

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	Perovskite energy funnels for efficient light-emitting diodes. <i>Nature Nanotechnology</i> , 2016, 11, 872-877.	15.6	1,868
2	Hybrid organic–inorganic inks flatten the energy landscape in colloidal quantum dot solids. <i>Nature Materials</i> , 2017, 16, 258-263.	13.3	563
3	Efficient Luminescence from Perovskite Quantum Dot Solids. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 25007-25013.	4.0	481
4	Electron–phonon interaction in efficient perovskite blue emitters. <i>Nature Materials</i> , 2018, 17, 550-556.	13.3	472
5	Quantum-dot-in-perovskite solids. <i>Nature</i> , 2015, 523, 324-328.	13.7	468
6	Tailoring the Energy Landscape in Quasi-2D Halide Perovskites Enables Efficient Green-Light Emission. <i>Nano Letters</i> , 2017, 17, 3701-3709.	4.5	409
7	Spin control in reduced-dimensional chiral perovskites. <i>Nature Photonics</i> , 2018, 12, 528-533.	15.6	371
8	Highly efficient quantum dot near-infrared light-emitting diodes. <i>Nature Photonics</i> , 2016, 10, 253-257.	15.6	361
9	Amine-Free Synthesis of Cesium Lead Halide Perovskite Quantum Dots for Efficient Light-Emitting Diodes. <i>Advanced Functional Materials</i> , 2016, 26, 8757-8763.	7.8	344
10	10.6% Certified Colloidal Quantum Dot Solar Cells via Solvent-Polarity-Engineered Halide Passivation. <i>Nano Letters</i> , 2016, 16, 4630-4634.	4.5	312
11	Passivation Using Molecular Halides Increases Quantum Dot Solar Cell Performance. <i>Advanced Materials</i> , 2016, 28, 299-304.	11.1	312
12	Highly Emissive Green Perovskite Nanocrystals in a Solid State Crystalline Matrix. <i>Advanced Materials</i> , 2017, 29, 1605945.	11.1	309
13	Two-Photon Absorption in Organometallic Bromide Perovskites. <i>ACS Nano</i> , 2015, 9, 9340-9346.	7.3	254
14	2D matrix engineering for homogeneous quantum dot coupling in photovoltaic solids. <i>Nature Nanotechnology</i> , 2018, 13, 456-462.	15.6	252
15	Dipolar cations confer defect tolerance in wide-bandgap metal halide perovskites. <i>Nature Communications</i> , 2018, 9, 3100.	5.8	237
16	Fast and Sensitive Solution-Processed Visible-Blind Perovskite UV Photodetectors. <i>Advanced Materials</i> , 2016, 28, 7264-7268.	11.1	234
17	Lattice anchoring stabilizes solution-processed semiconductors. <i>Nature</i> , 2019, 570, 96-101.	13.7	208
18	Cascade surface modification of colloidal quantum dot inks enables efficient bulk homojunction photovoltaics. <i>Nature Communications</i> , 2020, 11, 103.	5.8	181

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19	Structural, optical, and electronic studies of wide-bandgap lead halide perovskites. <i>Journal of Materials Chemistry C</i> , 2015, 3, 8839-8843.	2.7	161
20	Engineering of CH ₃ NH ₃ PbI ₃ Perovskite Crystals by Alloying Large Organic Cations for Enhanced Thermal Stability and Transport Properties. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 10686-10690.	7.2	152
21	Mixed-quantum-dot solar cells. <i>Nature Communications</i> , 2017, 8, 1325.	5.8	148
22	Combining Efficiency and Stability in Mixed Tin-Lead Perovskite Solar Cells by Capping Grains with an Ultrathin 2D Layer. <i>Advanced Materials</i> , 2020, 32, e1907058.	11.1	148
23	Edge stabilization in reduced-dimensional perovskites. <i>Nature Communications</i> , 2020, 11, 170.	5.8	147
24	The Electrical and Optical Properties of Organometal Halide Perovskites Relevant to Optoelectronic Performance. <i>Advanced Materials</i> , 2018, 30, 1700764.	11.1	141
25	Ultrafast narrowband exciton routing within layered perovskite nanoplatelets enables low-loss luminescent solar concentrators. <i>Nature Energy</i> , 2019, 4, 197-205.	19.8	132
26	Chloride Passivation of ZnO Electrodes Improves Charge Extraction in Colloidal Quantum Dot Photovoltaics. <i>Advanced Materials</i> , 2017, 29, 1702350.	11.1	126
27	Efficient hybrid colloidal quantum dot/organic solar cells mediated by near-infrared sensitizing small molecules. <i>Nature Energy</i> , 2019, 4, 969-976.	19.8	120
28	Mobile-Ion-Induced Degradation of Organic Hole-Selective Layers in Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2017, 121, 14517-14523.	1.5	117
29	Colloidal CdSe _{1-x} S _x Nanoplatelets with Narrow and Continuously-Tunable Electroluminescence. <i>Nano Letters</i> , 2015, 15, 4611-4615.	4.5	114
30	Crosslinked Remote-Doped Hole-Extracting Contacts Enhance Stability under Accelerated Lifetime Testing in Perovskite Solar Cells. <i>Advanced Materials</i> , 2016, 28, 2807-2815.	11.1	108
31	Multi-cation perovskites prevent carrier reflection from grain surfaces. <i>Nature Materials</i> , 2020, 19, 412-418.	13.3	100
32	A Facet-Specific Quantum Dot Passivation Strategy for Colloid Management and Efficient Infrared Photovoltaics. <i>Advanced Materials</i> , 2019, 31, e1805580.	11.1	87
33	Pseudohalide-Exchanged Quantum Dot Solids Achieve Record Quantum Efficiency in Infrared Photovoltaics. <i>Advanced Materials</i> , 2017, 29, 1700749.	11.1	79
34	Origins of Stokes Shift in PbS Nanocrystals. <i>Nano Letters</i> , 2017, 17, 7191-7195.	4.5	72
35	The quantum-confined Stark effect in layered hybrid perovskites mediated by orientational polarizability of confined dipoles. <i>Nature Communications</i> , 2018, 9, 4214.	5.8	61
36	Acid-Assisted Ligand Exchange Enhances Coupling in Colloidal Quantum Dot Solids. <i>Nano Letters</i> , 2018, 18, 4417-4423.	4.5	57

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37	Contactless measurements of photocarrier transport properties in perovskite single crystals. <i>Nature Communications</i> , 2019, 10, 1591.	5.8	55
38	Anchored Ligands Facilitate Efficient B-Site Doping in Metal Halide Perovskites. <i>Journal of the American Chemical Society</i> , 2019, 141, 8296-8305.	6.6	53
39	Single-step colloidal quantum dot films for infrared solar harvesting. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	52
40	Enhanced Open-Circuit Voltage in Colloidal Quantum Dot Photovoltaics via Reactivity-Controlled Solution-Phase Ligand Exchange. <i>Advanced Materials</i> , 2017, 29, 1703627.	11.1	49
41	Molecular Doping of the Hole-Transporting Layer for Efficient, Single-Step-Deposited Colloidal Quantum Dot Photovoltaics. <i>ACS Energy Letters</i> , 2017, 2, 1952-1959.	8.8	45
42	Electro-Optic Modulation in Hybrid Metal Halide Perovskites. <i>Advanced Materials</i> , 2019, 31, e1808336.	11.1	42
43	Remote Molecular Doping of Colloidal Quantum Dot Photovoltaics. <i>ACS Energy Letters</i> , 2016, 1, 922-930.	8.8	40
44	Electro-optic Response in Germanium Halide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 1018-1027.	2.1	39
45	Quantum Dots in Two-Dimensional Perovskite Matrices for Efficient Near-Infrared Light Emission. <i>ACS Photonics</i> , 2017, 4, 830-836.	3.2	30
46	Optimizing Solid-State Ligand Exchange for Colloidal Quantum Dot Optoelectronics: How Much Is Enough?. <i>ACS Applied Energy Materials</i> , 2020, 3, 5385-5392.	2.5	29
47	Quantitative Analysis of Trap-State-Mediated Exciton Transport in Perovskite-Shelled PbS Quantum Dot Thin Films Using Photocarrier Diffusion-Wave Nondestructive Evaluation and Imaging. <i>Journal of Physical Chemistry C</i> , 2016, 120, 14416-14427.	1.5	26
48	Broadband Epsilon-near-Zero Reflectors Enhance the Quantum Efficiency of Thin Solar Cells at Visible and Infrared Wavelengths. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 5556-5565.	4.0	25
49	Temperature- and ligand-dependent carrier transport dynamics in photovoltaic PbS colloidal quantum dot thin films using diffusion-wave methods. <i>Solar Energy Materials and Solar Cells</i> , 2017, 164, 135-145.	3.0	24
50	Transition Dipole Moments of n = 1, 2, and 3 Perovskite Quantum Wells from the Optical Stark Effect and Many-Body Perturbation Theory. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 716-723.	2.1	24
51	Nanomechanical response of bacterial cells to cationic antimicrobial peptides. <i>Soft Matter</i> , 2014, 10, 1806.	1.2	23
52	Bromine Incorporation and Suppressed Cation Rotation in Mixed-Halide Perovskites. <i>ACS Nano</i> , 2020, 14, 15107-15118.	7.3	23
53	Directional Light Emission from Layered Metal Halide Perovskite Crystals. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 3458-3465.	2.1	23
54	Engineering of CH ₃ NH ₃ PbI ₃ Perovskite Crystals by Alloying Large Organic Cations for Enhanced Thermal Stability and Transport Properties. <i>Angewandte Chemie</i> , 2016, 128, 10844-10848.	1.6	18

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55	Heterogeneous Supersaturation in Mixed Perovskites. <i>Advanced Science</i> , 2020, 7, 1903166.	5.6	13
56	Electro-Optic Modulation Using Metal-Free Perovskites. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 19042-19047.	4.0	12
57	Reply to: Perovskite decomposition and missing crystal planes in HRTEM. <i>Nature</i> , 2021, 594, E8-E9.	13.7	2