# Tristan Asset

List of Publications by Year
in descending order

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

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|---|---|---|---|
| 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 | 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 |
| 2 | Mitigation of Carbon Crossover in CO<sub>2</sub> Electrolysis by Use of Bipolar Membranes. Journal of the Electrochemical Society, 2022, 169, 034508. | 1.3 | 14 |
| 3 | Engineering catalytic dephosphorylation reaction for endotoxin inactivation. Nano Today, 2022, 44, 101456. | 6.2 | 14 |
| 4 | Steering Cu-Based CO<sub>2</sub>RR Electrocatalystsâ€™ Selectivity: Effect of Hydroxyapatite Acid/Base Moieties in Promoting Formate Production. ACS Energy Letters, 2022, 7, 2304-2310. | 8.8 | 17 |
| 5 | (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 |
| 6 | 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 |
| 7 | Feâ€“Nâ€“C Electrocatalystsâ€™ Durability: Effects of Single Atomsâ€™ Mobility and Clustering. ACS Catalysis, 2021, 11, 484-494. | 5.5 | 53 |
| 8 | 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 |
| 9 | Ni(OH)2-free NiCu as a hydrogen evolution and oxidation electrocatalyst. Electrochemistry Communications, 2021, 125, 106999. | 2.3 | 9 |
| 10 | Catalytic Hybrid Electrocatalytic/Biocatalytic Cascades for Carbon Dioxide Reduction and Valorization. ACS Catalysis, 2021, 11, 5172-5188. | 5.5 | 31 |
| 11 | Transition Metal Chalcogenides as a Versatile and Tunable Platform for Catalytic CO<sub>2</sub> and N<sub>2</sub> Electroreduction. ACS Materials Au, 2021, 1, 6-36. | 2.6 | 55 |
| 12 | 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 |
| 13 | 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 |
| 14 | Aluminum-air batteries: A review of alloys, electrolytes and design. Journal of Power Sources, 2021, 498, 229762. | 4.0 | 74 |
| 15 | 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 |
| 16 | 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 |
| 17 | Metal Oxide Clusters on Nitrogen-Doped Carbon are Highly Selective for CO<sub>2</sub> Electroreduction to CO. ACS Catalysis, 2021, 11, 10028-10042. | 5.5 | 37 |
| 18 | Imaging Heterogeneous Electrocatalyst Stability and Decoupling Degradation Mechanisms in Operating Hydrogen Fuel Cells. ACS Energy Letters, 2021, 6, 2742-2749. | 8.8 | 26 |

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|---|---|---|---|
| 19 | Graphene-based catalyst for CO2 reduction: The critical role of solvents in materials design. Journal of Catalysis, 2021, 404, 512-517. | 3.1 | 6 |
| 20 | 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 |
| 21 | CO2 Electroreduction on Mono- and Bi-Metallic M-N-C Catalysts. ECS Meeting Abstracts, 2021, MA2021-02, 831-831. | 0.0 | 0 |
| 22 | Platinum Nanoflowers: A New Class of Nanostructured Electrocatalysts for the Oxygen Reduction Reaction. ECS Meeting Abstracts, 2021, MA2021-02, 1278-1278. | 0.0 | 1 |
| 23 | Iron-Nitrogen-Carbon Catalysts for Proton Exchange Membrane Fuel Cells. Joule, 2020, 4, 33-44. | 11.7 | 264 |
| 24 | Integrating nanostructured Pt-based electrocatalysts in proton exchange membrane fuel cells. Journal of Power Sources, 2020, 478, 228516. | 4.0 | 44 |
| 25 | Facile All-Optical Method for In Situ Detection of Low Amounts of Ammonia. IScience, 2020, 23, 101757. | 1.9 | 12 |
| 26 | 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 |
| 27 | 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 |
| 28 | 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 |
| 29 | Metalâ€“Nitrogenâ€“Carbon Electrocatalysts for CO<sub>2</sub> Reduction towards Syngas Generation. ChemSusChem, 2020, 13, 1688-1698. | 3.6 | 36 |
| 30 | 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 |
| 31 | 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 |
| 32 | 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 |
| 33 | Hybrid Copper Macrocycle/Nickel-Nitrogen Doped Graphite for Aqueous Electrochemical Carbon Dioxide Reduction. ECS Meeting Abstracts, 2020, MA2020-02, 3223-3223. | 0.0 | 0 |
| 34 | 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 |
| 35 | Investigating the Nature of the Active Sites for the CO<sub>2</sub> Reduction Reaction on Carbon-Based Electrocatalysts. ACS Catalysis, 2019, 9, 7668-7678. | 5.5 | 58 |
| 36 | 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 |

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|---|---|---|---|
| 37 | Morphological Attributes Govern Carbon Dioxide Reduction on N-Doped Carbon Electrodes. Joule, 2019, 3, 1719-1733. | 11.7 | 132 |
| 38 | 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 |
| 39 | Small-angle scattering by supported nanoparticles: exact results and useful approximations. Journal of Applied Crystallography, 2019, 52, 507-519. | 1.9 | 7 |
| 40 | 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 |
| 41 | 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 |
| 42 | Pentavalent Metal Doped TiO2 As Corrosion-Resistant Electrocatalyst Supports in Polymer Electrolyte Membrane Fuel Cells. ECS Meeting Abstracts, 2019, , . | 0.0 | 0 |
| 43 | Understanding Pyrolysis of PGM-Free Electrocatalysts with X-Ray Computed Tomography. ECS Meeting Abstracts, 2019, , . | 0.0 | 0 |
| 44 | In Situ Characterization of Fe-N-C Electrocatalysts Synthesis By XPS and XRD. ECS Meeting Abstracts, 2019, , . | 0.0 | 0 |
| 45 | Kinetic Isotope Effect of the Oxygen Reduction Reaction on Carbon-Supported Platinum Electrocatalysts. ECS Meeting Abstracts, 2019, , . | 0.0 | 0 |
| 46 | Insights Onto the Active Sites and Reactivity of Metal-Doped Carbonaceous Electrocatalysts for the CO2 Reduction Reaction. ECS Meeting Abstracts, 2019, , . | 0.0 | 0 |
| 47 | Role of Protons on Activity and Selectivity of Fe-N-C Electroctatalysts for Oxygen Reduction Reaction. ECS Meeting Abstracts, 2019, , . | 0.0 | 0 |
| 48 | Iron-Nitrogen-Carbon (Fe-N-C) Active Sites Imaging By Scanning Transmission Electron Microscopy (STEM). ECS Meeting Abstracts, 2019, , . | 0.0 | 0 |
| 49 | Design of Pd-Pb Catalysts for Glycerol and Ethylene Glycol Electrooxidation in Alkaline Medium. Electrocatalysis, 2018, 9, 480-485. | 1.5 | 20 |
| 50 | 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 |
| 51 | 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 |
| 52 | Porous Hollow PtNi/C Electrocatalysts: Carbon Support Considerations To Meet Performance and Stability Requirements. ACS Catalysis, 2018, 8, 893-903. | 5.5 | 67 |
| 53 | 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 |
| 54 | 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 |

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|---|---|---|---|
| 55 | Implementing PGM-free electrocatalysts in high-temperature polymer electrolyte membrane fuel cells. Electrochemistry Communications, 2018, 93, 91-94. | 2.3 | 24 |
| 56 | Surface distortion as a unifying concept and descriptor in oxygen reduction reaction electrocatalysis. Nature Materials, 2018, 17, 827-833. | 13.3 | 344 |
| 57 | 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 |
| 58 | 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 |
| 59 | Atomic-Scale Snapshots of the Formation and Growth of Hollow PtNi/C Nanocatalysts. Nano Letters, 2017, 17, 2447-2453. | 4.5 | 40 |
| 60 | Implementing Structural Disorder as a Promising Direction for Improving the Stability of PtNi/C Nanoparticles. ACS Catalysis, 2017, 7, 3072-3081. | 5.5 | 61 |
| 61 | (Invited) Porous Hollow PtNi/C Nanoparticles and Their Many Facets. ECS Transactions, 2017, 80, 731-741. | 0.3 | 2 |
| 62 | Elucidating the Mechanisms Driving the Aging of Porous Hollow PtNi/C Nanoparticles by Means of CO<sub>ads</sub> Stripping. ACS Applied Materials & Interfaces, 2017, 9, 25298-25307. | 4.0 | 19 |
| 63 | 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 |
| 64 | Structureâ€“Activity Relationships for the Oxygen Reduction Reaction in Porous Hollow PtNi/C Nanoparticles. ChemElectroChem, 2016, 3, 1591-1600. | 1.7 | 16 |
| 65 | Highly active and selective nickel molybdenum catalysts for direct hydrazine fuel cell. Electrochimica Acta, 2016, 215, 420-426. | 2.6 | 59 |
| 66 | Defects do Catalysis: CO Monolayer Oxidation and Oxygen Reduction Reaction on Hollow PtNi/C Nanoparticles. ACS Catalysis, 2016, 6, 4673-4684. | 5.5 | 107 |
| 67 | Highly-active Pdâ€“Cu electrocatalysts for oxidation of ubiquitous oxygenated fuels. Applied Catalysis B: Environmental, 2016, 191, 76-85. | 10.8 | 61 |
| 68 | Influence of the Temperature for the Ethanol Oxidation Reaction (EOR) on Pt/C, Ptâ€Rh/C and Ptâ€Rhâ€SnO<sub>2</sub>/C. Fuel Cells, 2015, 15, 352-360. | 1.5 | 28 |
| 69 | 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 |
| 70 | Palladium Supported on 3D Graphene as an Active Catalyst for Alcohols Electrooxidation. Journal of the Electrochemical Society, 2015, 162, F1305-F1309. | 1.3 | 41 |
| 71 | 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 |