

# Manuel Gliech

## List of Publications by Year in descending order

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Version: 2024-02-01

29  
papers

5,873  
citations

279701

23  
h-index

477173

29  
g-index

30  
all docs

30  
docs citations

30  
times ranked

7414  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Reversible amorphization and the catalytically active state of crystalline Co <sub>3</sub> O <sub>4</sub> during oxygen evolution. <i>Nature Communications</i> , 2015, 6, 8625.   | 5.8  | 694       |
| 2  | In-situ structure and catalytic mechanism of NiFe and CoFe layered double hydroxides during oxygen evolution. <i>Nature Communications</i> , 2020, 11, 2522.   | 5.8  | 594       |
| 3  | Tracking Catalyst Redox States and Reaction Dynamics in Ni-Fe Oxyhydroxide Oxygen Evolution Reaction Electrocatalysts: The Role of Catalyst Support and Electrolyte pH. <i>Journal of the American Chemical Society</i> , 2017, 139, 2070-2082.              | 6.6  | 518       |
| 4  | Design Criteria, Operating Conditions, and Nickel-Iron Hydroxide Catalyst Materials for Selective Seawater Electrolysis. <i>ChemSusChem</i> , 2016, 9, 962-972.  | 3.6  | 467       |
| 5  | Electrochemical Catalyst-Support Effects and Their Stabilizing Role for IrO <sub>x</sub> Nanoparticle Catalysts during the Oxygen Evolution Reaction. <i>Journal of the American Chemical Society</i> , 2016, 138, 12552-12563.                              | 6.6  | 451       |
| 6  | A unique oxygen ligand environment facilitates water oxidation in hole-doped IrNiO <sub>x</sub> core-shell electrocatalysts. <i>Nature Catalysis</i> , 2018, 1, 841-851.   | 16.1 | 424       |
| 7  | Unified structural motifs of the catalytically active state of Co(oxyhydr)oxides during the electrochemical oxygen evolution reaction. <i>Nature Catalysis</i> , 2018, 1, 711-719.   | 16.1 | 415       |
| 8  | Ionomer distribution control in porous carbon-supported catalyst layers for high-power and low Pt-loaded proton exchange membrane fuel cells. <i>Nature Materials</i> , 2020, 19, 77-85.   | 13.3 | 400       |
| 9  | Oxide-supported Ir nanodendrites with high activity and durability for the oxygen evolution reaction in acid PEM water electrolyzers. <i>Chemical Science</i> , 2015, 6, 3321-3328.  | 3.7  | 332       |
| 10 | An efficient bifunctional two-component catalyst for oxygen reduction and oxygen evolution in reversible fuel cells, electrolyzers and rechargeable air electrodes. <i>Energy and Environmental Science</i> , 2016, 9, 2020-2024.                            | 15.6 | 221       |
| 11 | Direct Electrolytic Splitting of Seawater: Activity, Selectivity, Degradation, and Recovery Studied from the Molecular Catalyst Structure to the Electrolyzer Cell Level. <i>Advanced Energy Materials</i> , 2018, 8, 1800338.                               | 10.2 | 185       |
| 12 | Intrinsic Electrocatalytic Activity for Oxygen Evolution of Crystalline 3d-Transition Metal Layered Double Hydroxides. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 14446-14457.   | 7.2  | 170       |
| 13 | Tantalum Nitride Nanorod Arrays: Introducing Ni-Fe Layered Double Hydroxides as a Cocatalyst Strongly Stabilizing Photoanodes in Water Splitting. <i>Chemistry of Materials</i> , 2015, 27, 2360-2366.   | 3.2  | 158       |
| 14 | Elemental Anisotropic Growth and Atomic-Scale Structure of Shape-Controlled Octahedral Pt-Ni-Co Alloy Nanocatalysts. <i>Nano Letters</i> , 2015, 15, 7473-7480.  | 4.5  | 156       |
| 15 | Electrocatalytic CO <sub>2</sub> Reduction on CuO Nanocubes: Tracking the Evolution of Chemical State, Geometric Structure, and Catalytic Selectivity using Operando Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 17974-17983. | 7.2  | 138       |
| 16 | Electrochemical processes on solid shaped nanoparticles with defined facets. <i>Chemical Society Reviews</i> , 2018, 47, 715-735.  | 18.7 | 129       |
| 17 | Dynamical changes of a Ni-Fe oxide water splitting catalyst investigated at different pH. <i>Catalysis Today</i> , 2016, 262, 65-73.   | 2.2  | 86        |
| 18 | The Effect of Surface Site Ensembles on the Activity and Selectivity of Ethanol Electrooxidation by Octahedral PtNiRh Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 6533-6538.   | 7.2  | 81        |

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|----|--|-----|-----------|
| 19 | Electrocatalytic CO <sub>2</sub> Reduction on CuO <sub>x</sub> Nanocubes: Tracking the Evolution of Chemical State, Geometric Structure, and Catalytic Selectivity using Operando Spectroscopy. <i>Angewandte Chemie</i> , 2020, 132, 18130-18139. | 1.6 | 45        |
| 20 | Electrochemical Dealloying of Bimetallic ORR Nanoparticle Catalysts at Constant Electrode Potentials. <i>Journal of the Electrochemical Society</i> , 2015, 162, F403-F409.  | 1.3 | 40        |
| 21 | pH-Induced versus Oxygen-Induced Surface Enrichment and Segregation Effects in Pt–Ni Alloy Nanoparticle Fuel Cell Catalysts. <i>ACS Catalysis</i> , 2017, 7, 6376-6384.  | 5.5 | 40        |
| 22 | Intrinsic Electrocatalytic Activity for Oxygen Evolution of Crystalline 3d-Transition Metal Layered Double Hydroxides. <i>Angewandte Chemie</i> , 2021, 133, 14567-14578.  | 1.6 | 30        |
| 23 | The Effect of Surface Site Ensembles on the Activity and Selectivity of Ethanol Electrooxidation by Octahedral PtNiRh Nanoparticles. <i>Angewandte Chemie</i> , 2017, 129, 6633-6638.  | 1.6 | 25        |
| 24 | Synthesis–structure correlations of manganese–cobalt mixed metal oxide nanoparticles. <i>Journal of Energy Chemistry</i> , 2016, 25, 278-281.  | 7.1 | 23        |
| 25 | Molecular Analysis of the Unusual Stability of an IrNbO <sub>x</sub> Catalyst for the Electrochemical Water Oxidation to Molecular Oxygen (OER). <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 3748-3761.                              | 4.0 | 20        |
| 26 | Comparative assessment of synthetic strategies toward active platinum–rhodium–tin electrocatalysts for efficient ethanol electro-oxidation. <i>Journal of Power Sources</i> , 2015, 294, 299-304.  | 4.0 | 18        |
| 27 | Supported metal oxide nanoparticle electrocatalysts: How immobilization affects catalytic performance. <i>Applied Catalysis A: General</i> , 2018, 568, 11-15.   | 2.2 | 7         |
| 28 | Synthesis of Ni–SiO <sub>2</sub> /C Supported Platinum Catalysts for Improved Electrochemical Activity Towards Ethanol Oxidation. <i>Journal of Nanoscience and Nanotechnology</i> , 2019, 19, 4590-4598.  | 0.9 | 4         |
| 29 | Solute Incorporation at Oxide–Oxide Interfaces Explains How Ternary Mixed–Metal Oxide Nanocrystals Support Element–Specific Anisotropic Growth. <i>Advanced Functional Materials</i> , 2020, 30, 1909054.  | 7.8 | 2         |