Grant W Walters

List of Publications by Year
in descending order

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57 papers	10,354 citations	70961 41 h-index	138251 58 g-index
58 all docs	58 docs citations	58 times ranked	11317 citing authors

#	Article	IF	Citations
1	Electro-Optic Modulation Using Metal-Free Perovskites. ACS Applied Materials & Interfaces, 2021, 13, 19042-19047.	4.0	12
2	Reply to: Perovskite decomposition and missing crystal planes in HRTEM. Nature, 2021, 594, E8-E9.	13.7	2
3	Edge stabilization in reduced-dimensional perovskites. Nature Communications, 2020, 11, 170.	5.8	147
4	Cascade surface modification of colloidal quantum dot inks enables efficient bulk homojunction photovoltaics. Nature Communications, 2020, 11, 103.	5.8	181
5	Bromine Incorporation and Suppressed Cation Rotation in Mixed-Halide Perovskites. ACS Nano, 2020, 14, 15107-15118.	7.3	23
6	Combining Efficiency and Stability in Mixed Tinâ€“Lead Perovskite Solar Cells by Capping Grains with an Ultrathin 2D Layer. Advanced Materials, 2020, 32, e1907058.	11.1	148
7	Multi-cation perovskites prevent carrier reflection from grain surfaces. Nature Materials, 2020, 19, 412-418.	13.3	100
8	Heterogeneous Supersaturation in Mixed Perovskites. Advanced Science, 2020, 7, 1903166.	5.6	13
9	Transition Dipole Moments of n = 1, 2, and 3 Perovskite Quantum Wells from the Optical Stark Effect and Many-Body Perturbation Theory. Journal of Physical Chemistry Letters, 2020, 11, 716-723.	2.1	24
10	Optimizing Solid-State Ligand Exchange for Colloidal Quantum Dot Optoelectronics: How Much Is Enough?. ACS Applied Energy Materials, 2020, 3, 5385-5392.	2.5	29
11	Directional Light Emission from Layered Metal Halide Perovskite Crystals. Journal of Physical Chemistry Letters, 2020, 11, 3458-3465.	2.1	23
12	Ultrafast narrowband exciton routing within layered perovskite nanoplatelets enables low-loss luminescent solar concentrators. Nature Energy, 2019, 4, 197-205.	19.8	132
13	Lattice anchoring stabilizes solution-processed semiconductors. Nature, 2019, 570, 96-101.	13.7	208
14	Anchored Ligands Facilitate Efficient B-Site Doping in Metal Halide Perovskites. Journal of the American Chemical Society, 2019, 141, 8296-8305.	6.6	53
15	A Facetâ€Specific Quantum Dot Passivation Strategy for Colloid Management and Efficient Infrared Photovoltaics. Advanced Materials, 2019, 31, e1805580.	11.1	87
16	Contactless measurements of photocarrier transport properties in perovskite single crystals. Nature Communications, 2019, 10, 1591.	5.8	55
17	Electroâ€Optic Modulation in Hybrid Metal Halide Perovskites. Advanced Materials, 2019, 31, e1808336.	11.1	42
18	Efficient hybrid colloidal quantum dot/organic solar cells mediated by near-infrared sensitizing small molecules. Nature Energy, 2019, 4, 969-976.	19.8	120

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19	2D matrix engineering for homogeneous quantum dot coupling in photovoltaic solids. Nature Nanotechnology, 2018, 13, 456-462.	15.6	252
20	Electro-optic Response in Germanium Halide Perovskites. Journal of Physical Chemistry Letters, 2018, 9, 1018-1027.	2.1	39
21	The Electrical and Optical Properties of Organometal Halide Perovskites Relevant to Optoelectronic Performance. Advanced Materials, 2018, 30, 1700764.	11.1	141
22	The quantum-confined Stark effect in layered hybrid perovskites mediated by orientational polarizability of confined dipoles. Nature Communications, 2018, 9, 4214.	5.8	61
23	Electronâ€“phonon interaction in efficient perovskite blue emitters. Nature Materials, 2018, 17, 550-556.	13.3	472
24	Dipolar cations confer defect tolerance in wide-bandgap metal halide perovskites. Nature Communications, 2018, 9, 3100.	5.8	237
25	Spin control in reduced-dimensional chiral perovskites. Nature Photonics, 2018, 12, 528-533.	15.6	371
26	Acid-Assisted Ligand Exchange Enhances Coupling in Colloidal Quantum Dot Solids. Nano Letters, 2018, 18, 4417-4423.	4.5	57
27	Broadband Epsilon-near-Zero Reflectors Enhance the Quantum Efficiency of Thin Solar Cells at Visible and Infrared Wavelengths. ACS Applied Materials & Interfaces, 2017, 9, 5556-5565.	4.0	25
28	Temperature- and ligand-dependent carrier transport dynamics in photovoltaic PbS colloidal quantum dot thin films using diffusion-wave methods. Solar Energy Materials and Solar Cells, 2017, 164, 135-145.	3.0	24
29	Pseudohalideâ€Exchanged Quantum Dot Solids Achieve Record Quantum Efficiency in Infrared Photovoltaics. Advanced Materials, 2017, 29, 1700749.	11.1	79
30	Tailoring the Energy Landscape in Quasi-2D Halide Perovskites Enables Efficient Green-Light Emission. Nano Letters, 2017, 17, 3701-3709.	4.5	409
31	Highly Emissive Green Perovskite Nanocrystals in a Solid State Crystalline Matrix. Advanced Materials, 2017, 29, 1605945.	11.1	309
32	Quantum Dots in Two-Dimensional Perovskite Matrices for Efficient Near-Infrared Light Emission. ACS Photonics, 2017, 4, 830-836.	3.2	30
33	Origins of Stokes Shift in PbS Nanocrystals. Nano Letters, 2017, 17, 7191-7195.	4.5	72
34	Enhanced Openâ€Circuit Voltage in Colloidal Quantum Dot Photovoltaics via Reactivityâ€Controlled Solutionâ€Phase Ligand Exchange. Advanced Materials, 2017, 29, 1703627.	11.1	49
35	Chloride Passivation of ZnO Electrodes Improves Charge Extraction in Colloidal Quantum Dot Photovoltaics. Advanced Materials, 2017, 29, 1702350.	11.1	126
36	Molecular Doping of the Hole-Transporting Layer for Efficient, Single-Step-Deposited Colloidal Quantum Dot Photovoltaics. ACS Energy Letters, 2017, 2, 1952-1959.	8.8	45

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37	Mixed-quantum-dot solar cells. Nature Communications, 2017, 8, 1325.	5.8	148
38	Mobile-Ion-Induced Degradation of Organic Hole-Selective Layers in Perovskite Solar Cells. Journal of Physical Chemistry C, 2017, 121, 14517-14523.	1.5	117
39	Hybrid organicâ€“inorganic inks flatten the energy landscape in colloidal quantum dotÂsolids. Nature Materials, 2017, 16, 258-263.	13.3	563
40	Fast and Sensitive Solutionâ€Processed Visibleâ€Blind Perovskite UV Photodetectors. Advanced Materials, 2016, 28, 7264-7268.	11.1	234
41	Single-step colloidal quantum dot films for infrared solar harvesting. Applied Physics Letters, 2016, 109, .	1.5	52
42	Remote Molecular Doping of Colloidal Quantum Dot Photovoltaics. ACS Energy Letters, 2016, 1, 922-930.	8.8	40
43	Engineering of CH₃NH₃PbI₃ Perovskite Crystals by Alloying Large Organic Cations for Enhanced Thermal Stability and Transport Properties. Angewandte Chemie, 2016, 128, 10844-10848.	1.6	18
44	Engineering of CH₃NH₃PbI₃ Perovskite Crystals by Alloying Large Organic Cations for Enhanced Thermal Stability and Transport Properties. Angewandte Chemie - International Edition, 2016, 55, 10686-10690.	7.2	152
45	Amineâ€Free Synthesis of Cesium Lead Halide Perovskite Quantum Dots for Efficient Lightâ€Emitting Diodes. Advanced Functional Materials, 2016, 26, 8757-8763.	7.8	344
46	Crosslinked Remoteâ€Doped Holeâ€Extracting Contacts Enhance Stability under Accelerated Lifetime Testing in Perovskite Solar Cells. Advanced Materials, 2016, 28, 2807-2815.	11.1	108
47	Perovskite energy funnels for efficient light-emitting diodes. Nature Nanotechnology, 2016, 11, 872-877.	15.6	1,868
48	Quantitative Analysis of Trap-State-Mediated Exciton Transport in Perovskite-Shelled PbS Quantum Dot Thin Films Using Photocarrier Diffusion-Wave Nondestructive Evaluation and Imaging. Journal of Physical Chemistry C, 2016, 120, 14416-14427.	1.5	26
49	10.6% Certified Colloidal Quantum Dot Solar Cells via Solvent-Polarity-Engineered Halide Passivation. Nano Letters, 2016, 16, 4630-4634.	4.5	312
50	Passivation Using Molecular Halides Increases Quantum Dot Solar Cell Performance. Advanced Materials, 2016, 28, 299-304.	11.1	312
51	Highly efficient quantum dot near-infrared light-emitting diodes. Nature Photonics, 2016, 10, 253-257.	15.6	361
52	Colloidal CdSe_{1â€“x}S_x Nanoplatelets with Narrow and Continuously-Tunable Electroluminescence. Nano Letters, 2015, 15, 4611-4615.	4.5	114
53	Two-Photon Absorption in Organometallic Bromide Perovskites. ACS Nano, 2015, 9, 9340-9346.	7.3	254
54	Structural, optical, and electronic studies of wide-bandgap lead halide perovskites. Journal of Materials Chemistry C, 2015, 3, 8839-8843.	2.7	161

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55	Quantum-dot-in-perovskite solids. Nature, 2015, 523, 324-328.	13.7	468
56	Efficient Luminescence from Perovskite Quantum Dot Solids. ACS Applied Materials & Interfaces, 2015, 7, 25007-25013.	4.0	481
57	Nanomechanical response of bacterial cells to cationic antimicrobial peptides. Soft Matter, 2014, 10, 1806.	1.2	23