

# Kenneth Davey

## List of Publications by Citations

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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.

63

papers

5,891

citations

34

h-index

72

g-index

72

ext. papers

8,032

ext. citations

15.8

avg. IF

6.65

L-index

#	Paper	IF	Citations
63	Activity origin and catalyst design principles for electrocatalytic hydrogen evolution on heteroatom-doped graphene. <i>Nature Energy</i> , <b>2016</b> , 1,	62.3	703
62	Efficient and Stable Bifunctional Electrocatalysts Ni/NixMy (M = P, S) for Overall Water Splitting. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 3314-3323	15.6	690
61	An Electrolytic Zn-MnO Battery for High-Voltage and Scalable Energy Storage. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 7823-7828	16.4	464
60	2D phosphorene as a water splitting photocatalyst: fundamentals to applications. <i>Energy and Environmental Science</i> , <b>2016</b> , 9, 709-728	35.4	420
59	Transition-Metal-Doped RuIr Bifunctional Nanocrystals for Overall Water Splitting in Acidic Environments. <i>Advanced Materials</i> , <b>2019</b> , 31, e1900510	24	261
58	Advent of 2D Rhenium Disulfide (ReS <sub>2</sub> ): Fundamentals to Applications. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1606129	15.6	224
57	2D MoN-VN Heterostructure To Regulate Polysulfides for Highly Efficient Lithium-Sulfur Batteries. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 16703-16707	16.4	224
56	Advantageous crystalline/morphous phase boundary for enhanced electrochemical water oxidation. <i>Energy and Environmental Science</i> , <b>2019</b> , 12, 2443-2454	35.4	172
55	Atomic-Level Reactive Sites for Semiconductor-Based Photocatalytic CO <sub>2</sub> Reduction. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 1903879	21.8	162
54	Boosting Zinc Electrode Reversibility in Aqueous Electrolytes by Using Low-Cost Antisolvents. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 7366-7375	16.4	161
53	Well-Dispersed Nickel- and Zinc-Tailored Electronic Structure of a Transition Metal Oxide for Highly Active Alkaline Hydrogen Evolution Reaction. <i>Advanced Materials</i> , <b>2019</b> , 31, e1807771	24	149
52	Tailoring Acidic Oxygen Reduction Selectivity on Single-Atom Catalysts via Modification of First and Second Coordination Spheres. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 7819-7827	16.4	126
51	Carbon, nitrogen and phosphorus containing metal-free photocatalysts for hydrogen production: progress and challenges. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 1305-1322	13	125
50	Regulating Electrocatalysts via Surface and Interface Engineering for Acidic Water Electrooxidation. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 2719-2730	20.1	124
49	Atomic Engineering Catalyzed MnO Electrolysis Kinetics for a Hybrid Aqueous Battery with High Power and Energy Density. <i>Advanced Materials</i> , <b>2020</b> , 32, e2001894	24	123
48	Long-Life Room-Temperature Sodium-Sulfur Batteries by Virtue of Transition-Metal-Nanocluster-Sulfur Interactions. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 1484-1488	16.4	113
47	Negative Charging of Transition-Metal Phosphides via Strong Electronic Coupling for Destabilization of Alkaline Water. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 11796-11800	16.4	101

46	A Benchmark Quantum Yield for Water Photoreduction on Amorphous Carbon Nitride. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1702384	15.6	94
45	Multiscale Structural Engineering of Ni-Doped CoO Nanosheets for Zinc-Air Batteries with High Power Density. <i>Advanced Materials</i> , <b>2018</b> , 30, e1804653	24	93
44	Molecular-Level Hybridization of Nafion with Quantum Dots for Highly Enhanced Proton Conduction. <i>Advanced Materials</i> , <b>2018</b> , 30, e1707516	24	90
43	Electron-State Confinement of Polysulfides for Highly Stable Sodium-Sulfur Batteries. <i>Advanced Materials</i> , <b>2020</b> , 32, e1907557	24	87
42	A computational study on Pt and Ru dimers supported on graphene for the hydrogen evolution reaction: new insight into the alkaline mechanism. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 3648-3654	13	86
41	1D Sub-Nanotubes with Anatase/Bronze TiO Nanocrystal Wall for High-Rate and Long-Life Sodium-Ion Batteries. <i>Advanced Materials</i> , <b>2018</b> , 30, e1804116	24	85
40	Mechanism for Zincophilic Sites on Zinc-Metal Anode Hosts in Aqueous Batteries. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2003419	21.8	79
39	Unveiling the Advances of 2D Materials for Li/Na-S Batteries Experimentally and Theoretically. <i>Matter</i> , <b>2020</b> , 2, 323-344	12.7	78
38	Strongly Coupled Nafion Molecules and Ordered Porous CdS Networks for Enhanced Visible-Light Photoelectrochemical Hydrogen Evolution. <i>Advanced Materials</i> , <b>2016</b> , 28, 4935-42	24	75
37	Rational Design of Spinel Cobalt Vanadate Oxide Co VO for Superior Electrocatalysis. <i>Advanced Materials</i> , <b>2020</b> , 32, e1907168	24	72
36	Photocatalysts for Hydrogen Evolution Coupled with Production of Value-Added Chemicals. <i>Small Methods</i> , <b>2020</b> , 4, 2000063	12.8	62
35	Efficient Nitrogen Fixation to Ammonia through Integration of Plasma Oxidation with Electrocatalytic Reduction. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 14131-14137	16.4	56
34	Long-Life Room-Temperature Sodium Sulfur Batteries by Virtue of Transition-Metal-Nanocluster Sulfur Interactions. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 1498-1502	3.6	50
33	Targeted Synergy between Adjacent Co Atoms on Graphene Oxide as an Efficient New Electrocatalyst for LiCO <sub>2</sub> Batteries. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1904206	15.6	49
32	An Electrolytic ZnMnO <sub>2</sub> Battery for High-Voltage and Scalable Energy Storage. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 7905-7910	3.6	49
31	Dual-Function Electrolyte Additive for Highly Reversible Zn Anode. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2102010	21.8	47
30	Boosting Zinc Electrode Reversibility in Aqueous Electrolytes by Using Low-Cost Antisolvents. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 7442-7451	3.6	43
29	1T'-ReS <sub>2</sub> Confined in 2D-Honeycombed Carbon Nanosheets as New Anode Materials for High-Performance Sodium-Ion Batteries. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1901146	21.8	32

28	Counteracting Blueshift Optical Absorption and Maximizing Photon Harvest in Carbon Nitride Nanosheet Photocatalyst. <i>Small</i> , <b>2017</b> , 13, 1700376	11	31
27	ReS <sub>2</sub> Nanosheets with In Situ Formed Sulfur Vacancies for Efficient and Highly Selective Photocatalytic CO <sub>2</sub> Reduction. <i>Small Science</i> , <b>2021</b> , 1, 2000052		30
26	Main-group elements boost electrochemical nitrogen fixation. <i>CheM</i> , <b>2021</b> ,	16.2	28
25	Graphene oxide coupled carbon nitride homo-heterojunction photocatalyst for enhanced hydrogen production. <i>Materials Chemistry Frontiers</i> , <b>2017</b> , 1, 562-571	7.8	27
24	Molecular Scalpel to Chemically Cleave Metal-Organic Frameworks for Induced Phase Transition. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 6681-6690	16.4	26
23	Molecular Cleavage of Metal-Organic Frameworks and Application to Energy Storage and Conversion. <i>Advanced Materials</i> , <b>2021</b> , e2104341	24	17
22	Efficient Nitrogen Fixation to Ammonia through Integration of Plasma Oxidation with Electrocatalytic Reduction. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 14250-14256	3.6	15
21	Negative Charging of Transition-Metal Phosphides via Strong Electronic Coupling for Destabilization of Alkaline Water. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 11922-11926	3.6	12
20	Directing the selectivity of CO <sub>2</sub> electroreduction to target C <sub>2</sub> products via non-metal doping on Cu surfaces. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 6345-6351	13	12
19	Catalytic Oxidation of KS via Atomic Co and Pyridinic N Synergy in Potassium-Sulfur Batteries. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 16902-16907	16.4	11
18	Revealing the Magnesium-Storage Mechanism in Mesoporous Bismuth via Spectroscopy and Ab-Initio Simulations. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 21728-21735	16.4	10
17	2D MoN-VN Heterostructure To Regulate Polysulfides for Highly Efficient Lithium-Sulfur Batteries. <i>Angewandte Chemie</i> , <b>2018</b> , 130, 16945-16949	3.6	10
16	Experimental validation of a time-dependent model for chemical taste taint accumulation as geosmin (GSM) and 2-methylisoborneol (MIB) in commercial RAS farmed barramundi ( <i>Lates calcarifer</i> ). <i>Ecological Modelling</i> , <b>2016</b> , 340, 17-27	3	9
15	Significantly Raised Visible-Light Photocatalytic H Evolution on a 2D/2D ReS /In ZnS van der Waals Heterostructure. <i>Small</i> , <b>2021</b> , 17, e2100296	11	9
14	A MoN electrocatalyst for efficient NaS electrodeposition in room-temperature sodium-sulfur batteries. <i>Nature Communications</i> , <b>2021</b> , 12, 7195	17.4	9
13	Spatial-confinement induced electroreduction of CO and CO to diols on densely-arrayed Cu nanopyramids. <i>Chemical Science</i> , <b>2021</b> , 12, 8079-8087	9.4	7
12	Enabling Pt-free photocatalytic hydrogen evolution on polymeric melon: Role of amorphization for overcoming the limiting factors. <i>Physical Review Materials</i> , <b>2018</b> , 2,	3.2	6
11	Sodium-Ion Batteries: 1T'-ReS <sub>2</sub> Confined in 2D-Honeycombed Carbon Nanosheets as New Anode Materials for High-Performance Sodium-Ion Batteries (Adv. Energy Mater. 30/2019). <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1970117	21.8	3

10	Revealing the Magnesium-Storage Mechanism in Mesoporous Bismuth via Spectroscopy and Ab-Initio Simulations. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 21912-21919	3.6	3
9	Electrocatalysis: Well-Dispersed Nickel- and Zinc-Tailored Electronic Structure of a Transition Metal Oxide for Highly Active Alkaline Hydrogen Evolution Reaction (Adv. Mater. 16/2019). <i>Advanced Materials</i> , <b>2019</b> , 31, 1970113	24	2
8	Hybrid Aqueous Batteries: Atomic Engineering Catalyzed MnO <sub>2</sub> Electrolysis Kinetics for a Hybrid Aqueous Battery with High Power and Energy Density (Adv. Mater. 25/2020). <i>Advanced Materials</i> , <b>2020</b> , 32, 2070191	24	2
7	A critical review of ferritin as a drug nanocarrier: Structure, properties, comparative advantages and challenges. <i>Particuology</i> , <b>2021</b> , 64, 65-65	2.8	1
6	Significantly Raised Visible-Light Photocatalytic H <sub>2</sub> Evolution on a 2D/2D ReS <sub>2</sub> /In <sub>2</sub> ZnS <sub>4</sub> van der Waals Heterostructure (Small 32/2021). <i>Small</i> , <b>2021</b> , 17, 2170168	11	1
5	Titelbild: 2D MoN-VN Heterostructure To Regulate Polysulfides for Highly Efficient Lithium-Sulfur Batteries (Angew. Chem. 51/2018). <i>Angewandte Chemie</i> , <b>2018</b> , 130, 16809-16809	3.6	0
4	A statistical approach to boost soluble expression of E. coli-derived virus-like particles in shake-flask cultivation.. <i>Journal of Biotechnology</i> , <b>2022</b> , 347, 56-66	3.7	0
3	A detailed research study of learning and teaching core chemical engineering to a high standard in a mixed-ability small class in industry. <i>European Journal of Engineering Education</i> , <b>2017</b> , 42, 775-799	1.5	
2	Water Splitting: Strongly Coupled Nafion Molecules and Ordered Porous CdS Networks for Enhanced Visible-Light Photoelectrochemical Hydrogen Evolution (Adv. Mater. 24/2016). <i>Advanced Materials</i> , <b>2016</b> , 28, 4943	24	
1	A quantitative failure assessment of ice slurry cooling of fish at sea to meet regulatory guidelines □ demonstrated with Southern Bluefin Tuna ( <i>Thunnus maccoyii</i> ). <i>Journal of Food Engineering</i> , <b>2016</b> , 183, 58-64	6	