Emily L Warren

List of Publications by Citations

54 papers	11,243 citations	19 h-index	75 g-index
75 ext. papers	12,122 ext. citations	13.8 avg, IF	5.92 L-index

#	Paper	IF	Citations
54	Solar water splitting cells. *Chemical Reviews*, **2010**, 110, 6446-73	68.1	7335
53	Enhanced absorption and carrier collection in Si wire arrays for photovoltaic applications. *Nature Materials*, **2010**, 9, 239-44	27	910
52	Photoelectrochemical hydrogen evolution using Si microwire arrays. *Journal of the American Chemical Society*, **2011**, 133, 1216-9	16.4	515
51	Energy-conversion properties of vapor-liquid-solid-grown silicon wire-array photocathodes. *Science*, **2010**, 327, 185-7	33.3	460
50	Evaluation of Pt, Ni, and Ni–Mo electrocatalysts for hydrogen evolution on crystalline Si electrodes. *Energy and Environmental Science*, **2011**, 4, 3573	35.4	405
49	Si microwire-array solar cells. *Energy and Environmental Science*, **2010**, 3, 1037	35.4	199
48	Hydrogen-evolution characteristics of Ni–Mo-coated, radial junction, n+p-silicon microwire array photocathodes. *Energy and Environmental Science*, **2012**, 5, 9653	35.4	178
47	Silicon Microwire Arrays for Solar Energy-Conversion Applications. *Journal of Physical Chemistry C*, **2014**, 118, 747-759	3.8	76
46	pH-Independent, 520 mV Open-Circuit Voltages of Si/Methyl Viologen2+/+ Contacts Through Use of Radial n+p-Si Junction Microwire Array Photoelectrodes. *Journal of Physical Chemistry C*, **2011**, 115, 594-598	3.8	47
45	Ray optical light trapping in silicon microwires: exceeding the 2n(2) intensity limit. *Optics Express*, **2011**, 19, 3316-31	3.3	46
44	Maximizing tandem solar cell power extraction using a three-terminal design. *Sustainable Energy and Fuels*, **2018**, 2, 1141-1147	5.8	44
43	Solar energy conversion properties and defect physics of ZnSiP2. *Energy and Environmental Science*, **2016**, 9, 1031-1041	35.4	38
42	Growth of antiphase-domain-free GaP on Si substrates by metalorganic chemical vapor deposition using an in situ AsH3 surface preparation. *Applied Physics Letters*, **2015**, 107, 082109	3.4	36
41	Unassisted solar-driven photoelectrosynthetic HI splitting using membrane-embedded Si microwire arrays. *Energy and Environmental Science*, **2015**, 8, 1484-1492	35.4	32
40	Three-terminal III–V/Si tandem solar cells enabled by a transparent conductive adhesive. *Sustainable Energy and Fuels*, **2020**, 4, 549-558	5.8	28
39	A Taxonomy for Three-Terminal Tandem Solar Cells. *ACS Energy Letters*, **2020**, 5, 1233-1242	20.1	26
38	Back-contacted bottom cells with three terminals: Maximizing power extraction from current-mismatched tandem cells. *Progress in Photovoltaics: Research and Applications*, **2019**, 27, 410-423	6.8	22

37	Equivalent Performance in Three-Terminal and Four-Terminal Tandem Solar Cells. *IEEE Journal of Photovoltaics*, **2018**, 8, 1584-1589	3.7	21
36	Wafer-Scale Growth of Silicon Microwire Arrays for Photovoltaics and Solar Fuel Generation. *IEEE Journal of Photovoltaics*, **2012**, 2, 294-297	3.7	15
35	Transparent Conductive Adhesives for Tandem Solar Cells Using Polymer-Particle Composites. *ACS Applied Materials & Interfaces*, **2018**, 10, 8086-8091	9.5	14
34	Perspective: Fundamentals of coalescence-related dislocations, applied to selective-area growth and other epitaxial films. *APL Materials*, **2018**, 6, 120903	5.7	14
33	Comparison between the measured and modeled hydrogen-evolution activity of Ni- or Pt-coated silicon photocathodes. *International Journal of Hydrogen Energy*, **2014**, 39, 16220-16226	6.7	13
32	. *IEEE Journal of Photovoltaics*, **2018**, 8, 1635-1640	3.7	12
31	Toward Low-Cost 4-Terminal GaAs//Si Tandem Solar Cells. *ACS Applied Energy Materials*, **2019**, 2, 2375-2380	6.1	11
30	Photoelectrochemical water splitting: silicon photocathodes for hydrogen evolution **2010**,		8
29	Surfaces and interfaces governing the OMVPE growth of APD-free GaP on AsH3-cleaned vicinal Si(100). *Journal of Crystal Growth*, **2016**, 452, 235-239	1.6	7
28	Ordered silicon microwire arrays grown from substrates patterned using imprint lithography and electrodeposition. *ACS Applied Materials & Interfaces*, **2015**, 7, 1396-400	9.5	5
27	High-Throughput Experimental Study of Wurtzite Mn Zn O Alloys for Water Splitting Applications. *ACS Omega*, **2019**, 4, 7436-7447	3.9	4
26	High-Temperature Nucleation of GaP on V-Grooved Si. *Crystal Growth and Design*, **2020**, 20, 6745-6751	3.5	4
25	Homogenous Voltage-Matched Strings Using Three-Terminal Tandem Solar Cells: Fundamentals and End Losses. *IEEE Journal of Photovoltaics*, **2021**, 11, 1078-1086	3.7	4
24	Selective area growth of GaAs on Si patterned using nanoimprint lithography **2016**,		4
23	Development of High-Efficiency GaAs Solar Cells Grown on Nanopatterned GaAs Substrates. *Crystal Growth and Design*,	3.5	4
22	III- V/Si Tandem Cells Utilizing Interdigitated Back Contact Si Cells and Varying Terminal Configurations **2017**,		3
21	III-V-on-Si Tandem Solar Cells. *Joule*, **2021**, 5, 514-518	27.8	3
20	Optimization of four terminal rear heterojunction GaAs on Si interdigitated back contact tandem solar cells. *Applied Physics Letters*, **2021**, 118, 183902	3.4	3

19	Study of nickel silicide as a copper diffusion barrier in monocrystalline silicon solar cells **2016**,		3
18	Yield analysis and comparison of GaInP/Si and GaInP/GaAs multi-terminal tandem solar cells **2018**,		2
17	Single crystal growth and phase stability of photovoltaic grade ZnSiP2 by flux technique **2015**,		2
16	Investigation of GaP/Si heteroepitaxy on MOCVD prepared Si(100) surfaces **2015**,		2
15	Photoelectrochemical characterization of Si microwire array solar cells **2012**,		2
14	Using electron channeling contrast imaging to inform and improve the growth of high-efficiency GaAs solar cells on nanopatterned GaAs substrates. *Journal of Crystal Growth*, **2022**, 581, 126490	1.6	2
13	Design principles of tandem cascade photoelectrochemical devices. *Sustainable Energy and Fuels*,	5.8	2
12	Sonic Lift-off of GaAs-based Solar Cells with Reduced Surface Facets **2021**,		2
11	**2019**,		2
10	Application of templated vapor-liquid-solid growth to heteroepitaxy of InP on Si. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2021**, 39, 013404	2.9	2
9	Lamination of transparent conductive adhesives for tandem solar cell applications. *Journal Physics D: Applied Physics*, **2021**, 54, 184002	3	2
8	Enabling low-cost III-V/Si integration through nucleation of GaP on v-grooved Si substrates **2018**,		2
7	Operating principles of three-terminal solar cells **2018**,		2
6	Characterization of multiterminal tandem photovoltaic devices and their subcell coupling. *Cell Reports Physical Science*, **2021**, 2, 100677	6.1	2
5	Modeling three-terminal III- V lSi tandem solar cells **2017**,		1
4	III-V/Si tandem cell to module interconnection - comparison between different operation modes **2017**,		1
3	Fabrication, Measurement, and Modeling of GaInP/GaAs Three-Terminal Cells and Strings **2021**,		1
2	Energy conversion properties of ZnSiP2, a lattice-matched material for silicon-based tandem photovoltaics **2016**,		1

List of Publications

1 A simple physical model for three-terminal tandem cell operation **2019**, 1