

# Mark Hettick

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

48 papers	4,269 citations	32 h-index	50 g-index
50 ext. papers	4,993 ext. citations	14.3 avg, IF	5.15 L-index

#	Paper	IF	Citations
48	Field-effect transistors built from all two-dimensional material components. <i>ACS Nano</i> , <b>2014</b> , 8, 6259-64	16.7	496
47	Efficient silicon solar cells with dopant-free asymmetric heterocontacts. <i>Nature Energy</i> , <b>2016</b> , 1,	62.3	351
46	High-gain inverters based on WSe <sub>2</sub> complementary field-effect transistors. <i>ACS Nano</i> , <b>2014</b> , 8, 4948-53	16.7	249
45	Photoactuators and motors based on carbon nanotubes with selective chirality distributions. <i>Nature Communications</i> , <b>2014</b> , 5, 2983	17.4	223
44	Gold-Mediated Exfoliation of Ultralarge Optoelectronically-Perfect Monolayers. <i>Advanced Materials</i> , <b>2016</b> , 28, 4053-8	24	206
43	Air stable p-doping of WSe <sub>2</sub> by covalent functionalization. <i>ACS Nano</i> , <b>2014</b> , 8, 10808-14	16.7	180
42	Efficient and sustained photoelectrochemical water oxidation by cobalt oxide/silicon photoanodes with nanotextured interfaces. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 6191-4	16.4	171
41	Roll-to-Roll Gravure Printed Electrochemical Sensors for Wearable and Medical Devices. <i>ACS Nano</i> , <b>2018</b> , 12, 6978-6987	16.7	163
40	Reactive Sputtering of Bismuth Vanadate Photoanodes for Solar Water Splitting. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 21635-21642	3.8	140
39	Magnesium Fluoride Electron-Selective Contacts for Crystalline Silicon Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 14671-7	9.5	134
38	Amorphous Si thin film based photocathodes with high photovoltage for efficient hydrogen production. <i>Nano Letters</i> , <b>2013</b> , 13, 5615-8	11.5	134
37	Stable Dopant-Free Asymmetric Heterocontact Silicon Solar Cells with Efficiencies above 20%. <i>ACS Energy Letters</i> , <b>2018</b> , 3, 508-513	20.1	115
36	Conductive and Stable Magnesium Oxide Electron-Selective Contacts for Efficient Silicon Solar Cells. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1601863	21.8	114
35	Role of TiO <sub>2</sub> Surface Passivation on Improving the Performance of p-InP Photocathodes. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 2308-2313	3.8	109
34	Efficient solar-driven electrochemical CO <sub>2</sub> reduction to hydrocarbons and oxygenates. <i>Energy and Environmental Science</i> , <b>2017</b> , 10, 2222-2230	35.4	104
33	Room temperature multiplexed gas sensing using chemical-sensitive 3.5-nm-thin silicon transistors. <i>Science Advances</i> , <b>2017</b> , 3, e1602557	14.3	98
32	Lithium Fluoride Based Electron Contacts for High Efficiency n-Type Crystalline Silicon Solar Cells. <i>Advanced Energy Materials</i> , <b>2016</b> , 6, 1600241	21.8	95

31	19.2% Efficient InP Heterojunction Solar Cell with Electron-Selective TiO Contact. <i>ACS Photonics</i> , <b>2014</b> , 1, 1245-1250	6.3	93
30	General Thermal Texturization Process of MoS <sub>2</sub> for Efficient Electrocatalytic Hydrogen Evolution Reaction. <i>Nano Letters</i> , <b>2016</b> , 16, 4047-53	11.5	84
29	Tantalum Oxide Electron-Selective Heterocontacts for Silicon Photovoltaics and Photoelectrochemical Water Reduction. <i>ACS Energy Letters</i> , <b>2018</b> , 3, 125-131	20.1	83
28	Chemical Bath Deposition of p-Type Transparent, Highly Conducting (CuS) <sub>x</sub> :(ZnS) <sub>1-x</sub> Nanocomposite Thin Films and Fabrication of Si Heterojunction Solar Cells. <i>Nano Letters</i> , <b>2016</b> , 16, 1925-32	11.5	77
27	Wearable Sweat Band for Noninvasive Levodopa Monitoring. <i>Nano Letters</i> , <b>2019</b> , 19, 6346-6351	11.5	73
26	Monolithic 3D CMOS Using Layered Semiconductors. <i>Advanced Materials</i> , <b>2016</b> , 28, 2547-54	24	72
25	BiVO <sub>4</sub> thin film photoanodes grown by chemical vapor deposition. <i>Physical Chemistry Chemical Physics</i> , <b>2014</b> , 16, 1651-7	3.6	68
24	Artificial Photosynthesis on TiO <sub>2</sub> -Passivated InP Nanopillars. <i>Nano Letters</i> , <b>2015</b> , 15, 6177-81	11.5	67
23	Air stable n-doping of WSe <sub>2</sub> by silicon nitride thin films with tunable fixed charge density. <i>APL Materials</i> , <b>2014</b> , 2, 092504	5.7	63
22	Evaporated tellurium thin films for p-type field-effect transistors and circuits. <i>Nature Nanotechnology</i> , <b>2020</b> , 15, 53-58	28.7	63
21	Dopant-Free Partial Rear Contacts Enabling 23% Silicon Solar Cells. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1803367	21.8	47
20	Electron-Selective TiO <sub>2</sub> Contact for Cu(In,Ga)Se <sub>2</sub> Solar Cells. <i>Scientific Reports</i> , <b>2015</b> , 5, 16028	4.9	43
19	Enhanced Photocatalytic Reduction of CO <sub>2</sub> to CO through TiO <sub>2</sub> Passivation of InP in Ionic Liquids. <i>Chemistry - A European Journal</i> , <b>2015</b> , 21, 13502-7	4.8	41
18	Direct growth of single-crystalline III-V semiconductors on amorphous substrates. <i>Nature Communications</i> , <b>2016</b> , 7, 10502	17.4	37
17	Superacid Passivation of Crystalline Silicon Surfaces. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 24205-11	9.5	32
16	Nonepitaxial Thin-Film InP for Scalable and Efficient Photocathodes. <i>Journal of Physical Chemistry Letters</i> , <b>2015</b> , 6, 2177-82	6.4	31
15	Deterministic Nucleation of InP on Metal Foils with the Thin-Film Vapor-Liquid-Solid Growth Mode. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 1340-1344	9.6	25
14	Temperature and Humidity Stable Alkali/Alkaline-Earth Metal Carbonates as Electron Heterocontacts for Silicon Photovoltaics. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1800743	21.8	25

13	Evaporated Se Te Thin Films with Tunable Bandgaps for Short-Wave Infrared Photodetectors. <i>Advanced Materials</i> , <b>2020</b> , 32, e2001329	24	22
12	Oriented Growth of Gold Nanowires on MoS <sub>2</sub> . <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 6257-6264	15.6	18
11	Nanoscale Junction Formation by Gas-Phase Monolayer Doping. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 20648-20655	9.5	17
10	Zirconium oxide surface passivation of crystalline silicon. <i>Applied Physics Letters</i> , <b>2018</b> , 112, 201604	3.4	17
9	Enhanced Near-Bandgap Response in InP Nanopillar Solar Cells. <i>Advanced Energy Materials</i> , <b>2014</b> , 4, 1400061	20.6	16
8	Morphological and spatial control of InP growth using closed-space sublimation. <i>Journal of Applied Physics</i> , <b>2012</b> , 112, 123102	2.5	15
7	Thin-Film Solar Cells with InP Absorber Layers Directly Grown on Nonepitaxial Metal Substrates. <i>Advanced Energy Materials</i> , <b>2015</b> , 5, 1501337	21.8	11
6	Integration of amorphous ferromagnetic oxides with multiferroic materials for room temperature magnetoelectric spintronics. <i>Scientific Reports</i> , <b>2020</b> , 10, 3583	4.9	10
5	Survey of dopant-free carrier-selective contacts for silicon solar cells <b>2016</b> ,		10
4	Increased Optoelectronic Quality and Uniformity of Hydrogenated p-InP Thin Films. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 4602-4607	9.6	9
3	InAs FinFETs Performance Enhancement by Superacid Surface Treatment. <i>IEEE Transactions on Electron Devices</i> , <b>2019</b> , 66, 1856-1861	2.9	6
2	Microchannel contacting of crystalline silicon solar cells. <i>Scientific Reports</i> , <b>2017</b> , 7, 9085	4.9	6
1	Shape-controlled single-crystal growth of InP at low temperatures down to 220 °C. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 902-906	11.5	6