Grant W Walters

List of Publications by Citations

57 papers	7,841 citations	37 h-index	58 g-index
58 ext. papers	9,094 ext. citations	19.5 avg, IF	5.81 L-index

#	Paper	IF	Citations
57	Perovskite energy funnels for efficient light-emitting diodes. *Nature Nanotechnology*, **2016**, 11, 872-877	28.7	1484
56	Hybrid organic-inorganic inks flatten the energy landscape in colloidal quantum dot solids. *Nature Materials*, **2017**, 16, 258-263	27	432
55	Efficient Luminescence from Perovskite Quantum Dot Solids. *ACS Applied Materials & Interfaces*, **2015**, 7, 25007-13	9.5	401
54	Quantum-dot-in-perovskite solids. *Nature*, **2015**, 523, 324-8	50.4	382
53	Electron-phonon interaction in efficient perovskite blue emitters. *Nature Materials*, **2018**, 17, 550-556	27	310
52	Tailoring the Energy Landscape in Quasi-2D Halide Perovskites Enables Efficient Green-Light Emission. *Nano Letters*, **2017**, 17, 3701-3709	11.5	309
51	Highly efficient quantum dot near-infrared light-emitting diodes. *Nature Photonics*, **2016**, 10, 253-257	33.9	295
50	Passivation Using Molecular Halides Increases Quantum Dot Solar Cell Performance. *Advanced Materials*, **2016**, 28, 299-304	24	279
49	10.6% Certified Colloidal Quantum Dot Solar Cells via Solvent-Polarity-Engineered Halide Passivation. *Nano Letters*, **2016**, 16, 4630-4	11.5	275
48	Amine-Free Synthesis of Cesium Lead Halide Perovskite Quantum Dots for Efficient Light-Emitting Diodes. *Advanced Functional Materials*, **2016**, 26, 8757-8763	15.6	265
47	Highly Emissive Green Perovskite Nanocrystals in a Solid State Crystalline Matrix. *Advanced Materials*, **2017**, 29, 1605945	24	252
46	Two-Photon Absorption in Organometallic Bromide Perovskites. *ACS Nano*, **2015**, 9, 9340-6	16.7	208
45	Spin control in reduced-dimensional chiral perovskites. *Nature Photonics*, **2018**, 12, 528-533	33.9	205
44	2D matrix engineering for homogeneous quantum dot coupling in photovoltaic solids. *Nature Nanotechnology*, **2018**, 13, 456-462	28.7	196
43	Fast and Sensitive Solution-Processed Visible-Blind Perovskite UV Photodetectors. *Advanced Materials*, **2016**, 28, 7264-8	24	192
42	Dipolar cations confer defect tolerance in wide-bandgap metal halide perovskites. *Nature Communications*, **2018**, 9, 3100	17.4	171
41	Lattice anchoring stabilizes solution-processed semiconductors. *Nature*, **2019**, 570, 96-101	50.4	149

40	Structural, optical, and electronic studies of wide-bandgap lead halide perovskites. *Journal of Materials Chemistry C*, **2015**, 3, 8839-8843	7.1	129
39	Engineering of CH3 NH3 PbI3 Perovskite Crystals by Alloying Large Organic Cations for Enhanced Thermal Stability and Transport Properties. *Angewandte Chemie - International Edition*, **2016**, 55, 10686-90	16.4	121
38	Mixed-quantum-dot solar cells. *Nature Communications*, **2017**, 8, 1325	17.4	113
37	Cascade surface modification of colloidal quantum dot inks enables efficient bulk homojunction photovoltaics. *Nature Communications*, **2020**, 11, 103	17.4	110
36	The Electrical and Optical Properties of Organometal Halide Perovskites Relevant to Optoelectronic Performance. *Advanced Materials*, **2018**, 30, 1700764	24	101
35	Colloidal CdSe(1-x)S(x) Nanoplatelets with Narrow and Continuously-Tunable Electroluminescence. *Nano Letters*, **2015**, 15, 4611-5	11.5	100
34	Chloride Passivation of ZnO Electrodes Improves Charge Extraction in Colloidal Quantum Dot Photovoltaics. *Advanced Materials*, **2017**, 29, 1702350	24	97
33	Crosslinked Remote-Doped Hole-Extracting Contacts Enhance Stability under Accelerated Lifetime Testing in Perovskite Solar Cells. *Advanced Materials*, **2016**, 28, 2807-15	24	94
32	Combining Efficiency and Stability in Mixed Tin-Lead Perovskite Solar Cells by Capping Grains with an Ultrathin 2D Layer. *Advanced Materials*, **2020**, 32, e1907058	24	92
31	Ultrafast narrowband exciton routing within layered perovskite nanoplatelets enables low-loss luminescent solar concentrators. *Nature Energy*, **2019**, 4, 197-205	62.3	87
30	Mobile-Ion-Induced Degradation of Organic Hole-Selective Layers in Perovskite Solar Cells. *Journal of Physical Chemistry C*, **2017**, 121, 14517-14523	3.8	83
29	Edge stabilization in reduced-dimensional perovskites. *Nature Communications*, **2020**, 11, 170	17.4	79
28	Efficient hybrid colloidal quantum dot/organic solar cells mediated by near-infrared sensitizing small molecules. *Nature Energy*, **2019**, 4, 969-976	62.3	78
27	Pseudohalide-Exchanged Quantum Dot Solids Achieve Record Quantum Efficiency in Infrared Photovoltaics. *Advanced Materials*, **2017**, 29, 1700749	24	61
26	A Facet-Specific Quantum Dot Passivation Strategy for Colloid Management and Efficient Infrared Photovoltaics. *Advanced Materials*, **2019**, 31, e1805580	24	55
25	Multi-cation perovskites prevent carrier reflection from grain surfaces. *Nature Materials*, **2020**, 19, 412-418	17	52
24	Origins of Stokes Shift in PbS Nanocrystals. *Nano Letters*, **2017**, 17, 7191-7195	11.5	45
23	Enhanced Open-Circuit Voltage in Colloidal Quantum Dot Photovoltaics via Reactivity-Controlled Solution-Phase Ligand Exchange. *Advanced Materials*, **2017**, 29, 1703627	24	42

22	Single-step colloidal quantum dot films for infrared solar harvesting. *Applied Physics Letters*, **2016**, 109, 183105	3.4	42
21	Molecular Doping of the Hole-Transporting Layer for Efficient, Single-Step-Deposited Colloidal Quantum Dot Photovoltaics. *ACS Energy Letters*, **2017**, 2, 1952-1959	20.1	39
20	Acid-Assisted Ligand Exchange Enhances Coupling in Colloidal Quantum Dot Solids. *Nano Letters*, **2018**, 18, 4417-4423	11.5	37
19	Contactless measurements of photocarrier transport properties in perovskite single crystals. *Nature Communications*, **2019**, 10, 1591	17.4	35
18	The quantum-confined Stark effect in layered hybrid perovskites mediated by orientational polarizability of confined dipoles. *Nature Communications*, **2018**, 9, 4214	17.4	35
17	Remote Molecular Doping of Colloidal Quantum Dot Photovoltaics. *ACS Energy Letters*, **2016**, 1, 922-930	20.1	34
16	Anchored Ligands Facilitate Efficient B-Site Doping in Metal Halide Perovskites. *Journal of the American Chemical Society*, **2019**, 141, 8296-8305	16.4	32
15	Quantum Dots in Two-Dimensional Perovskite Matrices for Efficient Near-Infrared Light Emission. *ACS Photonics*, **2017**, 4, 830-836	6.3	28
14	Electro-Optic Modulation in Hybrid Metal Halide Perovskites. *Advanced Materials*, **2019**, 31, e1808336	24	26
13	Electro-optic Response in Germanium Halide Perovskites. *Journal of Physical Chemistry Letters*, **2018**, 9, 1018-1027	6.4	24
12	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	3.8	22
11	Optimizing Solid-State Ligand Exchange for Colloidal Quantum Dot Optoelectronics: How Much Is Enough?. *ACS Applied Energy Materials*, **2020**, 3, 5385-5392	6.1	21
10	Nanomechanical response of bacterial cells to cationic antimicrobial peptides. *Soft Matter*, **2014**, 10, 1806-15	3.6	19
9	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	9.5	18
8	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	6.4	18
7	Directional Light Emission from Layered Metal Halide Perovskite Crystals. *Journal of Physical Chemistry Letters*, **2020**, 11, 3458-3465	6.4	16
6	Engineering of CH3NH3PbI3 Perovskite Crystals by Alloying Large Organic Cations for Enhanced Thermal Stability and Transport Properties. *Angewandte Chemie*, **2016**, 128, 10844-10848	3.6	15
5	Transition Dipole Moments of = 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	6.4	14

4	Bromine Incorporation and Suppressed Cation Rotation in Mixed-Halide Perovskites. *ACS Nano*, **2020**, 14, 15107-15118	16.7	10
3	Heterogeneous Supersaturation in Mixed Perovskites. *Advanced Science*, **2020**, 7, 1903166	13.6	8
2	Electro-Optic Modulation Using Metal-Free Perovskites. *ACS Applied Materials & Interfaces*, **2021**, 13, 19042-19047	9.5	3
1	Reply to: Perovskite decomposition and missing crystal planes in HRTEM. *Nature*, **2021**, 594, E8-E9	50.4	