Peter C K Vesborg

List of Publications by Year in descending order

55 papers	6,512 citations	136885 32 h-index	155592 55 g-index
57 all docs	57 docs citations	57 times ranked	9216 citing authors

#	Article	IF	Citations
1	A rigorous electrochemical ammonia synthesis protocol with quantitative isotope measurements. Nature, 2019, 570, 504-508.	13.7	1,006
2	Recent Development in Hydrogen Evolution Reaction Catalysts and Their Practical Implementation. Journal of Physical Chemistry Letters, 2015, 6, 951-957.	2.1	626
3	Addressing the terawatt challenge: scalability in the supply of chemical elements for renewable energy. RSC Advances, 2012, 2, 7933.	1.7	618
4	Bioinspired molecular co-catalysts bonded to a silicon photocathode for solar hydrogen evolution. Nature Materials, 2011, 10, 434-438.	13.3	600
5	Strategies for stable water splitting via protected photoelectrodes. Chemical Society Reviews, 2017, 46, 1933-1954.	18.7	427
6	Using TiO₂ as a Conductive Protective Layer for Photocathodic H₂ Evolution. Journal of the American Chemical Society, 2013, 135, 1057-1064.	6.6	426
7	Hydrogen Production Using a Molybdenum Sulfide Catalyst on a Titaniumâ€Protected n⁺pâ€Silicon Photocathode. Angewandte Chemie - International Edition, 2012, 51, 9128-9131.	7.2	289
8	Pathways to electrochemical solar-hydrogen technologies. Energy and Environmental Science, 2018, 11, 2768-2783.	15.6	238
9	A high-porosity carbon molybdenum sulphide composite with enhanced electrochemical hydrogen evolution and stability. Chemical Communications, 2013, 49, 4965.	2.2	147
10	2-Photon tandem device for water splitting: comparing photocathode first versus photoanode first designs. Energy and Environmental Science, 2014, 7, 2397-2413.	15.6	130
11	Increasing stability, efficiency, and fundamental understanding of lithium-mediated electrochemical nitrogen reduction. Energy and Environmental Science, 2020, 13, 4291-4300.	15.6	124
12	Enhancement of lithium-mediated ammonia synthesis by addition of oxygen. Science, 2021, 374, 1593-1597.	6.0	123
13	Silicon protected with atomic layer deposited TiO2: durability studies of photocathodic H2 evolution. RSC Advances, 2013, 3, 25902.	1.7	104
14	Protection of p⁺-n-Si Photoanodes by Sputter-Deposited Ir/IrO_x Thin Films. Journal of Physical Chemistry Letters, 2014, 5, 1948-1952.	2.1	97
15	A Versatile Method for Ammonia Detection in a Range of Relevant Electrolytes via Direct Nuclear Magnetic Resonance Techniques. ACS Catalysis, 2019, 9, 5797-5802.	5.5	97
16	Iron-Treated NiO as a Highly Transparent p-Type Protection Layer for Efficient Si-Based Photoanodes. Journal of Physical Chemistry Letters, 2014, 5, 3456-3461.	2.1	93
17	Sulfide perovskites for solar energy conversion applications: computational screening and synthesis of the selected compound LaYS₃. Energy and Environmental Science, 2017, 10, 2579-2593.	15.6	91
18	MoS2â€"an integrated protective and active layer on n+p-Si for solar H2 evolution. Physical Chemistry Chemical Physics, 2013, 15, 20000.	1.3	89

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19	Crystalline TiO₂: A Generic and Effective Electron-Conducting Protection Layer for Photoanodes and -cathodes. Journal of Physical Chemistry C, 2015, 119, 15019-15027.	1.5	85
20	Back-illuminated Si photocathode: a combined experimental and theoretical study for photocatalytic hydrogen evolution. Energy and Environmental Science, 2015, 8, 650-660.	15.6	76
21	Formation of a pâ€“n heterojunction on GaP photocathodes for H₂production providing an open-circuit voltage of 710 mV. Journal of Materials Chemistry A, 2014, 2, 6847-6853.	5.2	75
22	Gas phase photocatalytic water splitting with Rh2â^'yCryO3/GaN:ZnO in Î¼-reactors. Energy and Environmental Science, 2011, 4, 2937.	15.6	71
23	Comparison of the Performance of CoP-Coated and Pt-Coated Radial Junction n⁺p-Silicon Microwire-Array Photocathodes for the Sunlight-Driven Reduction of Water to H₂(g). Journal of Physical Chemistry Letters, 2015, 6, 1679-1683.	2.1	60
24	Silicon protected with atomic layer deposited TiO2: conducting versus tunnelling through TiO2. Journal of Materials Chemistry A, 2013, 1, 15089.	5.2	51
25	Parallel Evaluation of the BiI₃, BiOI, and Ag₃BiI₆ Layered Photoabsorbers. Chemistry of Materials, 2020, 32, 3385-3395.	3.2	48
26	Increasing Current Density of Li-Mediated Ammonia Synthesis with High Surface Area Copper Electrodes. ACS Energy Letters, 2022, 7, 36-41.	8.8	45
27	Photocatalytic methane decomposition over vertically aligned transparent TiO2 nanotube arrays. Chemical Communications, 2011, 47, 2613.	2.2	41
28	Deposition of methylammonium iodideviaevaporation â€“ combined kinetic and mass spectrometric study. RSC Advances, 2018, 8, 29899-29908.	1.7	41
29	Cocatalyst Designing: A Regenerable Molybdenum-Containing Ternary Cocatalyst System for Efficient Photocatalytic Water Splitting. ACS Catalysis, 2015, 5, 5530-5539.	5.5	40
30	Towards an atomistic understanding of electrocatalytic partial hydrocarbon oxidation: propene on palladium. Energy and Environmental Science, 2019, 12, 1055-1067.	15.6	39
31	Unbiased, complete solar charging of a neutral flow battery by a single Si photocathode. RSC Advances, 2018, 8, 6331-6340.	1.7	38
32	Shining Light on Sulfide Perovskites: LaYS₃ Material Properties and Solar Cells. Chemistry of Materials, 2019, 31, 3359-3369.	3.2	32
33	Performance Limits of Photoelectrochemical CO₂ Reduction Based on Known Electrocatalysts and the Case for Two-Electron Reduction Products. Chemistry of Materials, 2016, 28, 8844-8850.	3.2	30
34	Assessing the defect tolerance of kesterite-inspired solar absorbers. Energy and Environmental Science, 2020, 13, 3489-3503.	15.6	28
35	Quantitative Measurements of Photocatalytic CO-Oxidation as a Function of Light Intensity and Wavelength over TiO2 Nanotube Thin Films in Î¼-Reactors. Journal of Physical Chemistry C, 2010, 114, 11162-11168.	1.5	27
36	Mo₃S₄Clusters as an Effective H₂Evolution Catalyst on Protected Si Photocathodes. Journal of the Electrochemical Society, 2014, 161, H722-H724.	1.3	24

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37	Durability Testing of Photoelectrochemical Hydrogen Production under Day/Night Light Cycled Conditions. ChemElectroChem, 2019, 6, 106-109.	1.7	24
38	Tailoring Mixed-Halide, Wide-Gap Perovskites via Multistep Conversion Process. ACS Applied Materials & Interfaces, 2016, 8, 14301-14306.	4.0	23
39	Wide Band Gap Cu₂SrSnS₄ Solar Cells from Oxide Precursors. ACS Applied Energy Materials, 2019, 2, 7340-7344.	2.5	23
40	Fast and sensitive method for detecting volatile species in liquids. Review of Scientific Instruments, 2015, 86, 075006.	0.6	22
41	Backâ€Illuminated Siâ€Based Photoanode with Nickel Cobalt Oxide Catalytic Protection Layer. ChemElectroChem, 2016, 3, 1546-1552.	1.7	22
42	A Flexible Webâ€Based Approach to Modeling Tandem Photocatalytic Devices. Solar Rrl, 2017, 1, e201600013.	3.1	22
43	Note: Anodic bonding with cooling of heat-sensitive areas. Review of Scientific Instruments, 2010, 81, 016111.	0.6	21
44	Semitransparent Selenium Solar Cells as a Top Cell for Tandem Photovoltaics. Solar Rrl, 2021, 5, 2100111.	3.1	20
45	Oxygen-Enhanced Chemical Stability of Lithium-Mediated Electrochemical Ammonia Synthesis. Journal of Physical Chemistry Letters, 2022, 13, 4605-4611.	2.1	18
46	Controlled Directional Growth of TiO[sub 2] Nanotubes. Journal of the Electrochemical Society, 2010, 157, E69.	1.3	15
47	Anodic molecular hydrogen formation on Ru and Cu electrodes. Catalysis Science and Technology, 2020, 10, 6870-6878.	2.1	15
48	Selenium Thin-Film Solar Cells with Cadmium Sulfide as a Heterojunction Partner. ACS Applied Energy Materials, 2021, 4, 10697-10702.	2.5	15
49	TaS₂ Back Contact Improving Oxide-Converted Cu₂BaSnS₄ Solar Cells. ACS Applied Energy Materials, 2020, 3, 1190-1198.	2.5	13
50	Experimental and First-Principles Spectroscopy of Cu₂SrSnS₄ and Cu₂BaSnS₄ Photoabsorbers. ACS Applied Materials & Interfaces, 2020, 12, 50446-50454.	4.0	13
51	Photocatalysis: HI-time for perovskites. Nature Energy, 2017, 2, .	19.8	9
52	Quantitative Operando Detection of Electro Synthesized Ammonia Using Mass Spectrometry. ChemElectroChem, 2022, 9, .	1.7	9
53	A quick look at how photoelectrodes work. Science, 2015, 350, 1030-1031.	6.0	8
54	Dynamic Interfacial Reaction Rates from Electrochemistryâ€“Mass Spectrometry. Analytical Chemistry, 2021, 93, 7022-7028.	3.2	5

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55	Bio-inspired co-catalysts bonded to a silicon photocathode for solar hydrogen evolution. , 2011, , .		1