNi/C Nanocatalysts. Nano Letters, 2017, 17, 2447-2453.	4.5	40
20	Metal Oxide Clusters on Nitrogen-Doped Carbon are Highly Selective for CO₂ Electroreduction to CO. ACS Catalysis, 2021, 11, 10028-10042.	5.5	37
21	Metalâ€“Nitrogenâ€“Carbon Electrocatalysts for CO₂ Reduction towards Syngas Generation. ChemSusChem, 2020, 13, 1688-1698.	3.6	36
22	Understanding the Role of Interfaces for Water Management in Platinum Group Metal-Free Electrodes in Polymer Electrolyte Fuel Cells. ACS Applied Energy Materials, 2019, 2, 3542-3553.	2.5	31
23	Catalytic Hybrid Electrocatalytic/Biocatalytic Cascades for Carbon Dioxide Reduction and Valorization. ACS Catalysis, 2021, 11, 5172-5188.	5.5	31
24	Catalysts by pyrolysis: Direct observation of chemical and morphological transformations leading to transition metal-nitrogen-carbon materials. Materials Today, 2021, 47, 53-68.	8.3	30
25	Impact of catalyst layer morphology on the operation of high temperature PEM fuel cells. Journal of Power Sources Advances, 2021, 7, 100042.	2.6	29
26	Influence of the Temperature for the Ethanol Oxidation Reaction (EOR) on Pt/C, Ptâ€Rh/C and Ptâ€Rhâ€SnO₂/C. Fuel Cells, 2015, 15, 352-360.	1.5	28
27	Activity and Durability of Platinum-Based Electrocatalysts Supported on Bare or Fluorinated Nanostructured Carbon Substrates. Journal of the Electrochemical Society, 2018, 165, F3346-F3358.	1.3	27
28	Electrooxidation of Ethanol at Room Temperature on Carbon-Supported Pt and Rh-Containing Catalysts: A DEMS Study. Journal of the Electrochemical Society, 2014, 161, F918-F924.	1.3	26
29	Imaging Heterogeneous Electrocatalyst Stability and Decoupling Degradation Mechanisms in Operating Hydrogen Fuel Cells. ACS Energy Letters, 2021, 6, 2742-2749.	8.8	26
30	Implementing PGM-free electrocatalysts in high-temperature polymer electrolyte membrane fuel cells. Electrochemistry Communications, 2018, 93, 91-94.	2.3	24
31	Effect of Atomic Vacancies on the Structure and the Electrocatalytic Activity of Ptâ€rich/C Nanoparticles: A Combined Experimental and Density Functional Theory Study. ChemCatChem, 2017, 9, 2324-2338.	1.8	23
32	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
33	Disentangling the Degradation Pathways of Highly Defective PtNi/C Nanostructures â€“ An Operando Wide and Small Angle X-ray Scattering Study. ACS Catalysis, 2019, 9, 160-167.	5.5	22
34	Design of Pd-Pb Catalysts for Glycerol and Ethylene Glycol Electrooxidation in Alkaline Medium. Electrocatalysis, 2018, 9, 480-485.	1.5	20
35	Elucidating the Mechanisms Driving the Aging of Porous Hollow PtNi/C Nanoparticles by Means of CO_{ads} Stripping. ACS Applied Materials & Interfaces, 2017, 9, 25298-25307.	4.0	19
36	Kinetic Isotope Effect as a Tool To Investigate the Oxygen Reduction Reaction on Ptâ€based Electrocatalysts â€“ Part I: Highâ€loading Pt/C and Pt Extended Surface. ChemPhysChem, 2020, 21, 469-475.	1.0	19

#	Article	IF	Citations
37	Inhibition of Surface Chemical Moieties by Tris(hydroxymethyl)aminomethane: A Key to Understanding Oxygen Reduction on Ironâ€“Nitrogenâ€“Carbon Catalysts. ACS Applied Energy Materials, 2018, 1, 1942-1949.	2.5	18
38	Steering Cu-Based CO₂RR Electrocatalystsâ€™ Selectivity: Effect of Hydroxyapatite Acid/Base Moieties in Promoting Formate Production. ACS Energy Letters, 2022, 7, 2304-2310.	8.8	17
39	Structureâ€“Activity Relationships for the Oxygen Reduction Reaction in Porous Hollow PtNi/C Nanoparticles. ChemElectroChem, 2016, 3, 1591-1600.	1.7	16
40	Utilization of graphitized and fluorinated carbon as platinum nanoparticles supports for application in proton exchange membrane fuel cell cathodes. Journal of Power Sources, 2018, 404, 28-38.	4.0	16
41	Impact of ionomer structuration on the performance of bio-inspired noble-metal-free fuel cell anodes. Chem Catalysis, 2021, 1, 88-105.	2.9	14
42	Mitigation of Carbon Crossover in CO₂ Electrolysis by Use of Bipolar Membranes. Journal of the Electrochemical Society, 2022, 169, 034508.	1.3	14
43	Engineering catalytic dephosphorylation reaction for endotoxin inactivation. Nano Today, 2022, 44, 101456.	6.2	14
44	Tin dioxide coated carbon materials as an alternative catalyst support for PEMFCs: Impacts of the intrinsic carbon properties and the synthesis parameters on the coating characteristics. Microporous and Mesoporous Materials, 2018, 271, 1-15.	2.2	13
45	Activity and Durability of Platinum-Based Electrocatalysts with Tin Oxideâ€“Coated Carbon Aerogel Materials as Catalyst Supports. Electrocatalysis, 2019, 10, 156-172.	1.5	12
46	Kinetic Isotopic Effect Studies of Ironâ€“Nitrogenâ€“Carbon Electrocatalysts for Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2019, 123, 11476-11483.	1.5	12
47	Facile All-Optical Method for In Situ Detection of Low Amounts of Ammonia. IScience, 2020, 23, 101757.	1.9	12
48	Ni(OH)2-free NiCu as a hydrogen evolution and oxidation electrocatalyst. Electrochemistry Communications, 2021, 125, 106999.	2.3	9
49	Fabrication of platinum group metal-free catalyst layer with enhanced mass transport characteristics via an electrospraying technique. Materials Today Energy, 2021, 20, 100641.	2.5	9
50	Small-angle scattering by supported nanoparticles: exact results and useful approximations. Journal of Applied Crystallography, 2019, 52, 507-519.	1.9	7
51	Graphene-based catalyst for CO2 reduction: The critical role of solvents in materials design. Journal of Catalysis, 2021, 404, 512-517.	3.1	6
52	Kinetic Isotope Effect as a Tool To Investigate the Oxygen Reduction Reaction on Ptâ€based Electrocatalysts â€“ Part II: Effect of Platinum Dispersion. ChemPhysChem, 2020, 21, 1331-1339.	1.0	4
53	(Invited) Porous Hollow PtNi/C Nanoparticles and Their Many Facets. ECS Transactions, 2017, 80, 731-741.	0.3	2
54	Kinetic Isotope Effect as a Tool To Investigate the Oxygen Reduction Reaction on Ptâ€based Electrocatalysts â€“ Part I: Highâ€loading Pt/C and Pt Extended Surface. ChemPhysChem, 2020, 21, 468-468.	1.0	2

#	Article	IF	Citations
55	Pyrolysis of Metal Organic Frameworks (MOF): Transformations Leading to Formation of Transition Metal-Nitrogen-Carbon Catalysts. ECS Meeting Abstracts, 2021, MA2021-01, 476-476.	0.0	2
56	Understanding Pyrolysis: Operandoand in Situcharacterization of Morphology and Composition Changes during Synthesis of M-N-C Electrocatalysts. ECS Meeting Abstracts, 2020, MA2020-02, 2156-2156.	0.0	1
57	Platinum Nanoflowers: A New Class of Nanostructured Electrocatalysts for the Oxygen Reduction Reaction. ECS Meeting Abstracts, 2021, MA2021-02, 1278-1278.	0.0	1
58	Pentavalent Metal Doped TiO2 As Corrosion-Resistant Electrocatalyst Supports in Polymer Electrolyte Membrane Fuel Cells. ECS Meeting Abstracts, 2019, , .	0.0	0
59	Understanding Pyrolysis of PGM-Free Electrocatalysts with X-Ray Computed Tomography. ECS Meeting Abstracts, 2019, , .	0.0	0
60	In Situ Characterization of Fe-N-C Electrocatalysts Synthesis By XPS and XRD. ECS Meeting Abstracts, 2019, , .	0.0	0
61	Kinetic Isotope Effect of the Oxygen Reduction Reaction on Carbon-Supported Platinum Electrocatalysts. ECS Meeting Abstracts, 2019, , .	0.0	0
62	Insights Onto the Active Sites and Reactivity of Metal-Doped Carbonaceous Electrocatalysts for the CO2 Reduction Reaction. ECS Meeting Abstracts, 2019, , .	0.0	0
63	Role of Protons on Activity and Selectivity of Fe-N-C Electroctatalysts for Oxygen Reduction Reaction. ECS Meeting Abstracts, 2019, , .	0.0	0
64	Iron-Nitrogen-Carbon (Fe-N-C) Active Sites Imaging By Scanning Transmission Electron Microscopy (STEM). ECS Meeting Abstracts, 2019, , .	0.0	0
65	Advanced Nanostructures for Proton Exchange Membrane Fuel Cells: From Liquid Electrolyte to Membrane Electrode Assembly. ECS Meeting Abstracts, 2020, MA2020-01, 1613-1613.	0.0	0
66	Robust Palladium Hydride (PdH/C) Catalyst for Electrocatalytic Formate Formation with Limited of CO Poisoning. ECS Meeting Abstracts, 2021, MA2021-02, 822-822.	0.0	0
67	CO2 Electroreduction on Mono- and Bi-Metallic M-N-C Catalysts. ECS Meeting Abstracts, 2021, MA2021-02, 831-831.	0.0	0
68	Hybrid Copper Macrocycle/Nickel-Nitrogen Doped Graphite for Aqueous Electrochemical Carbon Dioxide Reduction. ECS Meeting Abstracts, 2020, MA2020-02, 3223-3223.	0.0	0
69	Electrocatalysts Based on Cobalt- and Nitrogen-Doped Nanocarbon Composites for Oxygen Reduction Reaction and Anion Exchange Membrane Fuel Cells. ECS Meeting Abstracts, 2020, MA2020-02, 2396-2396.	0.0	0
70	(Keynote) Mechanistic Understanding of the Activity of Atomically Dispersed Transition Metal-Nitrogen-Carbon Catalysts in Oxygen, Carbon Dioxide or Nitrogen Electro-Reduction. ECS Meeting Abstracts, 2022, MA2022-01, 2077-2077.	0.0	0
71	Unravelling the Influence of Oxygen on the Degradation Mechanisms of Fe-N-C Oxygen Reduction Reaction Catalysts. ECS Meeting Abstracts, 2022, MA2022-01, 2070-2070.	0.0	0