Thomas G Allen

List of Publications by Year
in descending order

28 papers	2,714 citations	361045 20 h-index	552369 26 g-index
28 all docs	28 docs citations	28 times ranked	2285 citing authors

#	Article	IF	Citations
1	Efficient tandem solar cells with solution-processed perovskite on textured crystalline silicon. Science, 2020, 367, 1135-1140.	6.0	525
2	Damp heatâ€“stable perovskite solar cells with tailored-dimensionality 2D/3D heterojunctions. Science, 2022, 376, 73-77.	6.0	366
3	Tin Oxide Electronâ€Selective Layers for Efficient, Stable, and Scalable Perovskite Solar Cells. Advanced Materials, 2021, 33, e2005504.	11.1	196
4	Enhanced optical path and electron diffusion length enable high-efficiency perovskite tandems. Nature Communications, 2020, 11, 1257.	5.8	180
5	Interplay between temperature and bandgap energies on the outdoor performance of perovskite/silicon tandem solar cells. Nature Energy, 2020, 5, 851-859.	19.8	177
6	Efficient bifacial monolithic perovskite/silicon tandem solar cells via bandgap engineering. Nature Energy, 2021, 6, 167-175.	19.8	164
7	Efficient and stable perovskite-silicon tandem solar cells through contact displacement by MgF _x . Science, 2022, 377, 302-306.	6.0	141
8	High-Performance Perovskite Single-Junction and Textured Perovskite/Silicon Tandem Solar Cells via Slot-Die-Coating. ACS Energy Letters, 2020, 5, 3034-3040.	8.8	134
9	Zrâ€Doped Indium Oxide (IZRO) Transparent Electrodes for Perovskiteâ€Based Tandem Solar Cells. Advanced Functional Materials, 2019, 29, 1901741.	7.8	124
10	Concurrent cationic and anionic perovskite defect passivation enables 27.4% perovskite/silicon tandems with suppression of halide segregation. Joule, 2021, 5, 1566-1586.	11.7	119
11	28.2%-efficient, outdoor-stable perovskite/silicon tandem solar cell. Joule, 2021, 5, 3169-3186.	11.7	99
12	Ligand-bridged charge extraction and enhanced quantum efficiency enable efficient nâ€“iâ€“p perovskite/silicon tandem solar cells. Energy and Environmental Science, 2021, 14, 4377-4390.	15.6	79
13	Linked Nickel Oxide/Perovskite Interface Passivation for Highâ€Performance Textured Monolithic Tandem Solar Cells. Advanced Energy Materials, 2021, 11, 2101662.	10.2	77
14	Recombination junctions for efficient monolithic perovskite-based tandem solar cells: physical principles, properties, processing and prospects. Materials Horizons, 2020, 7, 2791-2809.	6.4	65
15	Sputtered transparent electrodes for optoelectronic devices: Induced damage and mitigation strategies. Matter, 2021, 4, 3549-3584.	5.0	43
16	Toward Stable Monolithic Perovskite/Silicon Tandem Photovoltaics: A Six-Month Outdoor Performance Study in a Hot and Humid Climate. ACS Energy Letters, 2021, 6, 2944-2951.	8.8	42
17	Photon recycling in perovskite solar cells and its impact on device design. Nanophotonics, 2021, 10, 2023-2042.	2.9	29
18	Scaled Deposition of Ti₃C₂T_x MXene on Complex Surfaces: Application Assessment as Rear Electrodes for Silicon Heterojunction Solar Cells. ACS Nano, 2022, 16, 2419-2428.	7.3	28

#	Article	IF	Citations
19	Interfacial Dynamics and Contact Passivation in Perovskite Solar Cells. Advanced Electronic Materials, 2019, 5, 1800500.	2.6	25
20	Mechanical Reliability of Fullerene/Tin Oxide Interfaces in Monolithic Perovskite/Silicon Tandem Cells. ACS Energy Letters, 2022, 7, 827-833.	8.8	25
21	Monolithic Perovskite/Silicon Tandem Photovoltaics with Minimized Cell-to-Module Losses by Refractive-Index Engineering. ACS Energy Letters, 2022, 7, 2370-2372.	8.8	20
22	Electrode metallization for scaled perovskite/silicon tandem solar cells: Challenges and opportunities. Progress in Photovoltaics: Research and Applications, 2023, 31, 429-442.	4.4	18
23	Unleashing the Full Power of Perovskite/Silicon Tandem Modules with Solar Trackers. ACS Energy Letters, 2022, 7, 1604-1610.	8.8	18
24	Photoactivated p-Doping of Organic Interlayer Enables Efficient Perovskite/Silicon Tandem Solar Cells. ACS Energy Letters, 2022, 7, 1987-1993.	8.8	14
25	3â€Ð Modeling of Ultrathin Solar Cells with Nanostructured Dielectric Passivation: Case Study of Chalcogenide Solar Cells. Advanced Theory and Simulations, 2021, 4, 2100191.	1.3	4
26	Linked Nickel Oxide/Perovskite Interface Passivation for Highâ€Performance Textured Monolithic Tandem Solar Cells (Adv. Energy Mater. 40/2021). Advanced Energy Materials, 2021, 11, 2170160.	10.2	2
27	The multiple ways of making perovskite/silicon tandem solar cells: Which way to go?. , 0, , .		0
28	Monolithic perovskite/silicon tandem solar cells: combining stability with high performance. , 0, , .		0