Mark Hettick

List of Publications by Year
in descending order

50 papers	5,629 citations	126858 33 h-index	214721 47 g-index
50 all docs	50 docs citations	50 times ranked	9289 citing authors

#	Article	IF	Citations
1	Field-Effect Transistors Built from All Two-Dimensional Material Components. ACS Nano, 2014, 8, 6259-6264.	7.3	582
2	Efficient silicon solar cells with dopant-free asymmetric heterocontacts. Nature Energy, 2016, 1, .	19.8	461
3	Goldâ€Mediated Exfoliation of Ultralarge Optoelectronicallyâ€Perfect Monolayers. Advanced Materials, 2016, 28, 4053-4058.	11.1	307
4	High-Gain Inverters Based on WSe₂ Complementary Field-Effect Transistors. ACS Nano, 2014, 8, 4948-4953.	7.3	284
5	Roll-to-Roll Gravure Printed Electrochemical Sensors for Wearable and Medical Devices. ACS Nano, 2018, 12, 6978-6987.	7.3	275
6	Photoactuators and motors based on carbon nanotubes with selective chirality distributions. Nature Communications, 2014, 5, 2983.	5.8	269
7	Air Stable p-Doping of WSe₂ by Covalent Functionalization. ACS Nano, 2014, 8, 10808-10814.	7.3	208
8	Efficient and Sustained Photoelectrochemical Water Oxidation by Cobalt Oxide/Silicon Photoanodes with Nanotextured Interfaces. Journal of the American Chemical Society, 2014, 136, 6191-6194.	6.6	204
9	Magnesium Fluoride Electron-Selective Contacts for Crystalline Silicon Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 14671-14677.	4.0	188
10	Conductive and Stable Magnesium Oxide Electronâ€Selective Contacts for Efficient Silicon Solar Cells. Advanced Energy Materials, 2017, 7, 1601863.	10.2	174
11	Stable Dopant-Free Asymmetric Heterocontact Silicon Solar Cells with Efficiencies above 20%. ACS Energy Letters, 2018, 3, 508-513.	8.8	164
12	Reactive Sputtering of Bismuth Vanadate Photoanodes for Solar Water Splitting. Journal of Physical Chemistry C, 2013, 117, 21635-21642.	1.5	162
13	Evaporated tellurium thin films for p-type field-effect transistors and circuits. Nature Nanotechnology, 2020, 15, 53-58.	15.6	153
14	Amorphous Si Thin Film Based Photocathodes with High Photovoltage for Efficient Hydrogen Production. Nano Letters, 2013, 13, 5615-5618.	4.5	151
15	Efficient solar-driven electrochemical CO₂ reduction to hydrocarbons and oxygenates. Energy and Environmental Science, 2017, 10, 2222-2230.	15.6	145
16	Room temperature multiplexed gas sensing using chemical-sensitive 3.5-nm-thin silicon transistors. Science Advances, 2017, 3, e1602557.	4.7	142
17	Lithium Fluoride Based Electron Contacts for High Efficiency nâ€Type Crystalline Silicon Solar Cells. Advanced Energy Materials, 2016, 6, 1600241.	10.2	134
18	Role of TiO₂ Surface Passivation on Improving the Performance of p-InP Photocathodes. Journal of Physical Chemistry C, 2015, 119, 2308-2313.	1.5	127

#	Article	IF	Citations
19	Tantalum Oxide Electron-Selective Heterocontacts for Silicon Photovoltaics and Photoelectrochemical Water Reduction. ACS Energy Letters, 2018, 3, 125-131.	8.8	127
20	Wearable Sweat Band for Noninvasive Levodopa Monitoring. Nano Letters, 2019, 19, 6346-6351.	4.5	121
21	19.2% Efficient InP Heterojunction Solar Cell with Electron-Selective TiO₂ Contact. ACS Photonics, 2014, 1, 1245-1250.	3.2	116
22	Monolithic 3D CMOS Using Layered Semiconductors. Advanced Materials, 2016, 28, 2547-2554.	11.1	107
23	General Thermal Texturization Process of MoS₂ for Efficient Electrocatalytic Hydrogen Evolution Reaction. Nano Letters, 2016, 16, 4047-4053.	4.5	106
24	Chemical Bath Deposition of p-Type Transparent, Highly Conducting (CuS)_{<i>x</i>}:(ZnS)_{1â€“<i>x</i>} Nanocomposite Thin Films and Fabrication of Si Heterojunction Solar Cells. Nano Letters, 2016, 16, 1925-1932.	4.5	89
25	Artificial Photosynthesis on TiO₂-Passivated InP Nanopillars. Nano Letters, 2015, 15, 6177-6181.	4.5	86
26	BiVO₄thin film photoanodes grown by chemical vapor deposition. Physical Chemistry Chemical Physics, 2014, 16, 1651-1657.	1.3	77
27	Dopantâ€Free Partial Rear Contacts Enabling 23% Silicon Solar Cells. Advanced Energy Materials, 2019, 9, 1803367.	10.2	77
28	Air stable <i>n</i>-doping of WSe2 by silicon nitride thin films with tunable fixed charge density. APL Materials, 2014, 2, .	2.2	76
29	Electron-Selective TiO2 Contact for Cu(In,Ga)Se2 Solar Cells. Scientific Reports, 2015, 5, 16028.	1.6	52
30	Enhanced Photocatalytic Reduction of CO₂ to CO through TiO₂ Passivation of InP in Ionic Liquids. Chemistry - A European Journal, 2015, 21, 13502-13507.	1.7	52
31	Evaporated Se<i>_x</i>Te_{1â€}<i>_x</i> Thin Films with Tunable Bandgaps for Shortâ€Wave Infrared Photodetectors. Advanced Materials, 2020, 32, e2001329.	11.1	49
32	Direct growth of single-crystalline IIIâ€“V semiconductors on amorphous substrates. Nature Communications, 2016, 7, 10502.	5.8	45
33	Superacid Passivation of Crystalline Silicon Surfaces. ACS Applied Materials & Interfaces, 2016, 8, 24205-24211.	4.0	38
34	Temperature and Humidity Stable Alkali/Alkalineâ€Earth Metal Carbonates as Electron Heterocontacts for Silicon Photovoltaics. Advanced Energy Materials, 2018, 8, 1800743.	10.2	35
35	Nonepitaxial Thin-Film InP for Scalable and Efficient Photocathodes. Journal of Physical Chemistry Letters, 2015, 6, 2177-2182.	2.1	33
36	Deterministic Nucleation of InP on Metal Foils with the Thin-Film Vaporâ€“Liquidâ€“Solid Growth Mode. Chemistry of Materials, 2014, 26, 1340-1344.	3.2	32

#	Article	IF	Citations
37	Nanoscale Junction Formation by Gas-Phase Monolayer Doping. ACS Applied Materials & Interfaces, 2017, 9, 20648-20655.	4.0	22
38	Enhanced Nearâ€Bandgap Response in InP Nanopillar Solar Cells. Advanced Energy Materials, 2014, 4, 1400061.	10.2	21
39	Oriented Growth of Gold Nanowires on MoS₂. Advanced Functional Materials, 2015, 25, 6257-6264.	7.8	21
40	Zirconium oxide surface passivation of crystalline silicon. Applied Physics Letters, 2018, 112, .	1.5	19
41	Morphological and spatial control of InP growth using closed-space sublimation. Journal of Applied Physics, 2012, 112, 123102.	1.1	18
42	Integration of amorphous ferromagnetic oxides with multiferroic materials for room temperature magnetoelectric spintronics. Scientific Reports, 2020, 10, 3583.	1.6	16
43	Thinâ€Film Solar Cells with InP Absorber Layers Directly Grown on Nonepitaxial Metal Substrates. Advanced Energy Materials, 2015, 5, 1501337.	10.2	13
44	Survey of dopant-free carrier-selective contacts for silicon solar cells. , 2016, , .		12
45	Increased Optoelectronic Quality and Uniformity of Hydrogenated p-InP Thin Films. Chemistry of Materials, 2016, 28, 4602-4607.	3.2	12
46	InAs FinFETs Performance Enhancement by Superacid Surface Treatment. IEEE Transactions on Electron Devices, 2019, 66, 1856-1861.	1.6	10
47	Microchannel contacting of crystalline silicon solar cells. Scientific Reports, 2017, 7, 9085.	1.6	8
48	Shape-controlled single-crystal growth of InP at low temperatures down to 220 Â°C. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 902-906.	3.3	8
49	23% efficient n-type crystalline silicon solar cells with passivated partial rear contacts. , 2018, , .		1
50	Frontispiece: Enhanced Photocatalytic Reduction of CO2to CO through TiO2Passivation of InP in Ionic Liquids. Chemistry - A European Journal, 2015, 21, n/a-n/a.	1.7	0