Fiona J Beck

List of Publications by Year
in descending order

44 papers	2,529 citations	279487 23 h-index	253896 43 g-index
44 all docs	44 docs citations	44 times ranked	3062 citing authors

#	Article	IF	Citations
1	â€˜Cleanâ€™ hydrogen? â€“ Comparing the emissions and costs of fossil fuel versus renewable electricity based hydrogen. Applied Energy, 2022, 306, 118145.	5.1	100
2	Global emissions implications from co-combusting ammonia in coal fired power stations: An analysis of the Japan-Australia supply chain. Journal of Cleaner Production, 2022, 336, 130092.	4.6	21
3	Direct solar to hydrogen conversion enabled by silicon photocathodes with carrier selective passivated contacts. Sustainable Energy and Fuels, 2022, 6, 349-360.	2.5	3
4	Unconventional direct synthesis of Ni₃N/Ni with N-vacancies for efficient and stable hydrogen evolution. Energy and Environmental Science, 2022, 15, 185-195.	15.6	44
5	Contributing to regional decarbonization: Australia's potential to supply zero-carbon commodities to the Asia-Pacific. Energy, 2022, 248, 123563.	4.5	20
6	Investigation of the mechanisms of plasmon-mediated photocatalysis: synergistic contribution of near-field and charge transfer effects. Journal of Materials Chemistry C, 2022, 10, 7511-7524.	2.7	13
7	Recognizing the role of uncertainties in the transition to renewable hydrogen. International Journal of Hydrogen Energy, 2022, 47, 27896-27910.	3.8	12
8	The Importance of Schottky Barrier Height in Plasmonically Enhanced Hotâ€Electron Devices. Advanced Optical Materials, 2021, 9, 2001121.	3.6	7
9	Quantifying and Comparing Fundamental Loss Mechanisms to Enable Solarâ€toâ€Hydrogen Conversion Efficiencies above 20% Using Perovskiteâ€"Silicon Tandem Absorbers. Advanced Energy and Sustainability Research, 2021, 2, 2000039.	2.8	5
10	Towards emissions certification systems for international trade in hydrogen: The policy challenge of defining boundaries for emissions accounting. Energy, 2021, 215, 119139.	4.5	24
11	Direct Solar Hydrogen Generation at 20% Efficiency Using Lowâ€Cost Materials. Advanced Energy Materials, 2021, 11, 2101053.	10.2	35
12	Ultrathin HfO2 passivated silicon photocathodes for efficient alkaline water splitting. Applied Physics Letters, 2021, 119, .	1.5	5
13	Solar Water Splitting: Over 17% Efficiency Standâ€Alone Solar Water Splitting Enabled by Perovskiteâ€Silicon Tandem Absorbers (Adv. Energy Mater. 28/2020). Advanced Energy Materials, 2020, 10, 2070122.	10.2	4
14	Over 17% Efficiency Standâ€Alone Solar Water Splitting Enabled by Perovskiteâ€Silicon Tandem Absorbers. Advanced Energy Materials, 2020, 10, 2000772.	10.2	58
15	Rational Integration of Photovoltaics for Solar Hydrogen Generation. ACS Applied Energy Materials, 2019, 2, 6395-6403.	2.5	13
16	The two faces of capacitance: New interpretations for electrical impedance measurements of perovskite solar cells and their relation to hysteresis. Journal of Applied Physics, 2018, 124, .	1.1	110
17	Hysteresis phenomena in perovskite solar cells: the many and varied effects of ionic accumulation. Physical Chemistry Chemical Physics, 2017, 19, 3094-3103.	1.3	159
18	Diffuse reflectors for improving light management in solar cells: a review and outlook. Journal of Optics (United Kingdom), 2017, 19, 014001.	1.0	13

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19	A re-evaluation of transparent conductor requirements for thin-film solar cells. Journal of Materials Chemistry A, 2016, 4, 4490-4496.	5.2	42
20	Understanding light trapping by resonant coupling to guided modes and the importance of the mode profile. Optics Express, 2016, 24, 759.	1.7	3
21	Photoluminescence study of time- and spatial-dependent light induced trap de-activation in CH₃NH₃PbI₃ perovskite films. Physical Chemistry Chemical Physics, 2016, 18, 22557-22564.	1.3	36
22	Imprinted Electrodes for Enhanced Light Trapping in Solution Processed Solar Cells. Advanced Materials, 2014, 26, 443-448.	11.1	40
23	Surface Plasmon Polariton Couplers for Light Trapping in Thin-Film Absorbers and Their Application to Colloidal Quantum Dot Optoelectronics. ACS Photonics, 2014, 1, 1197-1205.	3.2	26
24	Plasmonic Schottky Nanojunctions for Tailoring the Photogeneration Profile in Thin Film Solar Cells. Advanced Optical Materials, 2014, 2, 493-500.	3.6	10
25	Electrical effects of metal nanoparticles embedded in ultra-thin colloidal quantum dot films. Applied Physics Letters, 2012, 101, 041103.	1.5	19
26	Plasmonic light trapping leads to responsivity increase in colloidal quantum dot photodetectors. Applied Physics Letters, 2012, 100, .	1.5	52
27	Combined plasmonic and dielectric rear reflectors for enhanced photocurrent in solar cells. Applied Physics Letters, 2012, 100, .	1.5	34
28	Enhanced light trapping in solar cells using snow globe coating. Progress in Photovoltaics: Research and Applications, 2012, 20, 837-842.	4.4	18
29	Resonant nano-antennas for light trapping in plasmonic solar cells. Journal Physics D: Applied Physics, 2011, 44, 185101.	1.3	61
30	Resonant SPP modes supported by discrete metal nanoparticles on high-index substrates. Optics Express, 2011, 19, A146.	1.7	65
31	Absorption Enhancement in Solution Processed Metal-Semiconductor Nanocomposites. Optics Express, 2011, 19, 21038.	1.7	24
32	Light trapping with plasmonic particles: beyond the dipole model. Optics Express, 2011, 19, 25230.	1.7	70
33	The effect of dielectric spacer thickness on surface plasmon enhanced solar cells for front and rear side depositions. Journal of Applied Physics, 2011, 109, .	1.1	125
34	Comparing nanowire, multijunction, and single junction solar cells in the presence of light trapping. Journal of Applied Physics, 2011, 109, .	1.1	27
35	Analytical approach for design of blazed dielectric gratings for light trapping in solar cells. Journal Physics D: Applied Physics, 2011, 44, 055103.	1.3	11
36	Plasmonics and nanophotonics for photovoltaics. MRS Bulletin, 2011, 36, 461-467.	1.7	108

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37	Plasmonic lightâ€trapping for Si solar cells using selfâ€assembled, Ag nanoparticles. Progress in Photovoltaics: Research and Applications, 2010, 18, 500-504.	4.4	114
38	Effective light trapping in polycrystalline silicon thin-film solar cells by means of rear localized surface plasmons. Applied Physics Letters, 2010, 96, .	1.5	128
39	Asymmetry in photocurrent enhancement by plasmonic nanoparticle arrays located on the front or on the rear of solar cells. Applied Physics Letters, 2010, 96, .	1.5	153
40	Tunable light trapping for solar cells using localized surface plasmons. Journal of Applied Physics, 2009, 105, .	1.1	476
41	Designing periodic arrays of metal nanoparticles for light-trapping applications in solar cells. Applied Physics Letters, 2009, 95, .	1.5	214
42	Red-shifting the surface plasmon resonance of silver nanoparticles for light trapping in solar cells. Materials Research Society Symposia Proceedings, 2008, 1101, 1.	0.1	3
43	Optically controlled grippers for manipulating micron-sized particles. New Journal of Physics, 2007, 9, 14-14.	1.2	24
44	An optical trapped nanohand for manipulating micron-sized particles. , 2006, , .		0