

# Dowon Bae

## List of Publications by Citations

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167  
papers

30,221  
citations

56  
h-index

173  
g-index

185  
ext. papers

35,841  
ext. citations

13.7  
avg, IF

7.52  
L-index

| #   | Paper  | IF   | Citations |
|-----|--|------|-----------|
| 167 | Combining theory and experiment in electrocatalysis: Insights into materials design. <i>Science</i> , <b>2017</b> , 355,   | 33.3 | 5239      |
| 166 | Identification of active edge sites for electrochemical H <sub>2</sub> evolution from MoS <sub>2</sub> nanocatalysts. <i>Science</i> , <b>2007</b> , 317, 100-2                  | 33.3 | 4319      |
| 165 | Biomimetic hydrogen evolution: MoS <sub>2</sub> nanoparticles as catalyst for hydrogen evolution. <i>Journal of the American Chemical Society</i> , <b>2005</b> , 127, 5308-9    | 16.4 | 2895      |
| 164 | Computational high-throughput screening of electrocatalytic materials for hydrogen evolution. <i>Nature Materials</i> , <b>2006</b> , 5, 909-13                                  | 27   | 2624      |
| 163 | Progress and Perspectives of Electrochemical CO Reduction on Copper in Aqueous Electrolyte. <i>Chemical Reviews</i> , <b>2019</b> , 119, 7610-7672                               | 68.1 | 1244      |
| 162 | Molybdenum sulfides—efficient and viable materials for electro- and photoelectrocatalytic hydrogen evolution. <i>Energy and Environmental Science</i> , <b>2012</b> , 5, 5577    | 35.4 | 1094      |
| 161 | Understanding the electrocatalysis of oxygen reduction on platinum and its alloys. <i>Energy and Environmental Science</i> , <b>2012</b> , 5, 6744                               | 35.4 | 852       |
| 160 | Discovery of a Ni-Ga catalyst for carbon dioxide reduction to methanol. <i>Nature Chemistry</i> , <b>2014</b> , 6, 320-4   | 17.6 | 689       |
| 159 | A rigorous electrochemical ammonia synthesis protocol with quantitative isotope measurements. <i>Nature</i> , <b>2019</b> , 570, 504-508   | 50.4 | 617       |
| 158 | Tuning the activity of Pt alloy electrocatalysts by means of the lanthanide contraction. <i>Science</i> , <b>2016</b> , 352, 73-6  | 33.3 | 575       |
| 157 | Bioinspired molecular co-catalysts bonded to a silicon photocathode for solar hydrogen evolution. <i>Nature Materials</i> , <b>2011</b> , 10, 434-8                              | 27   | 556       |
| 156 | Recent Development in Hydrogen Evolution Reaction Catalysts and Their Practical Implementation. <i>Journal of Physical Chemistry Letters</i> , <b>2015</b> , 6, 951-7            | 6.4  | 526       |
| 155 | Electrochemical Ammonia Synthesis—The Selectivity Challenge. <i>ACS Catalysis</i> , <b>2017</b> , 7, 706-709   | 13.1 | 442       |
| 154 | Quantifying the promotion of Cu catalysts by ZnO for methanol synthesis. <i>Science</i> , <b>2016</b> , 352, 969-74  | 33.3 | 397       |
| 153 | Using TiO <sub>2</sub> as a conductive protective layer for photocathodic H <sub>2</sub> evolution. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 1057-64 | 16.4 | 392       |
| 152 | Probing the Active Surface Sites for CO Reduction on Oxide-Derived Copper Electrocatalysts. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 9808-11         | 16.4 | 389       |
| 151 | Toward the Decentralized Electrochemical Production of H <sub>2</sub> O <sub>2</sub> : A Focus on the Catalysis. <i>ACS Catalysis</i> , <b>2018</b> , 8, 4064-4081               | 13.1 | 341       |

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|-----|--|------|-----|
| 150 | Strategies for stable water splitting via protected photoelectrodes. <i>Chemical Society Reviews</i> , <b>2017</b> , 46, 1933-1954   | 58.5 | 331 |
| 149 | Toward sustainable fuel cells. <i>Science</i> , <b>2016</b> , 354, 1378-1379   | 33.3 | 281 |
| 148 | Hydrogen production using a molybdenum sulfide catalyst on a titanium-protected n(+)p-silicon photocathode. <i>Angewandte Chemie - International Edition</i> , <b>2012</b> , 51, 9128-31                     | 16.4 | 270 |
| 147 | Oxygen evolution on well-characterized mass-selected Ru and RuO nanoparticles. <i>Chemical Science</i> , <b>2015</b> , 6, 190-196  | 9.4  | 248 |
| 146 | Mass-selected nanoparticles of Pt <sub>x</sub> Y as model catalysts for oxygen electroreduction. <i>Nature Chemistry</i> , <b>2014</b> , 6, 732-8  | 17.6 | 234 |
| 145 | Benchmarking the Stability of Oxygen Evolution Reaction Catalysts: The Importance of Monitoring Mass Losses. <i>ChemElectroChem</i> , <b>2014</b> , 1, 2075-2081   | 4.3  | 229 |
| 144 | Hydrogen Evolution on Supported Incomplete Cubane-type [Mo <sub>3</sub> S <sub>4</sub> ] <sup>4+</sup> Electrocatalysts. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 17492-17498             | 3.8  | 200 |
| 143 | Towards identifying the active sites on RuO <sub>2</sub> (110) in catalyzing oxygen evolution. <i>Energy and Environmental Science</i> , <b>2017</b> , 10, 2626-2637   | 35.4 | 185 |
| 142 | New cubic perovskites for one- and two-photon water splitting using the computational materials repository. <i>Energy and Environmental Science</i> , <b>2012</b> , 5, 9034                                  | 35.4 | 178 |
| 141 | Acetaldehyde as an Intermediate in the Electroreduction of Carbon Monoxide to Ethanol on Oxide-Derived Copper. <i>Angewandte Chemie - International Edition</i> , <b>2016</b> , 55, 1450-4                   | 16.4 | 134 |
| 140 | Insights into the carbon balance for CO <sub>2</sub> electroreduction on Cu using gas diffusion electrode reactor designs. <i>Energy and Environmental Science</i> , <b>2020</b> , 13, 977-985               | 35.4 | 133 |
| 139 | Electrified methane reforming: A compact approach to greener industrial hydrogen production. <i>Science</i> , <b>2019</b> , 364, 756-759   | 33.3 | 131 |
| 138 | Toward an Active and Stable Catalyst for Oxygen Evolution in Acidic Media: Ti-Stabilized MnO <sub>2</sub> . <i>Advanced Energy Materials</i> , <b>2015</b> , 5, 1500991                                      | 21.8 | 131 |
| 137 | Scalability and feasibility of photoelectrochemical H <sub>2</sub> evolution: the ultimate limit of Pt nanoparticle as an HER catalyst. <i>Energy and Environmental Science</i> , <b>2015</b> , 8, 2991-2999 | 35.4 | 127 |
| 136 | 2-Photon tandem device for water splitting: comparing photocathode first versus photoanode first designs. <i>Energy and Environmental Science</i> , <b>2014</b> , 7, 2397-2413                               | 35.4 | 112 |
| 135 | Enhancing Activity for the Oxygen Evolution Reaction: The Beneficial Interaction of Gold with Manganese and Cobalt Oxides. <i>ChemCatChem</i> , <b>2015</b> , 7, 149-154                                     | 5.2  | 99  |
| 134 | Layered Nanojunctions for Hydrogen-Evolution Catalysis. <i>Angewandte Chemie</i> , <b>2013</b> , 125, 3709-3713  | 3.6  | 99  |
| 133 | Silicon protected with atomic layer deposited TiO <sub>2</sub> : durability studies of photocathodic H <sub>2</sub> evolution. <i>RSC Advances</i> , <b>2013</b> , 3, 25902                                  | 3.7  | 95  |

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| 132 | Analysis of Mass Flows and Membrane Cross-over in CO Reduction at High Current Densities in an MEA-Type Electrolyzer. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 41281-41288                             | 9.5  | 90 |
| 131 | Iron-Treated NiO as a Highly Transparent p-Type Protection Layer for Efficient Si-Based Photoanodes. <i>Journal of Physical Chemistry Letters</i> , <b>2014</b> , 5, 3456-61  | 6.4  | 88 |
| 130 | Protection of p(+)-n-Si Photoanodes by Sputter-Deposited Ir/IrOx Thin Films. <i>Journal of Physical Chemistry Letters</i> , <b>2014</b> , 5, 1948-52  | 6.4  | 84 |
| 129 | Is There Anything Better than Pt for HER?. <i>ACS Energy Letters</i> , <b>2021</b> , 6, 1175-1180   | 20.1 | 83 |
| 128 | Enhanced activity and stability of Pt <sub>111</sub> a and Pt <sub>111</sub> e alloys for oxygen electroreduction: the elucidation of the active surface phase. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 4234 | 13   | 80 |
| 127 | MoS <sub>2</sub> -an integrated protective and active layer on n(+)-p-Si for solar H <sub>2</sub> evolution. <i>Physical Chemistry Chemical Physics</i> , <b>2013</b> , 15, 20000-4   | 3.6  | 79 |
| 126 | Trends in Activity and Dissolution on RuO <sub>2</sub> under Oxygen Evolution Conditions: Particles versus Well-Defined Extended Surfaces. <i>ACS Energy Letters</i> , <b>2018</b> , 3, 2045-2051                               | 20.1 | 77 |
| 125 | Operando identification of site-dependent water oxidation activity on ruthenium dioxide single-crystal surfaces. <i>Nature Catalysis</i> , <b>2020</b> , 3, 516-525   | 36.5 | 74 |
| 124 | The Difficulty of Proving Electrochemical Ammonia Synthesis. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 2986-2988   | 20.1 | 74 |
| 123 | Crystalline TiO <sub>2</sub> : A Generic and Effective Electron-Conducting Protection Layer for Photoanodes and -cathodes. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 15019-15027                              | 3.8  | 73 |
| 122 | Promotion through gas phase induced surface segregation: methanol synthesis from CO, CO <sub>2</sub> and H <sub>2</sub> over Ni/Cu(100). <i>Catalysis Letters</i> , <b>1998</b> , 54, 171-176                                   | 2.8  | 70 |
| 121 | The enhanced activity of mass-selected Pt <sub>x</sub> Gd nanoparticles for oxygen electroreduction. <i>Journal of Catalysis</i> , <b>2015</b> , 328, 297-307   | 7.3  | 68 |
| 120 | Formation of a p/n heterojunction on GaP photocathodes for H <sub>2</sub> production providing an open-circuit voltage of 710 mV. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 6847-6853                          | 13   | 66 |
| 119 | Absence of Oxidized Phases in Cu under CO Reduction Conditions. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 803-804  | 20.1 | 64 |
| 118 | Back-illuminated Si photocathode: a combined experimental and theoretical study for photocatalytic hydrogen evolution. <i>Energy and Environmental Science</i> , <b>2015</b> , 8, 650-660                                       | 35.4 | 63 |
| 117 | Structure Sensitivity in the Electrocatalytic Reduction of CO with Gold Catalysts. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 3774-3778   | 16.4 | 62 |
| 116 | Sulfide perovskites for solar energy conversion applications: computational screening and synthesis of the selected compound LaYS <sub>3</sub> . <i>Energy and Environmental Science</i> , <b>2017</b> , 10, 2579-2593          | 35.4 | 61 |
| 115 | Importance of Surface IrO in Stabilizing RuO for Oxygen Evolution. <i>Journal of Physical Chemistry B</i> , <b>2018</b> , 122, 947-955  | 3.4  | 58 |

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| 114 | Elucidation of the Oxygen Reduction Volcano in Alkaline Media using a Copper-Platinum(111) Alloy. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 2800-2805   | 16.4 | 56 |
| 113 | A Versatile Method for Ammonia Detection in a Range of Relevant Electrolytes via Direct Nuclear Magnetic Resonance Techniques. <i>ACS Catalysis</i> , <b>2019</b> , 9, 5797-5802   | 13.1 | 54 |
| 112 | Quantification of Zinc Atoms in a Surface Alloy on Copper in an Industrial-Type Methanol Synthesis Catalyst. <i>Angewandte Chemie</i> , <b>2014</b> , 126, 6051-6055   | 3.6  | 54 |
| 111 | Gas phase photocatalytic water splitting with Rh <sub>2</sub> CrO <sub>3</sub> /GaN:ZnO in reactors. <i>Energy and Environmental Science</i> , <b>2011</b> , 4, 2937   | 35.4 | 53 |
| 110 | Comment on "Active sites for CO hydrogenation to methanol on Cu/ZnO catalysts". <i>Science</i> , <b>2017</b> , 357,  | 33.3 | 52 |
| 109 | Electroreduction of CO on Polycrystalline Copper at Low Overpotentials. <i>ACS Energy Letters</i> , <b>2018</b> , 3, 634-640   | 20.1 | 50 |
| 108 | Increasing stability, efficiency, and fundamental understanding of lithium-mediated electrochemical nitrogen reduction. <i>Energy and Environmental Science</i> , <b>2020</b> , 13, 4291-4300  | 35.4 | 50 |
| 107 | Selective CO Methanation on Highly Active Ru/TiO <sub>2</sub> Catalysts: Identifying the Physical Origin of the Observed Activation/Deactivation and Loss in Selectivity. <i>ACS Catalysis</i> , <b>2018</b> , 8, 5399-5414          | 13.1 | 45 |
| 106 | Protection of Si photocathode using TiO <sub>2</sub> deposited by high power impulse magnetron sputtering for H <sub>2</sub> evolution in alkaline media. <i>Solar Energy Materials and Solar Cells</i> , <b>2016</b> , 144, 758-765 | 6.4  | 45 |
| 105 | Silicon protected with atomic layer deposited TiO <sub>2</sub> : conducting versus tunnelling through TiO <sub>2</sub> . <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 15089  | 13   | 45 |
| 104 | Operando XAS Study of the Surface Oxidation State on a Monolayer IrO on RuO and Ru Oxide Based Nanoparticles for Oxygen Evolution in Acidic Media. <i>Journal of Physical Chemistry B</i> , <b>2018</b> , 122, 878-887               | 3.4  | 45 |
| 103 | Effect of Particle Morphology on the Ripening of Supported Pt Nanoparticles. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 5646-5653   | 3.8  | 44 |
| 102 | Hydrogen evolution on Au(111) covered with submonolayers of Pd. <i>Physical Review B</i> , <b>2011</b> , 84,   | 3.3  | 43 |
| 101 | Scalable Synthesis of Carbon-Supported Platinum-Lanthanide and Rare-Earth Alloys for Oxygen Reduction. <i>ACS Catalysis</i> , <b>2018</b> , 8, 2071-2080   | 13.1 | 42 |
| 100 | Probing the nanoscale structure of the catalytically active overlayer on Pt alloys with rare earths. <i>Nano Energy</i> , <b>2016</b> , 29, 249-260  | 17.1 | 40 |
| 99  | The Effect of Size on the Oxygen Electroreduction Activity of Mass-Selected Platinum Nanoparticles. <i>Angewandte Chemie</i> , <b>2012</b> , 124, 4719-4721  | 3.6  | 40 |
| 98  | Revealing the Formation of Copper Nanoparticles from a Homogeneous Solid Precursor by Electron Microscopy. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 3433-42  | 16.4 | 40 |
| 97  | Cocatalyst Designing: A Regenerable Molybdenum-Containing Ternary Cocatalyst System for Efficient Photocatalytic Water Splitting. <i>ACS Catalysis</i> , <b>2015</b> , 5, 5530-5539  | 13.1 | 36 |

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| 96 | Polycrystalline and Single-Crystal Cu Electrodes: Influence of Experimental Conditions on the Electrochemical Properties in Alkaline Media. <i>Chemistry - A European Journal</i> , <b>2018</b> , 24, 17743-17755  | 4.8  | 35 |
| 95 | Particle Size Effect on Platinum Dissolution: Considerations for Accelerated Stability Testing of Fuel Cell Catalysts. <i>ACS Catalysis</i> , <b>2020</b> , 10, 6281-6290  | 13.1 | 34 |
| 94 | Role of ion-selective membranes in the carbon balance for CO electroreduction gas diffusion electrode reactor designs. <i>Chemical Science</i> , <b>2020</b> , 11, 8854-8861   | 9.4  | 34 |
| 93 | Acid-Stable Oxides for Oxygen Electrocatalysis. <i>ACS Energy Letters</i> , <b>2020</b> , 5, 2905-2908   | 20.1 | 34 |
| 92 | Thiol- and disulfide-modified oligonucleotide monolayer structures on polycrystalline and single-crystal Au(111) surfaces. <i>Journal of Solid State Electrochemistry</i> , <b>2004</b> , 8, 474-481   | 2.6  | 33 |
| 91 | Hydrogen Production Using a Molybdenum Sulfide Catalyst on a Titanium-Protected n+p-Silicon Photocathode. <i>Angewandte Chemie</i> , <b>2012</b> , 124, 9262-9265  | 3.6  | 32 |
| 90 | Investigation of Al <sub>2</sub> O <sub>3</sub> diffusion barrier layer fabricated by atomic layer deposition for flexible Cu(In,Ga)Se <sub>2</sub> solar cells. <i>Renewable Energy</i> , <b>2013</b> , 55, 62-68   | 8.1  | 32 |
| 89 | A comparative study of two techniques for determining photocatalytic activity of nitrogen doped TiO <sub>2</sub> nanotubes under visible light irradiation: Photocatalytic reduction of dye and photocatalytic oxidation of organic molecules. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>2011</b> , 222, 258-262 | 4.7  | 32 |
| 88 | Acetaldehyde as an Intermediate in the Electroreduction of Carbon Monoxide to Ethanol on Oxide-Derived Copper. <i>Angewandte Chemie</i> , <b>2016</b> , 128, 1472-1476   | 3.6  | 31 |
| 87 | Solar Redox Flow Batteries with Organic Redox Couples in Aqueous Electrolytes: A Minireview. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 25729-25740   | 3.8  | 30 |
| 86 | Carrier-selective p- and n-contacts for efficient and stable photocatalytic water reduction. <i>Catalysis Today</i> , <b>2017</b> , 290, 59-64   | 5.3  | 29 |
| 85 | Unbiased, complete solar charging of a neutral flow battery by a single Si photocathode.. <i>RSC Advances</i> , <b>2018</b> , 8, 6331-6340   | 3.7  | 28 |
| 84 | High Specific and Mass Activity for the Oxygen Reduction Reaction for Thin Film Catalysts of Sputtered Pt <sub>3</sub> Y. <i>Advanced Materials Interfaces</i> , <b>2017</b> , 4, 1700311  | 4.6  | 25 |
| 83 | Methane Steam Reforming Kinetics for a Rhodium-Based Catalyst. <i>Catalysis Letters</i> , <b>2010</b> , 140, 90-97   | 2.8  | 24 |
| 82 | Fingerprint Voltammograms of Copper Single Crystals under Alkaline Conditions: A Fundamental Mechanistic Analysis. <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 1450-1455  | 6.4  | 23 |
| 81 | Methanol Synthesis on Potassium-Modified Cu(100) from CO + H <sub>2</sub> and CO + CO <sub>2</sub> + H <sub>2</sub> . <i>Topics in Catalysis</i> , <b>2003</b> , 22, 151-160   | 2.3  | 23 |
| 80 | Tailoring Mixed-Halide, Wide-Gap Perovskites via Multistep Conversion Process. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 14301-6  | 9.5  | 23 |
| 79 | Methods for nitrogen activation by reduction and oxidation. <i>Nature Reviews Methods Primers</i> , <b>2021</b> , 1,   |      | 21 |

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|----|--|------|----|
| 78 | Towards an atomistic understanding of electrocatalytic partial hydrocarbon oxidation: propene on palladium. <i>Energy and Environmental Science</i> , <b>2019</b> , 12, 1055-1067        | 35.4 | 20 |
| 77 | Deactivating Carbon Formation on a Ni/Al <sub>2</sub> O <sub>3</sub> Catalyst under Methanation Conditions. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 15556-15564      | 3.8  | 19 |
| 76 | Effect of Dissolved Glassware on the Structure-Sensitive Part of the Cu(111) Voltammogram in KOH. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 1645-1649                                 | 20.1 | 19 |
| 75 | Back-Illuminated Si-Based Photoanode with Nickel Cobalt Oxide Catalytic Protection Layer. <i>ChemElectroChem</i> , <b>2016</b> , 3, 1546-1552  | 4.3  | 19 |
| 74 | Enhancement of lithium-mediated ammonia synthesis by addition of oxygen.. <i>Science</i> , <b>2021</b> , 374, 1593-1597  | 39.7 | 19 |
| 73 | Parallel Evaluation of the BiI <sub>3</sub> , BiOI, and Ag <sub>3</sub> BiI <sub>6</sub> Layered Photoabsorbers. <i>Chemistry of Materials</i> , <b>2020</b> , 32, 3385-3395             | 9.6  | 18 |
| 72 | Durability Testing of Photoelectrochemical Hydrogen Production under Day/Night Light Cycled Conditions. <i>ChemElectroChem</i> , <b>2019</b> , 6, 106-109                                | 4.3  | 18 |
| 71 | Fast and sensitive method for detecting volatile species in liquids. <i>Review of Scientific Instruments</i> , <b>2015</b> , 86, 075006  | 1.7  | 18 |
| 70 | Assessing the defect tolerance of kesterite-inspired solar absorbers. <i>Energy and Environmental Science</i> , <b>2020</b> , 13, 3489-3503  | 35.4 | 17 |
| 69 | Monitoring oxygen production on mass-selected iridium-tantalum oxide electrocatalysts. <i>Nature Energy</i> , <b>2022</b> , 7, 55-64   | 62.3 | 17 |
| 68 | Size-Dependence of the Melting Temperature of Individual Au Nanoparticles. <i>Particle and Particle Systems Characterization</i> , <b>2019</b> , 36, 1800480                             | 3.1  | 16 |
| 67 | Synthesis of a Hybrid Nanostructure of ZnO-Decorated MoS <sub>2</sub> by Atomic Layer Deposition. <i>ACS Nano</i> , <b>2020</b> , 14, 1757-1769  | 16.7 | 16 |
| 66 | Fabrication of Cu <sub>2</sub> ZnSnS <sub>4</sub> Thin Film Solar Cell Using Single Step Electrodeposition Method. <i>Japanese Journal of Applied Physics</i> , <b>2012</b> , 51, 10NC27 | 1.4  | 16 |
| 65 | Computational high-throughput screening of electrocatalytic materials for hydrogen evolution <b>2010</b> , 280-284   |      | 16 |
| 64 | Effect of zinc addition on properties of cadmium sulfide layer and performance of Cu(In,Ga)Se <sub>2</sub> solar cell. <i>Thin Solid Films</i> , <b>2013</b> , 535, 162-165              | 2.2  | 15 |
| 63 | Structural Modification of Platinum Model Systems under High Pressure CO Annealing. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 15353-15360                              | 3.8  | 15 |
| 62 | Wide Band Gap Cu <sub>2</sub> SrSnS <sub>4</sub> Solar Cells from Oxide Precursors. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 7340-7344                                     | 13   | 13 |
| 61 | Bottom-Up Design of a Copper-Ruthenium Nanoparticulate Catalyst for Low-Temperature Ammonia Oxidation. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 8711-8715    | 16.4 | 12 |



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|----|---|------|----|
| 60 | Engineering Ni-Mo-S Nanoparticles for Hydrodesulfurization. <i>Nano Letters</i> , <b>2018</b> , 18, 3454-3460   | 11.5 | 12 |
| 59 | Reduced sintering of mass-selected Au clusters on SiO by alloying with Ti: an aberration-corrected STEM and computational study. <i>Nanoscale</i> , <b>2018</b> , 10, 2363-2370                                       | 7.7  | 12 |
| 58 | Ultralarge area MOS tunnel devices for electron emission. <i>Physical Review B</i> , <b>2007</b> , 76,  | 3.3  | 12 |
| 57 | Fabrication of Cu <sub>2</sub> ZnSnS <sub>4</sub> Thin Film Solar Cell Using Single Step Electrodeposition Method. <i>Japanese Journal of Applied Physics</i> , <b>2012</b> , 51, 10NC27                              | 1.4  | 12 |
| 56 | Origins of the Instability of Nonprecious Hydrogen Evolution Reaction Catalysts at Open-Circuit Potential. <i>ACS Energy Letters</i> , <b>2021</b> , 6, 2268-2274   | 20.1 | 12 |
| 55 | Activity of RuO <sub>2</sub> -Based Electrodes in the Electrocatalytic Reduction of CO <sub>2</sub> . <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 17765-17773   | 3.8  | 10 |
| 54 | Unravelling the practical solar charging performance limits of redox flow batteries based on a single photon device system. <i>Sustainable Energy and Fuels</i> , <b>2019</b> , 3, 2399-2408                          | 5.8  | 10 |
| 53 | Dehydrogenation of Light Alkanes Over Rhenium Catalysts on Conventional and Mesoporous MFI Supports. <i>Catalysis Letters</i> , <b>2006</b> , 109, 153-156  | 2.8  | 10 |
| 52 | Active-Phase Formation and Stability of Gd/Pt(111) Electrocatalysts for Oxygen Reduction: An In Situ Grazing Incidence X-Ray Diffraction Study. <i>Chemistry - A European Journal</i> , <b>2018</b> , 24, 12280-12290 | 4.8  | 10 |
| 51 | Ta <sub>2</sub> S <sub>5</sub> Back Contact Improving Oxide-Converted Cu <sub>2</sub> BaSnS <sub>4</sub> Solar Cells. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 1190-1198                                | 6.1  | 9  |
| 50 | Anodic molecular hydrogen formation on Ru and Cu electrodes. <i>Catalysis Science and Technology</i> , <b>2020</b> , 10, 6870-6878  | 5.5  | 9  |
| 49 | Evolution of intermetallic GaPd/SiO catalyst and optimization for methanol synthesis at ambient pressure. <i>Science and Technology of Advanced Materials</i> , <b>2019</b> , 20, 521-531                             | 7.1  | 8  |
| 48 | H <sub>2</sub> /D <sub>2</sub> exchange reaction on mono-disperse Pt clusters: enhanced activity from minute O <sub>2</sub> concentrations. <i>Catalysis Science and Technology</i> , <b>2016</b> , 6, 6893-6900      | 5.5  | 8  |
| 47 | Strong Metal Support Interaction of Pt and Ru Nanoparticles Deposited on HOPG Probed by the H-D Exchange Reaction. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 5773-5780                              | 3.8  | 8  |
| 46 | Design principles for efficient photoelectrodes in solar rechargeable redox flow cell applications. <i>Communications Materials</i> , <b>2020</b> , 1,  | 6    | 8  |
| 45 | Bottom-Up Design of a CopperRuthenium Nanoparticulate Catalyst for Low-Temperature Ammonia Oxidation. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 8837-8841   | 3.6  | 7  |
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