

# Katherine T Fountaine

## List of Publications by Year in descending order

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Version: 2024-02-01

22  
papers

1,338  
citations

687363

13  
h-index

839539

18  
g-index

22  
all docs

22  
docs citations

22  
times ranked

2339  
citing authors

#	ARTICLE	IF	CITATIONS
1	High Broadband Light Transmission for Solar Fuels Production Using Dielectric Optical Waveguides in TiO <sub>2</sub> Nanocone Arrays. <i>Nano Letters</i> , 2020, 20, 502-508.	9.1	14
2	Array-Level Inverse Design of Beam Steering Active Metasurfaces. <i>ACS Nano</i> , 2020, 14, 15042-15055.	14.6	50
3	Advancing semiconductor electrocatalyst systems: application of surface transformation films and nanosphere lithography. <i>Faraday Discussions</i> , 2018, 208, 523-535.	3.2	2
4	Efficient solar hydrogen generation in microgravity environment. <i>Nature Communications</i> , 2018, 9, 2527.	12.8	45
5	Experimental Demonstration of $\pm 230^\circ$ Phase Modulation in Gate-Tunable Graphene-Gold Reconfigurable Mid-Infrared Metasurfaces. <i>Nano Letters</i> , 2017, 17, 3027-3034.	9.1	267
6	Photon and carrier management design for nonplanar thin-film copper indium gallium selenide photovoltaics. <i>Solar Energy Materials and Solar Cells</i> , 2017, 161, 149-156.	6.2	6
7	Efficiency limits for photoelectrochemical water-splitting. <i>Nature Communications</i> , 2016, 7, 13706.	12.8	218
8	Scalable, epitaxy-free fabrication of super-absorbing sparse III-V nanowire arrays for photovoltaic applications (Conference Presentation). , 2016, , .		0
9	Absorption enhancing and passivating non-planar thin-film device architectures for copper indium gallium selenide photovoltaics. , 2016, , .		0
10	Near-Unity Unselective Absorption in Sparse InP Nanowire Arrays. <i>ACS Photonics</i> , 2016, 3, 1826-1832.	6.6	81
11	Enhanced Absorption and $\sim 1\%$ Spectrum-and-Angle-Averaged Reflection in Tapered Microwire Arrays. <i>ACS Photonics</i> , 2016, 3, 1854-1861.	6.6	24
12	Modellierung, Simulation und Implementierung von Zellen für die solarbetriebene Wasserspaltung. <i>Angewandte Chemie</i> , 2016, 128, 13168-13183.	2.0	10
13	Modeling, Simulation, and Implementation of Solar-Driven Water-Splitting Devices. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 12974-12988.	13.8	119
14	Mesoscale modeling of photoelectrochemical devices: light absorption and carrier collection in monolithic, tandem, Si WO <sub>3</sub> microwires. <i>Optics Express</i> , 2014, 22, A1453.	3.4	11
15	Near-unity broadband absorption designs for semiconducting nanowire arrays via localized radial mode excitation. <i>Optics Express</i> , 2014, 22, A930.	3.4	94
16	Interplay of light transmission and catalytic exchange current in photoelectrochemical systems. <i>Applied Physics Letters</i> , 2014, 105, 173901.	3.3	13
17	Resonant absorption in semiconductor nanowires and nanowire arrays: Relating leaky waveguide modes to Bloch photonic crystal modes. <i>Journal of Applied Physics</i> , 2014, 116, .	2.5	100
18	Achieving near-unity broadband absorption in sparse arrays of GaAs NWs via a fundamental understanding of localized radial modes. , 2014, , .		1

#	ARTICLE	IF	CITATIONS
19	Photoelectrochemistry of core-shell tandem junction $n^+p^+ - Si/n - WO_3$ microwire array photoelectrodes. Energy and Environmental Science, 2014, 7, 779-790.	30.8	152
20	Optical, electrical, and solar energy-conversion properties of gallium arsenide nanowire-array photoanodes. Energy and Environmental Science, 2013, 6, 1879.	30.8	102
21	Current-voltage characteristics of coupled photodiode-electrocatalyst devices. Applied Physics Letters, 2013, 103, .	3.3	29
22	Optical Design for Broadband Super-Absorption in Sparse Arrays of III-V Nanowire Arrays for Photoelectrochemical and Photovoltaic Applications. , 2013, , .		0