Jonathan E Halpert

List of Publications by Year
in descending order

69 papers	8,265 citations	117625 34 h-index	102487 66 g-index
71 all docs	71 docs citations	71 times ranked	11387 citing authors

#	Article	IF	Citations
1	How do molecular interactions affect fluorescence behavior of AIEgens in solution and aggregate states?. Science China Chemistry, 2022, 65, 135-144.	8.2	31
2	Solution-Processed, Inverted AgBiS₂ Nanocrystal Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 1634-1642.	8.0	12
3	Solution-Processed Red, Green, and Blue Quantum Rod Light-Emitting Diodes. ACS Applied Materials & Interfaces, 2022, 14, 18723-18735.	8.0	7
4	Recent advancements in batteries and photo-batteries using metal halide perovskites. APL Materials, 2022, 10, .	5.1	17
5	Polarization anisotropy losses due to morphological instability in CsPbX₃ nanorods and strategies for mitigation. Journal of Materials Chemistry C, 2022, 10, 8947-8954.	5.5	6
6	Highly Stable Tetrahydrothiophene 1-Oxide Caged Copper Bromide and Chloride Clusters with Deep-Red to Near-IR Emission. Inorganic Chemistry, 2022, 61, 10950-10956.	4.0	4
7	Discovery of a New Intermediate Enables Oneâ€Step Deposition of Highâ€Quality Perovskite Films via Solvent Engineering. Solar Rrl, 2021, 5, 2000712.	5.8	24
8	â€œSimpleâ€•Aggregationâ€Induced Emission Luminogens for Nondoped Solutionâ€Processed Organic Lightâ€Emitting Diodes with Emission Close to Pure Red in the Standard Red, Green, and Blue Gamut. Advanced Photonics Research, 2021, 2, 2100004.	3.6	2
9	65â€5: Improved Brightness and Efficiency of Green Quantumâ€Rodâ€Based Lightâ€Emitting Diodes. Digest of Technical Papers SID International Symposium, 2021, 52, 959-962.	0.3	0
10	Photorechargeable Lead-Free Perovskite Lithium-Ion Batteries Using Hexagonal Cs₃Bi₂I₉ Nanosheets. Nano Letters, 2021, 21, 5578-5585.	9.1	59
11	Optically Clear Films of Formamidinium Lead Bromide Perovskite for Wide-Band-Gap, Solution-Processed, Semitransparent Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 37223-37230.	8.0	10
12	The Multiple Roles of Metal Ion Dopants in Spectrally Stable, Efficient Quasiâ€2D Perovskite Skyâ€Blue Lightâ€Emitting Devices. Advanced Optical Materials, 2021, 9, 2100860.	7.3	7
13	Emergent electronic properties in Co-deposited superatomic clusters. Journal of Chemical Physics, 2021, 155, 124309.	3.0	1
14	Rapid Synthesis of Bright, Shapeâ€Controlled, Large Single Crystals of Cs₃Cu₂X₅ for Phase Pure Single (XÂ=ÂBr, Cl) and Mixed Halides (XÂ=ÂBr/Cl) as the Blue and Green Components for Printable White Lightâ€Emitting Devices. Advanced Materials Interfaces, 2021, 8, 2101471.	3.7	21
15	Progress in copper metal halides for optoelectronic applications. Materials Chemistry Frontiers, 2021, 5, 4796-4820.	5.9	55
16	Tuning the Self-Trapped Emission: Reversible Transformation to 0D Copper Clusters Permits Bright Red Emission in Potassium and Rubidium Copper Bromides. ACS Energy Letters, 2021, 6, 4383-4389.	17.4	16
17	Potassium and Rubidium Copper Halide A₂CuX₃ (A = K, Rb, X = Cl, Br) Micro- and Nanocrystals with Near Unity Quantum Yields for White Light Applications. ACS Applied Nano Materials, 2021, 4, 14188-14196.	5.0	13
18	Quantum-Dot Tandem Solar Cells Based on a Solution-Processed Nanoparticle Intermediate Layer. ACS Applied Materials & Interfaces, 2020, 12, 2313-2318.	8.0	19

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19	Recent Advancements in Near-Infrared Perovskite Light-Emitting Diodes. ACS Applied Electronic Materials, 2020, 2, 3470-3490.	4.3	40
20	Large Photogain in Multicolor Nanocrystal Photodetector Arrays Enabling Room-Temperature Detection of Targets Above 100 Â°C. ACS Photonics, 2020, 7, 3078-3085.	6.6	5
21	All-Inorganic, Solution-Processed, Inverted CsPbI₃ Quantum Dot Solar Cells with a PCE of 13.1% Achieved via a Layer-by-Layer FAI Treatment. ACS Applied Energy Materials, 2020, 3, 5620-5627.	5.1	41
22	Room Temperature Synthesis of Stable, Printable Cs₃Cu₂X₅ (X = I,) Tj ETQq0 0 0 rgBT /Overlock Chemistry of Materials, 2020, 32, 5515-5524.	6.7	127
23	Single crystals of mixed Br/Cl and Sn-doped formamidinium lead halide perovskites via inverse temperature crystallization. RSC Advances, 2020, 10, 3832-3836.	3.6	18
24	The Future Is Blue (LEDs): Why Chemistry Is the Key to Perovskite Displays. Chemistry of Materials, 2019, 31, 6003-6032.	6.7	91
25	Luminescent Downâ€Conversion Semiconductor Quantum Dots and Aligned Quantum Rods for Liquid Crystal Displays. Advanced Science, 2019, 6, 1901345.	11.2	83
26	Pâ€1.16: Synthesis of CsPbBr₃ Nanorods with Tuneable Optical Anisotropy for Optoelectronic Applications. Digest of Technical Papers SID International Symposium, 2019, 50, 949-952.	0.3	0
27	Ultrafast Spectrally Resolved Photoinduced Complex Refractive Index Changes in CsPbBr₃ Perovskites. ACS Photonics, 2019, 6, 345-350.	6.6	27
28	Enhanced mobility in PbS quantum dot films via PbSe quantum dot mixing for optoelectronic applications. Journal of Materials Chemistry C, 2019, 7, 4497-4502.	5.5	40
29	High Efficiency Blue and Green Light-Emitting Diodes Using Ruddlesdenâ€“Popper Inorganic Mixed Halide Perovskites with Butylammonium Interlayers. Chemistry of Materials, 2019, 31, 83-89.	6.7	250
30	Shape-, Size-, and Composition-Controlled Thallium Lead Halide Perovskite Nanowires and Nanocrystals with Tunable Band Gaps. Chemistry of Materials, 2018, 30, 2973-2982.	6.7	28
31	Photo-Electrosensitive Memristor Using Oxygen Doping in HgTe Nanocrystal Films. ACS Applied Materials & Interfaces, 2018, 10, 18927-18934.	8.0	12
32	PbSe Quantum Dot Passivated Via Mixed Halide Perovskite Nanocrystals for Solar Cells With Over 9% Efficiency. Solar Rrl, 2018, 2, 1800234.	5.8	29
33	Room Temperature Mid-IR Detection through Localized Surface Vibrational States of SnTe Nanocrystals. ACS Sensors, 2018, 3, 2087-2094.	7.8	8
34	300 nm Spectral Resolution in the Mid-Infrared with Robust, High Responsivity Flexible Colloidal Quantum Dot Devices at Room Temperature. ACS Photonics, 2018, 5, 3009-3015.	6.6	40
35	Controlled Growth of CH₃NH₃PbI₃ Using a Dynamically Dispensed Spinâ€Coating Method: Improving Efficiency with a Reproducible PbI₂ Blocking Layer. ChemSusChem, 2017, 10, 2677-2684.	6.8	17
36	Field-Driven Ion Migration and Color Instability in Red-Emitting Mixed Halide Perovskite Nanocrystal Light-Emitting Diodes. Chemistry of Materials, 2017, 29, 5965-5973.	6.7	267

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37	The Evolution of Quantum Confinement in CsPbBr₃ Perovskite Nanocrystals. Chemistry of Materials, 2017, 29, 3644-3652.	6.7	258
38	Dual-Functional Optoelectronic and Magnetic Pyrite/Iron Selenide Core/Shell Nanocrystals. Journal of Physical Chemistry C, 2017, 121, 8220-8226.	3.1	7
39	A Hybrid Perovskite Solar Cell Modified With Copper Indium Sulfide Nanocrystals to Enhance Hole Transport and Moisture Stability. Solar Rrl, 2017, 1, 1700078.	5.8	19
40	A Hybrid Perovskite Solar Cell Modified With Copper Indium Sulfide Nanocrystals to Enhance Hole Transport and Moisture Stability (Solar RRL 8â•2017). Solar Rrl, 2017, 1, 1770130.	5.8	0
41	Identification of dipole disorder in low temperature solution processed oxides: its utility and suppression for transparent high performance solution-processed hybrid electronics. Chemical Science, 2016, 7, 6337-6346.	7.4	41
42	Charge Dynamics in Solution-Processed Nanocrystalline CuInS₂ Solar Cells. ACS Nano, 2015, 9, 5857-5867.	14.6	43
43	Solution Synthesis and Optical Properties of Transition-Metal-Doped Silicon Nanocrystals. Journal of Physical Chemistry Letters, 2015, 6, 1573-1576.	4.6	25
44	Hot-carrier cooling and photoinduced refractive index changes in organicâ€“inorganic lead halide perovskites. Nature Communications, 2015, 6, 8420.	12.8	491
45	Effect of Carrier Thermalization Dynamics on Light Emission and Amplification in Organometal Halide Perovskites. Journal of Physical Chemistry Letters, 2015, 6, 153-158.	4.6	101
46	Recent advances in micro-/nano-structured hollow spheres for energy applications: From simple to complex systems. Energy and Environmental Science, 2012, 5, 5604-5618.	30.8	1,069
47	A Novel and Highly Efficient Photocatalyst Based on P25â€“Graphdiyne Nanocomposite. Small, 2012, 8, 265-271.	10.0	289
48	Granumâ€Like Stacking Structures with TiO₂â€“Graphene Nanosheets for Improving Photoâ€electric Conversion. Small, 2012, 8, 1762-1770.	10.0	44
49	Hierarchical Hydroxyapatite Microspheres Composed of Nanorods and Their Competitive Sorption Behavior for Heavy Metal Ions. European Journal of Inorganic Chemistry, 2012, 2012, 2665-2668.	2.0	14
50	Waterâ€Soluble Monodispersed Lanthanide Oxide Submicrospheres: PVPâ€Assisted Hydrothermal Synthesis, Sizeâ€Control and Luminescence Properties. ChemPhysChem, 2012, 13, 2610-2614.	2.1	13
51	Accurate Control of Multishelled ZnO Hollow Microspheres for Dyeâ€Sensitized Solar Cells with High Efficiency. Advanced Materials, 2012, 24, 1046-1049.	21.0	482
52	Formation of efficient dye-sensitized solar cells by introducing an interfacial layer of hierarchically ordered macro-mesoporous TiO2 film. Science China Chemistry, 2011, 54, 930-935.	8.2	19
53	Morphology of contact printed colloidal quantum dots in organic semiconductor films: Implications for QD-LEDs. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 120-123.	0.8	1
54	Nanoscale Morphology Revealed at the Interface Between Colloidal Quantum Dots and Organic Semiconductor Films. Nano Letters, 2010, 10, 2421-2426.	9.1	26

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55	Air-Stable Operation of Transparent, Colloidal Quantum Dot Based LEDs with a Unipolar Device Architecture. Nano Letters, 2010, 10, 24-29.	9.1	149
56	Charge transport in mixed CdSe and CdTe colloidal nanocrystal films. Physical Review B, 2010, 82, .	3.2	47
57	Inkjetâ€Printed Quantum Dotâ€“Polymer Composites for Fullâ€Color ACâ€Driven Displays. Advanced Materials, 2009, 21, 2151-2155.	21.0	367
58	Quantum Dot Light-Emitting Devices with Electroluminescence Tunable over the Entire Visible Spectrum. Nano Letters, 2009, 9, 2532-2536.	9.1	796
59	Alternating Current Driven Electroluminescence from ZnSe/ZnS:Mn/ZnS Nanocrystals. Nano Letters, 2009, 9, 2367-2371.	9.1	194
60	Selection of Metal Oxide Charge Transport Layers for Colloidal Quantum Dot LEDs. ACS Nano, 2009, 3, 3581-3586.	14.6	199
61	Electrostatic Formation of Quantum Dot/J-aggregate FRET Pairs in Solution. Journal of Physical Chemistry C, 2009, 113, 9986-9992.	3.1	76
62	Nanoscale Investigation of Collodial Quantum Dot/Organic Semiconductor Interfaces. , 2009, , .		1
63	Colloidal quantum-dot light-emitting diodes with metal-oxide charge transport layers. Nature Photonics, 2008, 2, 247-250.	31.4	855
64	Photoconduction in Annealed and Chemically Treated CdSe/ZnS Inorganic Nanocrystal Films. Journal of Physical Chemistry C, 2008, 112, 2308-2316.	3.1	65
65	Electroluminescence from a Mixed Redâ^'Greenâ^'Blue Colloidal Quantum Dot Monolayer. Nano Letters, 2007, 7, 2196-2200.	9.1	399
66	Synthesis of CdSe/CdTe Nanobarbells. Journal of the American Chemical Society, 2006, 128, 12590-12591.	13.7	168
67	NiO as an Inorganic Hole-Transporting Layer in Quantum-Dot Light-Emitting Devices. Nano Letters, 2006, 6, 2991-2994.	9.1	234
68	Color-Saturated Green-Emitting QD-LEDs. Angewandte Chemie - International Edition, 2006, 45, 5796-5799.	13.8	250
69	Multiexciton fluorescence from semiconductor nanocrystals. Chemical Physics, 2005, 318, 71-81.	1.9	78