Shane Ardo

List of Publications by Year in Descending Order

65 papers	4,725 citations	29 h-index	68 g-index
70 ext. papers	5,269 ext. citations	15.6 avg, IF	5.87 L-index

#	Paper	IF	Citations
65	Predicting Solar Cell Performance from Terahertz and Microwave Spectroscopy. *Advanced Energy Materials*, **2022**, 12, 2102776	21.8	5
64	Reconciliation of Differences in Apparent Diffusion Coefficients Measured for Self-Exchange Electron Transfer between Molecules Anchored to Mesoporous Titanium Dioxide Thin Films. *ACS Applied Materials & Interfaces*, **2021**, 13, 41396-41404	9.5	1
63	Reinvigorating electrochemistry education. *IScience*, **2021**, 24, 102481	6.1	2
62	Tunneling based ten attomolar DNA biosensor. *AIP Advances*, **2021**, 11, 065226	1.5	
61	Potentially Confusing: Potentials in Electrochemistry. *ACS Energy Letters*, **2021**, 6, 261-266	20.1	25
60	Turning water into a protonic diode and solar cell via doping and dye sensitization. *Joule*, **2021**, 5, 2380-2398	27.8	2
59	Clarification of mechanisms of protonic photovoltaic action initiated by photoexcitation of strong photoacids covalently bound to hydrated Nafion cation-exchange membranes wetted by aqueous electrolytes. *Energy and Environmental Science*, **2021**, 14, 4961-4978	35.4	1
58	Numerical Monte Carlo Simulations to Evaluate the Influence That Spherical Nanoparticle Size and Arrangement Have on Interparticle Charge Transport across the Surface of Dye- and Cocatalyst-Modified Materials. *ACS Applied Energy Materials*, **2020**, 3, 4699-4707	6.1	1
57	Low Overpotential and Stable Electrocatalytic Oxygen Evolution Reaction Utilizing Doped Perovskite Oxide, La0.7Sr0.3MnO3, Modified by Cobalt Phosphate. *ACS Applied Energy Materials*, **2020**, 3, 1279-1285	6.1	14
56	An Electrochemical Neutralization Cell for Spontaneous Water Desalination. *Joule*, **2020**, 4, 1730-1742	27.8	16
55	Photoacid-Modified Nafion Membrane Morphology Determined by Resonant X-ray Scattering and Spectroscopy. *ACS Macro Letters*, **2019**, 8, 1353-1359	6.6	6
54	Calculations of theoretical efficiencies for electrochemically-mediated tandem solar water splitting as a function of bandgap energies and redox shuttle potential. *Energy and Environmental Science*, **2019**, 12, 261-272	35.4	15
53	Demonstration of Photovoltaic Action and Enhanced Stability from a Quasi-Two-Dimensional Hybrid Organic□Inorganic Copper□Halide Material Incorporating Divalent Organic Groups. *ACS Applied Energy Materials*, **2019**, 2, 2178-2187	6.1	3
52	Influence of One Specific Carbon□Carbon Bond on the Quality, Stability, and Photovoltaic Performance of Hybrid Organic□Inorganic Bismuth Iodide Materials. *ACS Applied Energy Materials*, **2019**, 2, 1579-1587	6.1	4
51	5-Methoxyquinoline Photobasicity Is Mediated by Water Oxidation. *Journal of Physical Chemistry A*, **2019**, 123, 6645-6651	2.8	10
50	Interfacial and Nanoconfinement Effects Decrease the Excited-State Acidity of Polymer-Bound Photoacids. *CheM*, **2019**, 5, 1648-1670	16.2	14
49	Enhanced Stability and Efficiency for Photoelectrochemical Iodide Oxidation by Methyl Termination and Electrochemical Pt Deposition on n-Type Si Microwire Arrays. *ACS Energy Letters*, **2019**, 4, 2308-2314	20.1	4

48	Evaluation of the role that photoacid excited-state acidity has on photovoltage and photocurrent of dye-sensitized ion-exchange membranes **2019**,		1
47	Numerical Monte Carlo simulations of charge transport across the surface of dye and cocatalyst modified spherical nanoparticles under conditions of pulsed or continuous illumination. *Sustainable Energy and Fuels*, **2019**, 3, 1573-1587	5.8	1
46	Combined Experimental and Theoretical Insights into the Synergistic Effect of Cerium Doping and Oxygen Vacancies in BaZrO3 Hollow Nanospheres for Efficient Photocatalytic Hydrogen Production. *Journal of Physical Chemistry C*, **2019**, 123, 233-249	3.8	6
45	Curtailing Perovskite Processing Limitations via Lamination at the Perovskite/Perovskite Interface. *ACS Energy Letters*, **2018**, 3, 1192-1197	20.1	17
44	Interfacial Electron Transfer of Ferrocene Immobilized onto Indium Tin Oxide through Covalent and Noncovalent Interactions. *ACS Applied Materials & Interfaces*, **2018**, 10, 13211-13217	9.5	24
43	Hybrid of g-C3N4 and MoS2 Integrated onto Cd0.5Zn0.5S: Rational Design with Efficient Charge Transfer for Enhanced Photocatalytic Activity. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 6718-6729	8.3	41
42	Evaluating particle-suspension reactor designs for Z-scheme solar water splitting via transport and kinetic modeling. *Energy and Environmental Science*, **2018**, 11, 115-135	35.4	59
41	Pathways to electrochemical solar-hydrogen technologies. *Energy and Environmental Science*, **2018**, 11, 2768-2783	35.4	165
40	Direct observation of sequential oxidations of a titania-bound molecular proxy catalyst generated through illumination of molecular sensitizers. *Nature Chemistry*, **2018**, 10, 17-23	17.6	40
39	Conversion of Visible Light into Ionic Power Using Photoacid-Dye-Sensitized Bipolar Ion-Exchange Membranes. *Joule*, **2018**, 2, 94-109	27.8	41
38	The role of lithium cations on the photochemistry of ruthenium complexes in dye-sensitized solar cells: A TDDFT study with the BCL model. *Journal of Photochemistry and Photobiology A: Chemistry*, **2018**, 364, 510-515	4.7	4
37	Observation of Photovoltaic Action from Photoacid-Modified Nafion Due to Light-Driven Ion Transport. *Journal of the American Chemical Society*, **2017**, 139, 11726-11733	16.4	44
36	Investigating Saltwater Desalination by Electrodialysis and Curriculum Extensions To Introduce Students to the Chemical Physics of Polymeric Ion-Exchange Membranes. *Journal of Chemical Education*, **2017**, 94, 1733-1737	2.4	2
35	Ionic Processes in Water Electrolysis: The Role of Ion-Selective Membranes. *ACS Energy Letters*, **2017**, 2, 2625-2634	20.1	49
34	A scanning probe investigation of the role of surface motifs in the behavior of p-WSe2 photocathodes. *Energy and Environmental Science*, **2016**, 9, 164-175	35.4	27
33	Modellierung, Simulation und Implementierung von Zellen f die solargetriebene Wasserspaltung. *Angewandte Chemie*, **2016**, 128, 13168-13183	3.6	7
32	Modeling, Simulation, and Implementation of Solar-Driven Water-Splitting Devices. *Angewandte Chemie - International Edition*, **2016**, 55, 12974-12988	16.4	86
31	Communication Electrochemical Characterization of Commercial Bipolar Membranes under Electrolyte Conditions Relevant to Solar Fuels Technologies. *Journal of the Electrochemical Society*, **2016**, 163, H3132-H3134	3.9	37

30	Hybrid organic–inorganic solar cells based on bismuth iodide and 1,6-hexanediammonium dication. *Journal of Materials Chemistry A*, **2016**, 4, 6837-6841	13	82
29	Particle suspension reactors and materials for solar-driven water splitting. *Energy and Environmental Science*, **2015**, 8, 2825-2850	35.4	256
28	Experimental demonstrations of spontaneous, solar-driven photoelectrochemical water splitting. *Energy and Environmental Science*, **2015**, 8, 2811-2824	35.4	411
27	Unassisted solar-driven photoelectrosynthetic HI splitting using membrane-embedded Si microwire arrays. *Energy and Environmental Science*, **2015**, 8, 1484-1492	35.4	32
26	Measurement of the Electrical Resistance of n-Type Si Microwire/p-Type Conducting Polymer Junctions for Use in Artificial Photosynthesis. *Journal of Physical Chemistry C*, **2014**, 118, 27742-27748	3.8	9
25	Use of bipolar membranes for maintaining steady-state pH gradients in membrane-supported, solar-driven water splitting. *ChemSusChem*, **2014**, 7, 3021-7	8.3	87
24	Photoelectrochemistry of core–shell tandem junction n$^+$p$^+$-Si/n-WO3 microwire array photoelectrodes. *Energy and Environmental Science*, **2014**, 7, 779-790	35.4	135
23	Challenges and Opportunities for Ion-Exchange Membranes in Solar Fuels Devices. *Reviews in Advanced Sciences and Engineering*, **2014**, 3, 277-287		7
22	The Solar Army: A Case Study in Outreach Based on Solar Photoelectrochemistry. *Reviews in Advanced Sciences and Engineering*, **2014**, 3, 288-303		5
21	Charge-Screening Kinetics at Sensitized TiO2 Interfaces. *Journal of Physical Chemistry Letters*, **2013**, 4, 2817-2821	6.4	33
20	Photoelectrochemical behavior of n-type Si(111) electrodes coated with a single layer of graphene. *Journal of the American Chemical Society*, **2013**, 135, 17246-9	16.4	51
19	Technical and economic feasibility of centralized facilities for solar hydrogen production via photocatalysis and photoelectrochemistry. *Energy and Environmental Science*, **2013**, 6, 1983	35.4	868
18	Modeling, simulation, and design criteria for photoelectrochemical water-splitting systems. *Energy and Environmental Science*, **2012**, 5, 9922	35.4	232
17	Comparison between the electrical junction properties of H-terminated and methyl-terminated individual Si microwire/polymer assemblies for photoelectrochemical fuel production. *Energy and Environmental Science*, **2012**, 5, 9789	35.4	18
16	Photocatalytic Hydrogen Production at Titania-Supported Pt Nanoclusters That Are Derived from Surface-Anchored Molecular Precursors. *Journal of Physical Chemistry C*, **2012**, 116, 1429-1438	3.8	30
15	Increase in the coordination number of a cobalt porphyrin after photo-induced interfacial electron transfer into nanocrystalline TiO2. *Inorganic Chemistry*, **2012**, 51, 9865-72	5.1	8
14	Characterization of photoinduced self-exchange reactions at molecule-semiconductor interfaces by transient polarization spectroscopy: lateral intermolecular energy and hole transfer across sensitized TiO2 thin films. *Journal of the American Chemical Society*, **2011**, 133, 15384-96	16.4	58
13	Non-Nernstian two-electron transfer photocatalysis at metalloporphyrin-TiO2 interfaces. *Journal of the American Chemical Society*, **2011**, 133, 16572-80	16.4	65

12	Charge Recombination to Oxidized Iodide in Dye-Sensitized Solar Cells. *Journal of Physical Chemistry C*, **2011**, 115, 20316-20325	3.8	20
11	Sensitization of TiO2 by the MLCT Excited State of CoI Coordination Compounds. *Journal of Physical Chemistry Letters*, **2011**, 2, 305-308	6.4	13
10	Iodide Chemistry in Dye-Sensitized Solar Cells: Making and Breaking I□Bonds for Solar Energy Conversion. *Journal of Physical Chemistry Letters*, **2010**, 1, 3132-3140	6.4	133
9	Decreased Interfacial Charge Recombination Rate Constants with N3-Type Sensitizers. *Journal of Physical Chemistry Letters*, **2010**, 1, 1725-1728	6.4	35
8	Stark effects after excited-state interfacial electron transfer at sensitized TiO(2) nanocrystallites. *Journal of the American Chemical Society*, **2010**, 132, 6696-709	16.4	162
7	Reaction of Ru(II) diazafluorenone compound with nanocrystalline TiO2 thin film. *Inorganic Chemistry*, **2010**, 49, 7726-34	5.1	8
6	Excited-state electron transfer from ruthenium-polypyridyl compounds to anatase TiO2 nanocrystallites: evidence for a Stark effect. *Journal of Physical Chemistry B*, **2010**, 114, 14596-604	3.4	67
5	Direct observation of photodriven intermolecular hole transfer across TiO2 nanocrystallites: lateral self-exchange reactions and catalyst oxidation. *Journal of the American Chemical Society*, **2010**, 132, 9283-5	16.4	52
4	Photoinduced electron transfer from Ru am(m)ine compounds with low-lying ligand field excited states to nanocrystalline TiO2. *Journal of Photochemistry and Photobiology A: Chemistry*, **2010**, 216, 94-103	4.7	7
3	Photodriven heterogeneous charge transfer with transition-metal compounds anchored to TiO2 semiconductor surfaces. *Chemical Society Reviews*, **2009**, 38, 115-64	58.5	987
2	Photodriven spin change of Fe(II) benzimidazole compounds anchored to nanocrystalline TiO(2) thin films. *Langmuir*, **2009**, 25, 13641-52	4	24
1	Slow cation transfer follows sensitizer regeneration at anatase TiO2 interfaces. *Journal of the American Chemical Society*, **2008**, 130, 11586-7	16.4	52