

Dowon Bae

List of Publications by Year in Descending Order

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Version: 2024-04-28

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Analysis of the Facets of Cu-Based Electrocatalysts in Alkaline Media Using Pb Underpotential Deposition.. <i>Langmuir</i> , 2022 ,	4	2
166	Monitoring oxygen production on mass-selected iridium-tantalum oxide electrocatalysts. <i>Nature Energy</i> , 2022 , 7, 55-64	62.3	17
165	A spin promotion effect in catalytic ammonia synthesis.. <i>Nature Communications</i> , 2022 , 13, 2382	17.4	5
164	Oxygen-Enhanced Chemical Stability of Lithium-Mediated Electrochemical Ammonia Synthesis.. <i>Journal of Physical Chemistry Letters</i> , 2022 , 4605-4611	6.4	4
163	Two-dimensional metal carbides for electro- and photocatalytic CO ₂ reduction: Review. <i>Journal of CO₂ Utilization</i> , 2021 , 55, 101814	7.6	2
162	How to extract adsorption energies, adsorbate-adsorbate interaction parameters and saturation coverages from temperature programmed desorption experiments. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 24396-24402	3.6	1
161	Online Electrochemistry-Mass Spectrometry Evaluation of the Acidic Oxygen Evolution Reaction at Supported Catalysts. <i>ACS Catalysis</i> , 2021 , 11, 12745-12753	13.1	4
160	Is There Anything Better than Pt for HER?. <i>ACS Energy Letters</i> , 2021 , 6, 1175-1180	20.1	83
159	Semitransparent Selenium Solar Cells as a Top Cell for Tandem Photovoltaics. <i>Solar Rrl</i> , 2021 , 5, 2100117	7.1	4
158	The Importance of Potential Control for Accurate Studies of Electrochemical CO Reduction. <i>ACS Energy Letters</i> , 2021 , 6, 1879-1885	20.1	6
157	Dynamic Interfacial Reaction Rates from Electrochemistry-Mass Spectrometry. <i>Analytical Chemistry</i> , 2021 , 93, 7022-7028	7.8	2
156	Origins of the Instability of Nonprecious Hydrogen Evolution Reaction Catalysts at Open-Circuit Potential. <i>ACS Energy Letters</i> , 2021 , 6, 2268-2274	20.1	12
155	CO as a Probe Molecule to Study Surface Adsorbates during Electrochemical Oxidation of Propene. <i>ChemElectroChem</i> , 2021 , 8, 250-256	4.3	4
154	Chemisorbed oxygen or surface oxides steer the selectivity in Pd electrocatalytic propene oxidation observed by operando Pd L-edge X-ray absorption spectroscopy. <i>Catalysis Science and Technology</i> , 2021 , 11, 3347-3352	5.5	1
153	Towards understanding of electrolyte degradation in lithium-mediated non-aqueous electrochemical ammonia synthesis with gas chromatography-mass spectrometry.. <i>RSC Advances</i> , 2021 , 11, 31487-31498	3.7	7
152	Interaction of CO with Gold in an Electrochemical Environment. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 17684-17689	3.8	3
151	Methods for nitrogen activation by reduction and oxidation. <i>Nature Reviews Methods Primers</i> , 2021 , 1,		21

150	Enhancement of lithium-mediated ammonia synthesis by addition of oxygen.. <i>Science</i> , 2021 , 374, 1593-1597	39.3	19
149	Experimental and First-Principles Spectroscopy of CuSrSnS and CuBaSnS Photoabsorbers. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 50446-50454	9.5	5
148	Particle Size Effect on Platinum Dissolution: Considerations for Accelerated Stability Testing of Fuel Cell Catalysts. <i>ACS Catalysis</i> , 2020 , 10, 6281-6290	13.1	34
147	Operando identification of site-dependent water oxidation activity on ruthenium dioxide single-crystal surfaces. <i>Nature Catalysis</i> , 2020 , 3, 516-525	36.5	74
146	Optimizing Ni ₂ FeGa alloys into Ni ₂ FeGa for the Hydrogenation of CO ₂ into Methanol. <i>ChemCatChem</i> , 2020 , 12, 3265-3273	5.2	7
145	Hidden figures of photo-charging: a thermo-electrochemical approach for a solar-rechargeable redox flow cell system. <i>Sustainable Energy and Fuels</i> , 2020 , 4, 2650-2655	5.8	5
144	Parallel Evaluation of the BiI ₃ , BiOI, and Ag ₃ BiI ₆ Layered Photoabsorbers. <i>Chemistry of Materials</i> , 2020 , 32, 3385-3395	9.6	18
143	Tailored energy level alignment at MoO ₃ /GaP interface for solar-driven redox flow battery application. <i>Journal of Chemical Physics</i> , 2020 , 152, 124710	3.9	3
142	Synthesis of a Hybrid Nanostructure of ZnO-Decorated MoS ₂ by Atomic Layer Deposition. <i>ACS Nano</i> , 2020 , 14, 1757-1769	16.7	16
141	Fingerprint Voltammograms of Copper Single Crystals under Alkaline Conditions: A Fundamental Mechanistic Analysis. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 1450-1455	6.4	23
140	Insights into the carbon balance for CO ₂ electroreduction on Cu using gas diffusion electrode reactor designs. <i>Energy and Environmental Science</i> , 2020 , 13, 977-985	35.4	133
139	TaS ₂ Back Contact Improving Oxide-Converted Cu ₂ BaSnS ₄ Solar Cells. <i>ACS Applied Energy Materials</i> , 2020 , 3, 1190-1198	6.1	9
138	X-ray Absorption Spectroscopy Investigation of Platinum-Cadmium Thin Films with Different Stoichiometry for the Oxygen Reduction Reaction. <i>Catalysts</i> , 2020 , 10, 978	4	1
137	Increasing stability, efficiency, and fundamental understanding of lithium-mediated electrochemical nitrogen reduction. <i>Energy and Environmental Science</i> , 2020 , 13, 4291-4300	35.4	50
136	Wireless Photoelectrochemical Water Splitting Using Triple-Junction Solar Cell Protected by TiO ₂ . <i>Cell Reports Physical Science</i> , 2020 , 1, 100261	6.1	4
135	Role of ion-selective membranes in the carbon balance for CO electroreduction gas diffusion electrode reactor designs. <i>Chemical Science</i> , 2020 , 11, 8854-8861	9.4	34
134	Anodic molecular hydrogen formation on Ru and Cu electrodes. <i>Catalysis Science and Technology</i> , 2020 , 10, 6870-6878	5.5	9
133	Assessing the defect tolerance of kesterite-inspired solar absorbers. <i>Energy and Environmental Science</i> , 2020 , 13, 3489-3503	35.4	17

132	Acid-Stable Oxides for Oxygen Electrocatalysis. <i>ACS Energy Letters</i> , 2020 , 5, 2905-2908	20.1	34
131	Design principles for efficient photoelectrodes in solar rechargeable redox flow cell applications. <i>Communications Materials</i> , 2020 , 1,	6	8
130	Wide Band Gap Cu ₂ SrSnS ₄ Solar Cells from Oxide Precursors. <i>ACS Applied Energy Materials</i> , 2019 , 2, 7340-7344	13	13
129	Structure Sensitivity in the Electrocatalytic Reduction of CO with Gold Catalysts. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 3774-3778	16.4	62
128	Size-Dependence of the Melting Temperature of Individual Au Nanoparticles. <i>Particle and Particle Systems Characterization</i> , 2019 , 36, 1800480	3.1	16
127	Progress and Perspectives of Electrochemical CO Reduction on Copper in Aqueous Electrolyte. <i>Chemical Reviews</i> , 2019 , 119, 7610-7672	68.1	1244
126	Effect of Dissolved Glassware on the Structure-Sensitive Part of the Cu(111) Voltammogram in KOH. <i>ACS Energy Letters</i> , 2019 , 4, 1645-1649	20.1	19
125	A rigorous electrochemical ammonia synthesis protocol with quantitative isotope measurements. <i>Nature</i> , 2019 , 570, 504-508	50.4	617
124	Evolution of intermetallic GaPd/SiO catalyst and optimization for methanol synthesis at ambient pressure. <i>Science and Technology of Advanced Materials</i> , 2019 , 20, 521-531	7.1	8
123	A Versatile Method for Ammonia Detection in a Range of Relevant Electrolytes via Direct Nuclear Magnetic Resonance Techniques. <i>ACS Catalysis</i> , 2019 , 9, 5797-5802	13.1	54
122	Activity or Lack Thereof of RuO ₂ -Based Electrodes in the Electrocatalytic Reduction of CO ₂ . <i>Journal of Physical Chemistry C</i> , 2019 , 123, 17765-17773	3.8	10
121	Electrified methane reforming: A compact approach to greener industrial hydrogen production. <i>Science</i> , 2019 , 364, 756-759	33.3	131
120	Durability Testing of Photoelectrochemical Hydrogen Production under Day/Night Light Cycled Conditions. <i>ChemElectroChem</i> , 2019 , 6, 106-109	4.3	18
119	Unravelling the practical solar charging performance limits of redox flow batteries based on a single photon device system. <i>Sustainable Energy and Fuels</i> , 2019 , 3, 2399-2408	5.8	10
118	Analysis of Mass Flows and Membrane Cross-over in CO Reduction at High Current Densities in an MEA-Type Electrolyzer. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 41281-41288	9.5	90
117	In situ Probing of Nanostructure Surfaces. <i>Microscopy and Microanalysis</i> , 2019 , 25, 2080-2081	0.5	
116	On the Possibilities and Considerations of Interfacing Ultra-High Vacuum Equipment with an Electrochemical Setup. <i>ChemPhysChem</i> , 2019 , 20, 3024-3029	3.2	5
115	Towards an atomistic understanding of electrocatalytic partial hydrocarbon oxidation: propene on palladium. <i>Energy and Environmental Science</i> , 2019 , 12, 1055-1067	35.4	20

114	Absence of Oxidized Phases in Cu under CO Reduction Conditions. <i>ACS Energy Letters</i> , 2019 , 4, 803-804	20.1	64
113	The Difficulty of Proving Electrochemical Ammonia Synthesis. <i>ACS Energy Letters</i> , 2019 , 4, 2986-2988	20.1	74
112	Supercritical flow synthesis of PtPdFe alloyed nanoparticles with enhanced low-temperature activity and thermal stability for propene oxidation under lean exhaust gas conditions. <i>Catalysis Science and Technology</i> , 2019 , 9, 6691-6699	5.5	1
111	Unbiased, complete solar charging of a neutral flow battery by a single Si photocathode.. <i>RSC Advances</i> , 2018 , 8, 6331-6340	3.7	28
110	Frontispiece: Elucidation of the Oxygen Reduction Volcano in Alkaline Media using a Copper-Platinum(111) Alloy. <i>Angewandte Chemie - International Edition</i> , 2018 , 57,	16.4	1
109	Engineering Ni-Mo-S Nanoparticles for Hydrodesulfurization. <i>Nano Letters</i> , 2018 , 18, 3454-3460	11.5	12
108	Scalable Synthesis of Carbon-Supported Platinum-Lanthanide and Rare-Earth Alloys for Oxygen Reduction. <i>ACS Catalysis</i> , 2018 , 8, 2071-2080	13.1	42
107	Elucidation of the Oxygen Reduction Volcano in Alkaline Media using a Copper-Platinum(111) Alloy. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 2800-2805	16.4	56
106	Elucidation of the Oxygen Reduction Volcano in Alkaline Media using a Copper-Platinum(111) Alloy. <i>Angewandte Chemie</i> , 2018 , 130, 2850-2855	3.6	5
105	Electroreduction of CO on Polycrystalline Copper at Low Overpotentials. <i>ACS Energy Letters</i> , 2018 , 3, 634-640	20.1	50
104	Reduced sintering of mass-selected Au clusters on SiO ₂ by alloying with Ti: an aberration-corrected STEM and computational study. <i>Nanoscale</i> , 2018 , 10, 2363-2370	7.7	12
103	Ambient Pressure Hydrodesulfurization of Refractory Sulfur Compounds in Highly Sensitive Reactor Platform Coupled to a Time-of-Flight Mass Spectrometer. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 1699-1705	3.8	4
102	Selective CO Methanation on Highly Active Ru/TiO ₂ Catalysts: Identifying the Physical Origin of the Observed Activation/Deactivation and Loss in Selectivity. <i>ACS Catalysis</i> , 2018 , 8, 5399-5414	13.1	45
101	Toward the Decentralized Electrochemical Production of H ₂ O ₂ : A Focus on the Catalysis. <i>ACS Catalysis</i> , 2018 , 8, 4064-4081	13.1	341
100	Importance of Surface IrO in Stabilizing RuO for Oxygen Evolution. <i>Journal of Physical Chemistry B</i> , 2018 , 122, 947-955	3.4	58
99	Trends in Activity and Dissolution on RuO ₂ under Oxygen Evolution Conditions: Particles versus Well-Defined Extended Surfaces. <i>ACS Energy Letters</i> , 2018 , 3, 2045-2051	20.1	77
98	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> , 2018 , 122, 878-887	3.4	45
97	Solar Redox Flow Batteries with Organic Redox Couples in Aqueous Electrolytes: A Minireview. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 25729-25740	3.8	30

96	Polycrystalline and Single-Crystal Cu Electrodes: Influence of Experimental Conditions on the Electrochemical Properties in Alkaline Media. <i>Chemistry - A European Journal</i> , 2018 , 24, 17743-17755	4.8	35
95	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> , 2018 , 24, 12280-12290	4.8	10
94	Combining theory and experiment in electrocatalysis: Insights into materials design. <i>Science</i> , 2017 , 355,	33.3	5239
93	Strategies for stable water splitting via protected photoelectrodes. <i>Chemical Society Reviews</i> , 2017 , 46, 1933-1954	58.5	331
92	Bottom-Up Design of a Copper-Ruthenium Nanoparticulate Catalyst for Low-Temperature Ammonia Oxidation. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 8711-8715	16.4	12
91	Deactivating Carbon Formation on a Ni/Al ₂ O ₃ Catalyst under Methanation Conditions. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 15556-15564	3.8	19
90	High Specific and Mass Activity for the Oxygen Reduction Reaction for Thin Film Catalysts of Sputtered Pt ₃ Y. <i>Advanced Materials Interfaces</i> , 2017 , 4, 1700311	4.6	25
89	Bottom-Up Design of a Copper-Ruthenium Nanoparticulate Catalyst for Low-Temperature Ammonia Oxidation. <i>Angewandte Chemie</i> , 2017 , 129, 8837-8841	3.6	7
88	Electrochemical Ammonia Synthesis—the Selectivity Challenge. <i>ACS Catalysis</i> , 2017 , 7, 706-709	13.1	442
87	1s2p resonant inelastic X-ray scattering combined dipole and quadrupole analysis method. <i>Journal of Synchrotron Radiation</i> , 2017 , 24, 296-301	2.4	7
86	Comment on "Active sites for CO hydrogenation to methanol on Cu/ZnO catalysts". <i>Science</i> , 2017 , 357,	33.3	52
85	Towards identifying the active sites on RuO ₂ (110) in catalyzing oxygen evolution. <i>Energy and Environmental Science</i> , 2017 , 10, 2626-2637	35.4	185
84	Sulfide perovskites for solar energy conversion applications: computational screening and synthesis of the selected compound LaYS ₃ . <i>Energy and Environmental Science</i> , 2017 , 10, 2579-2593	35.4	61
83	Carrier-selective p- and n-contacts for efficient and stable photocatalytic water reduction. <i>Catalysis Today</i> , 2017 , 290, 59-64	5.3	29
82	Investigating the coverage dependent behaviour of CO on Gd/Pt(111). <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 29732-29739	3.6	4
81	Probing the nanoscale structure of the catalytically active overlayer on Pt alloys with rare earths. <i>Nano Energy</i> , 2016 , 29, 249-260	17.1	40
80	H ₂ /D ₂ exchange reaction on mono-disperse Pt clusters: enhanced activity from minute O ₂ concentrations. <i>Catalysis Science and Technology</i> , 2016 , 6, 6893-6900	5.5	8
79	Back-Illuminated Si-Based Photoanode with Nickel Cobalt Oxide Catalytic Protection Layer. <i>ChemElectroChem</i> , 2016 , 3, 1546-1552	4.3	19

78	Protection of Si photocathode using TiO ₂ deposited by high power impulse magnetron sputtering for H ₂ evolution in alkaline media. <i>Solar Energy Materials and Solar Cells</i> , 2016 , 144, 758-765	6.4	45
77	Novel micro-reactor flow cell for investigation of model catalysts using in situ grazing-incidence X-ray scattering. <i>Journal of Synchrotron Radiation</i> , 2016 , 23, 455-63	2.4	1
76	Identification of core-shell structures in high active Pt-alloy catalysts for oxygen reduction by electron spectroscopy 2016 , 173-174		
75	Toward sustainable fuel cells. <i>Science</i> , 2016 , 354, 1378-1379	33.3	281
74	Tuning the activity of Pt alloy electrocatalysts by means of the lanthanide contraction. <i>Science</i> , 2016 , 352, 73-6	33.3	575
73	Tailoring Mixed-Halide, Wide-Gap Perovskites via Multistep Conversion Process. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 14301-6	9.5	23
72	Quantifying the promotion of Cu catalysts by ZnO for methanol synthesis. <i>Science</i> , 2016 , 352, 969-74	33.3	397
71	Revealing the Formation of Copper Nanoparticles from a Homogeneous Solid Precursor by Electron Microscopy. <i>Journal of the American Chemical Society</i> , 2016 , 138, 3433-42	16.4	40
70	Acetaldehyde as an Intermediate in the Electroreduction of Carbon Monoxide to Ethanol on Oxide-Derived Copper. <i>Angewandte Chemie</i> , 2016 , 128, 1472-1476	3.6	31
69	Acetaldehyde as an Intermediate in the Electroreduction of Carbon Monoxide to Ethanol on Oxide-Derived Copper. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 1450-4	16.4	134
68	Back-Illuminated Si-Based Photoanode with Nickel Cobalt Oxide Catalytic Protection Layer. <i>ChemElectroChem</i> , 2016 , 3, 1517-1517	4.3	7
67	Probing the Active Surface Sites for CO Reduction on Oxide-Derived Copper Electrocatalysts. <i>Journal of the American Chemical Society</i> , 2015 , 137, 9808-11	16.4	389
66	Recent Development in Hydrogen Evolution Reaction Catalysts and Their Practical Implementation. <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 951-7	6.4	526
65	Cocatalyst Designing: A Regenerable Molybdenum-Containing Ternary Cocatalyst System for Efficient Photocatalytic Water Splitting. <i>ACS Catalysis</i> , 2015 , 5, 5530-5539	13.1	36
64	Scalability and feasibility of photoelectrochemical H ₂ evolution: the ultimate limit of Pt nanoparticle as an HER catalyst. <i>Energy and Environmental Science</i> , 2015 , 8, 2991-2999	35.4	127
63	SOLAR FUELS. A quick look at how photoelectrodes work. <i>Science</i> , 2015 , 350, 1030-1	33.3	7
62	Back-illuminated Si photocathode: a combined experimental and theoretical study for photocatalytic hydrogen evolution. <i>Energy and Environmental Science</i> , 2015 , 8, 650-660	35.4	63
61	Oxygen evolution on well-characterized mass-selected Ru and RuO nanoparticles. <i>Chemical Science</i> , 2015 , 6, 190-196	9.4	248

60	Enhancing Activity for the Oxygen Evolution Reaction: The Beneficial Interaction of Gold with Manganese and Cobalt Oxides. <i>ChemCatChem</i> , 2015 , 7, 149-154	5.2	99
59	Fast and sensitive method for detecting volatile species in liquids. <i>Review of Scientific Instruments</i> , 2015 , 86, 075006	1.7	18
58	Toward an Active and Stable Catalyst for Oxygen Evolution in Acidic Media: Ti-Stabilized MnO ₂ . <i>Advanced Energy Materials</i> , 2015 , 5, 1500991	21.8	131
57	Determination of Core-Shell Structures in Pd-Hg Nanoparticles by STEM-EDX. <i>ChemCatChem</i> , 2015 , 7, 3748-3752	5.2	6
56	The enhanced activity of mass-selected Pt _x Gd nanoparticles for oxygen electroreduction. <i>Journal of Catalysis</i> , 2015 , 328, 297-307	7.3	68
55	Crystalline TiO ₂ : A Generic and Effective Electron-Conducting Protection Layer for Photoanodes and -cathodes. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 15019-15027	3.8	73
54	Discovery of a Ni-Ga catalyst for carbon dioxide reduction to methanol. <i>Nature Chemistry</i> , 2014 , 6, 320-417.6	17.6	689
53	Formation of a p-n heterojunction on GaP photocathodes for H ₂ production providing an open-circuit voltage of 710 mV. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 6847-6853	13	66
52	Enhanced activity and stability of Pt ₁₁ a and Pt ₁₁ e alloys for oxygen electroreduction: the elucidation of the active surface phase. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 4234	13	80
51	In situ ETEM synthesis of NiGa alloy nanoparticles from nitrate salt solution. <i>Microscopy (Oxford, England)</i> , 2014 , 63, 397-401	1.3	6
50	Iron-Treated NiO as a Highly Transparent p-Type Protection Layer for Efficient Si-Based Photoanodes. <i>Journal of Physical Chemistry Letters</i> , 2014 , 5, 3456-61	6.4	88
49	Mass-selected nanoparticles of Pt _x Y as model catalysts for oxygen electroreduction. <i>Nature Chemistry</i> , 2014 , 6, 732-8	17.6	234
48	Protection of p(+)-n-Si Photoanodes by Sputter-Deposited Ir/IrO _x Thin Films. <i>Journal of Physical Chemistry Letters</i> , 2014 , 5, 1948-52	6.4	84
47	2-Photon tandem device for water splitting: comparing photocathode first versus photoanode first designs. <i>Energy and Environmental Science</i> , 2014 , 7, 2397-2413	35.4	112
46	Quantification of Zinc Atoms in a Surface Alloy on Copper in an Industrial-Type Methanol Synthesis Catalyst. <i>Angewandte Chemie</i> , 2014 , 126, 6051-6055	3.6	54
45	Controlled environment specimen transfer. <i>Microscopy and Microanalysis</i> , 2014 , 20, 1038-45	0.5	2
44	Benchmarking the Stability of Oxygen Evolution Reaction Catalysts: The Importance of Monitoring Mass Losses. <i>ChemElectroChem</i> , 2014 , 1, 2075-2081	4.3	229
43	Morphology of Ruthenium Particles for Methanation under Reactive Conditions. <i>Microscopy and Microanalysis</i> , 2014 , 20, 416-417	0.5	

42	MoS ₂ -an integrated protective and active layer on n(+)p-Si for solar H ₂ evolution. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 20000-4	3.6	79
41	Silicon protected with atomic layer deposited TiO ₂ : conducting versus tunnelling through TiO ₂ . <i>Journal of Materials Chemistry A</i> , 2013 , 1, 15089	13	45
40	Silicon protected with atomic layer deposited TiO ₂ : durability studies of photocathodic H ₂ evolution. <i>RSC Advances</i> , 2013 , 3, 25902	3.7	95
39	Effect of zinc addition on properties of cadmium sulfide layer and performance of Cu(In,Ga)Se ₂ solar cell. <i>Thin Solid Films</i> , 2013 , 535, 162-165	2.2	15
38	Investigation of Al ₂ O ₃ diffusion barrier layer fabricated by atomic layer deposition for flexible Cu(In,Ga)Se ₂ solar cells. <i>Renewable Energy</i> , 2013 , 55, 62-68	8.1	32
37	Using TiO ₂ as a conductive protective layer for photocathodic H ₂ evolution. <i>Journal of the American Chemical Society</i> , 2013 , 135, 1057-64	16.4	392
36	Layered Nanojunctions for Hydrogen-Evolution Catalysis. <i>Angewandte Chemie</i> , 2013 , 125, 3709-3713	3.6	99
35	Molybdenum sulfides—efficient and viable materials for electro- and photoelectrocatalytic hydrogen evolution. <i>Energy and Environmental Science</i> , 2012 , 5, 5577	35.4	1094
34	Structural Modification of Platinum Model Systems under High Pressure CO Annealing. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 15353-15360	3.8	15
33	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> , 2012 , 116, 5773-5780	3.8	8
32	Hydrogen Production Using a Molybdenum Sulfide Catalyst on a Titanium-Protected n+p-Silicon Photocathode. <i>Angewandte Chemie</i> , 2012 , 124, 9262-9265	3.6	32
31	Hydrogen production using a molybdenum sulfide catalyst on a titanium-protected n(+)p-silicon photocathode. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 9128-31	16.4	270
30	Effect of Particle Morphology on the Ripening of Supported Pt Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 5646-5653	3.8	44
29	New cubic perovskites for one- and two-photon water splitting using the computational materials repository. <i>Energy and Environmental Science</i> , 2012 , 5, 9034	35.4	178
28	Understanding the electrocatalysis of oxygen reduction on platinum and its alloys. <i>Energy and Environmental Science</i> , 2012 , 5, 6744	35.4	852
27	The Effect of Size on the Oxygen Electroreduction Activity of Mass-Selected Platinum Nanoparticles. <i>Angewandte Chemie</i> , 2012 , 124, 4719-4721	3.6	40
26	Fabrication of Cu ₂ ZnSnS ₄ Thin Film Solar Cell Using Single Step Electrodeposition Method. <i>Japanese Journal of Applied Physics</i> , 2012 , 51, 10NC27	1.4	16
25	Fabrication of Cu ₂ ZnSnS ₄ Thin Film Solar Cell Using Single Step Electrodeposition Method. <i>Japanese Journal of Applied Physics</i> , 2012 , 51, 10NC27	1.4	12

24	Hydrogen evolution on Au(111) covered with submonolayers of Pd. <i>Physical Review B</i> , 2011 , 84,	3.3	43
23	Bioinspired molecular co-catalysts bonded to a silicon photocathode for solar hydrogen evolution. <i>Nature Materials</i> , 2011 , 10, 434-8	27	556
22	A comparative study of two techniques for determining photocatalytic activity of nitrogen doped TiO ₂ nanotubes under visible light irradiation: Photocatalytic reduction of dye and photocatalytic oxidation of organic molecules. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2011 , 222, 258-262	4.7	32
21	Minimierung des Platinbedarfs bei wasserstoffentwickelnden Elektroden. <i>Angewandte Chemie</i> , 2011 , 123, 1512-1513	3.6	7
20	Gas phase photocatalytic water splitting with Rh ₂ O ₃ /Cr ₂ O ₃ /GaN:ZnO in reactors. <i>Energy and Environmental Science</i> , 2011 , 4, 2937	35.4	53
19	Fabrication of High Efficiency Flexible CIGS Solar Cell with ZnO Diffusion Barrier on Stainless Steel Substrate. <i>Materials Research Society Symposia Proceedings</i> , 2011 , 1324, 115		3
18	Computational high-throughput screening of electrocatalytic materials for hydrogen evolution 2010 , 280-284		16
17	Methane Steam Reforming Kinetics for a Rhodium-Based Catalyst. <i>Catalysis Letters</i> , 2010 , 140, 90-97	2.8	24
16	Hydrogen Evolution on Supported Incomplete Cubane-type [Mo ₃ S ₄] ⁴⁺ Electrocatalysts. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 17492-17498	3.8	200
15	Properties of Hydrogen 2008 , 71-147		3
14	Identification of active edge sites for electrochemical H ₂ evolution from MoS ₂ nanocatalysts. <i>Science</i> , 2007 , 317, 100-2	33.3	4319
13	Ultralarge area MOS tunnel devices for electron emission. <i>Physical Review B</i> , 2007 , 76,	3.3	12
12	Computational high-throughput screening of electrocatalytic materials for hydrogen evolution. <i>Nature Materials</i> , 2006 , 5, 909-13	27	2624
11	Dehydrogenation of Light Alkanes Over Rhenium Catalysts on Conventional and Mesoporous MFI Supports. <i>Catalysis Letters</i> , 2006 , 109, 153-156	2.8	10
10	Biomimetic hydrogen evolution: MoS ₂ nanoparticles as catalyst for hydrogen evolution. <i>Journal of the American Chemical Society</i> , 2005 , 127, 5308-9	16.4	2895
9	Thiol- and disulfide-modified oligonucleotide monolayer structures on polycrystalline and single-crystal Au(111) surfaces. <i>Journal of Solid State Electrochemistry</i> , 2004 , 8, 474-481	2.6	33
8	Methanol Synthesis on Potassium-Modified Cu(100) from CO + H ₂ and CO + CO ₂ + H ₂ . <i>Topics in Catalysis</i> , 2003 , 22, 151-160	2.3	23
7	Promotion through gas phase induced surface segregation: methanol synthesis from CO, CO ₂ and H ₂ over Ni/Cu(100). <i>Catalysis Letters</i> , 1998 , 54, 171-176	2.8	70

6	Optimized CoNi Nanoparticle Composition for Curie-Temperature-Controlled Induction-Heated Catalysis. <i>ACS Applied Nano Materials</i> ,	5.6	2
5	Perspective Insights into Solar-Rechargeable Redox Flow Cell Design: A Practical Perspective for Lab-Scale Experiments. <i>Journal of the Electrochemical Society</i> ,	3.9	2
4	Selenium Thin-Film Solar Cells with Cadmium Sulfide as a Heterojunction Partner. <i>ACS Applied Energy Materials</i> ,	6.1	3
3	Reversible Solid Oxide Cells	91-101	1
2	The low overpotential regime of acidic water oxidation part I: the importance of O ₂ detection. <i>Energy and Environmental Science</i> ,	35-4	2
1	Transients in Electrochemical CO Reduction Explained by Mass Transport of Buffers. <i>ACS Catalysis</i> ,	5155-5161	3