Lioz Etgar

List of Publications by Year
in descending order

122 papers	8,316 citations	57752 44 h-index	45310 90 g-index
125 all docs	125 docs citations	125 times ranked	10591 citing authors

#	Article	IF	Citations
1	Mesoscopic CH₃NH₃PbI₃/TiO₂ Heterojunction Solar Cells. Journal of the American Chemical Society, 2012, 134, 17396-17399.	13.7	1,801
2	Depleted hole conductor-free lead halide iodide heterojunction solar cells. Energy and Environmental Science, 2013, 6, 3249.	30.8	702
3	Temperature- and Component-Dependent Degradation of Perovskite Photovoltaic Materials under Concentrated Sunlight. Journal of Physical Chemistry Letters, 2015, 6, 326-330.	4.6	472
4	Depletion region effect of highly efficient hole conductor free CH₃NH₃PbI₃perovskite solar cells. Physical Chemistry Chemical Physics, 2014, 16, 10512-10518.	2.8	252
5	Hybrid Lead Halide Iodide and Lead Halide Bromide in Efficient Hole Conductor Free Perovskite Solar Cell. Journal of Physical Chemistry C, 2014, 118, 17160-17165.	3.1	211
6	Depleted Bulk Heterojunction Colloidal Quantum Dot Photovoltaics. Advanced Materials, 2011, 23, 3134-3138.	21.0	206
7	The merit of perovskite's dimensionality; can this replace the 3D halide perovskite?. Energy and Environmental Science, 2018, 11, 234-242.	30.8	196
8	Temperature dependence of hole conductor free formamidinium lead iodide perovskite based solar cells. Journal of Materials Chemistry A, 2015, 3, 9171-9178.	10.3	191
9	High Efficiency and High Open Circuit Voltage in Quasi 2D Perovskite Based Solar Cells. Advanced Functional Materials, 2017, 27, 1604733.	14.9	181
10	Two Dimensional Organometal Halide Perovskite Nanorods with Tunable Optical Properties. Nano Letters, 2016, 16, 3230-3235.	9.1	165
11	Kinetics of cesium lead halide perovskite nanoparticle growth; focusing and de-focusing of size distribution. Nanoscale, 2016, 8, 6403-6409.	5.6	164
12	Dionâ€“Jacobson Two-Dimensional Perovskite Solar Cells Based on Benzene Dimethanammonium Cation. Nano Letters, 2019, 19, 2588-2597.	9.1	155
13	High Efficiency Quantum Dot Heterojunction Solar Cell Using Anatase (001) TiO₂ Nanosheets. Advanced Materials, 2012, 24, 2202-2206.	21.0	150
14	Current Density Mismatch in Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 2886-2888.	17.4	146
15	Light Energy Conversion by Mesoscopic PbS Quantum Dots/TiO₂ Heterojunction Solar Cells. ACS Nano, 2012, 6, 3092-3099.	14.6	132
16	Tunable Length and Optical Properties of CsPbX₃ (X = Cl, Br, I) Nanowires with a Few Unit Cells. Nano Letters, 2017, 17, 1007-1013.	9.1	129
17	Semitransparent Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 1519-1531.	17.4	118
18	Lowâ€Dimensional Organicâ€“Inorganic Halide Perovskite: Structure, Properties, and Applications. ChemSusChem, 2017, 10, 3712-3721.	6.8	100

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19	Core/Shell PbSe/PbS QDs TiO₂ Heterojunction Solar Cell. Advanced Functional Materials, 2013, 23, 2736-2741.	14.9	99
20	High efficiency quasi 2D lead bromide perovskite solar cells using various barrier molecules. Sustainable Energy and Fuels, 2017, 1, 1935-1943.	4.9	96
21	Parameters influencing the deposition of methylammonium lead halide iodide in hole conductor free perovskite-based solar cells. APL Materials, 2014, 2, .	5.1	93
22	Inorganic and Hybrid Organoâ€Metal Perovskite Nanostructures: Synthesis, Properties, and Applications. Advanced Functional Materials, 2016, 26, 8576-8593.	14.9	92
23	The electronic structure of metal oxide/organo metal halide perovskite junctions in perovskite based solar cells. Scientific Reports, 2015, 5, 8704.	3.3	91
24	Effect of Interfacial Engineering in Solidâ€State Nanostructured Sb₂S₃ Heterojunction Solar Cells. Advanced Energy Materials, 2013, 3, 29-33.	19.5	85
25	Near ultra-violet to mid-visible band gap tuning of mixed cation Rb_xCs_{1âˆ’x}PbX₃ (X = Cl or Br) perovskite nanoparticles. Nanoscale, 2018, 10, 6060-6068.	5.6	82
26	Free Carrier Emergence and Onset of Electronâ€“Phonon Coupling in Methylammonium Lead Halide Perovskite Films. Journal of the American Chemical Society, 2017, 139, 18262-18270.	13.7	78
27	Ga³⁺ and Y³⁺ Cationic Substitution in Mesoporous TiO₂ Photoanodes for Photovoltaic Applications. Journal of Physical Chemistry C, 2011, 115, 9232-9240.	3.1	73
28	A hybrid lead iodide perovskite and lead sulfide QD heterojunction solar cell to obtain a panchromatic response. Journal of Materials Chemistry A, 2014, 2, 11586-11590.	10.3	73
29	Semiconductor Nanocrystals as Light Harvesters in Solar Cells. Materials, 2013, 6, 445-459.	2.9	69
30	Effect of Perovskite Thickness on Electroluminescence and Solar Cell Conversion Efficiency. Journal of Physical Chemistry Letters, 2020, 11, 8189-8194.	4.6	68
31	Effect of Cs on the Stability and Photovoltaic Performance of 2D/3D Perovskite-Based Solar Cells. ACS Energy Letters, 2018, 3, 366-372.	17.4	64
32	High voltage in hole conductor free organo metal halide perovskite solar cells. Journal of Materials Chemistry A, 2014, 2, 20776-20781.	10.3	62
33	Effect of Halide Composition on the Photochemical Stability of Perovskite Photovoltaic Materials. ChemSusChem, 2016, 9, 2572-2577.	6.8	62
34	Selfâ€Assembly of Perovskite for Fabrication of Semitransparent Perovskite Solar Cells. Advanced Materials Interfaces, 2015, 2, 1500118.	3.7	61
35	Impact of Antisolvent Treatment on Carrier Density in Efficient Hole-Conductor-Free Perovskite-Based Solar Cells. Journal of Physical Chemistry C, 2016, 120, 142-147.	3.1	61
36	Methylammoniumâ€Mediated Evolution of Mixedâ€Organicâ€Cation Perovskite Thin Films: A Dynamic Compositionâ€Tuning Process. Angewandte Chemie - International Edition, 2017, 56, 7674-7678.	13.8	59

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37	Enhancing Stability and Photostability of CsPbI₃ by Reducing Its Dimensionality. Chemistry of Materials, 2018, 30, 8017-8024.	6.7	59
38	Environmentalâ€Friendly Polymer for Efficient and Stable Inverted Perovskite Solar Cells with Mitigating Lead Leakage. Advanced Functional Materials, 2022, 32, .	14.9	59
39	Enhancing the efficiency of a dye sensitized solar cell due to the energy transfer between CdSe quantum dots and a designed squaraine dye. RSC Advances, 2012, 2, 2748.	3.6	56
40	Organo-metal perovskite based solar cells: sensitized versus planar architecture. RSC Advances, 2014, 4, 29012-29021.	3.6	55
41	Flexible Perovskite Solar Cells: From Materials and Device Architectures to Applications. ACS Energy Letters, 2022, 7, 1412-1445.	17.4	54
42	Fully 2D and 3D printed anisotropic mechanoluminescent objects and their application for energy harvesting in the dark. Materials Horizons, 2018, 5, 708-714.	12.2	53
43	Parameters that control and influence the organo-metal halide perovskite crystallization and morphology. Frontiers of Optoelectronics, 2016, 9, 44-52.	3.7	50
44	An efficient DSSC based on ZnO nanowire photo-anodes and a new D-Ï€-A organic dye. Energy and Environmental Science, 2011, 4, 2903.	30.8	49
45	Micrometer Sized Perovskite Crystals in Planar Hole Conductor Free Solar Cells. Journal of Physical Chemistry C, 2015, 119, 19722-19728.	3.1	45
46	Hierarchical Conjugate Structure of Î³-Fe2O3Nanoparticles and PbSe Quantum Dots for Biological Applications. Journal of Physical Chemistry C, 2007, 111, 6238-6244.	3.1	42
47	High Open Circuit Voltage in Sb₂S₃/Metal Oxide-Based Solar Cells. Journal of Physical Chemistry C, 2015, 119, 12904-12909.	3.1	41
48	Hole-transport material-free perovskite-based solar cells. MRS Bulletin, 2015, 40, 674-680.	3.5	39
49	Spatially Heterogeneous Chlorine Incorporation in Organicâ€"Inorganic Perovskite Solar Cells. Chemistry of Materials, 2016, 28, 6536-6543.	6.7	39
50	The Effect of the Alkylammonium Ligandâ€™s Length on Organicâ€"Inorganic Perovskite Nanoparticles. ACS Energy Letters, 2018, 3, 1387-1393.	17.4	39
51	Reflectivity Effects on Pumpâ€"Probe Spectra of Lead Halide Perovskites: Comparing Thin Films <i>versus</i> Nanocrystals. ACS Nano, 2018, 12, 5719-5725.	14.6	35
52	Enhancing the open circuit voltage of dye sensitized solar cells by surface engineering of silica particles in a gel electrolyte. Journal of Materials Chemistry A, 2013, 1, 10142.	10.3	33
53	CH₃NH₂ gas induced (110) preferred cesium-containing perovskite films with reduced PbI₆ octahedron distortion and enhanced moisture stability. Journal of Materials Chemistry A, 2017, 5, 4803-4808.	10.3	33
54	Studying the Effect of MoO₃ in Hole-Conductor-Free Perovskite Solar Cells. ACS Energy Letters, 2018, 3, 2240-2245.	17.4	33

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55	Parameters Influencing the Growth of ZnO Nanowires as Efficient Low Temperature Flexible Perovskite-Based Solar Cells. Materials, 2016, 9, 60.	2.9	32
56	Inhibiting metal-inward diffusion-induced degradation through strong chemical coordination toward stable and efficient inverted perovskite solar cells. Energy and Environmental Science, 2022, 15, 2154-2163.	30.8	30
57	Fabrication of Perovskite Solar Cells with Digital Control of Transparency by Inkjet Printing. ACS Applied Materials & Interfaces, 2021, 13, 30524-30532.	8.0	29
58	Semitransparent Perovskite Solar Cells with > 13% Efficiency and 27% Transperancy Using Plasmonic Au Nanorods. ACS Applied Materials & Interfaces, 2022, 14, 11339-11349.	8.0	29
59	Design and Development of Novel Linker for PbS Quantum Dots/TiO₂ Mesoscopic Solar cell. ACS Applied Materials & Interfaces, 2011, 3, 3264-3267.	8.0	28
60	New insights into exciton binding and relaxation from high time resolution ultrafast spectroscopy of CH3NH3PbI3and CH3NH3PbBr3films. Journal of Materials Chemistry A, 2016, 4, 3546-3553.	10.3	28
61	The Relationship between Chemical Flexibility and Nanoscale Charge Collection in Hybrid Halide Perovskites. Advanced Functional Materials, 2018, 28, 1706995.	14.9	28
62	Cell refinement of CsPbBr₃ perovskite nanoparticles and thin films. Nanoscale Advances, 2019, 1, 147-153.	4.6	28
63	Fully functional semi-transparent perovskite solar cell fabricated in ambient air. Sustainable Energy and Fuels, 2017, 1, 2120-2127.	4.9	27
64	Electrical Characterization of Individual Cesium Lead Halide Perovskite Nanowires Using Conductive AFM. Advanced Materials, 2020, 32, e1907812.	21.0	23
65	Hot dipping post treatment for improved efficiency in micro patterned semi-transparent perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 23787-23796.	10.3	21
66	The effect of TiO₂ surface on the electron injection efficiency in PbS quantum dot solar cells: a first-principles study. Physical Chemistry Chemical Physics, 2015, 17, 6076-6086.	2.8	20
67	Hydroxyl Functional Groups in Two-Dimensional Dionâ€"Jacobson Perovskite Solar Cells. ACS Energy Letters, 2022, 7, 217-225.	17.4	20
68	Unusually Strong Biexciton Repulsion Detected in Quantum Confined CsPbBr₃ Nanocrystals with Two and Three Pulse Femtosecond Spectroscopy. ACS Nano, 2021, 15, 9039-9047.	14.6	19
69	Investigation of Interfacial Charge Separation at PbS QDs/(001) TiO₂Nanosheets Heterojunction Solar Cell. Particle and Particle Systems Characterization, 2015, 32, 483-488.	2.3	17
70	A mesoporousâ€"planar hybrid architecture of methylammonium lead iodide perovskite based solar cells. Journal of Materials Chemistry A, 2016, 4, 14423-14429.	10.3	17
71	Biasâ€Dependent Stability of Perovskite Solar Cells Studied Using Natural and Concentrated Sunlight. Solar Rrl, 2020, 4, 1900335.	5.8	17
72	Affecting an Ultraâ€High Work Function of Silver. Angewandte Chemie - International Edition, 2020, 59, 4698-4704.	13.8	15

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73	Evolution of Photovoltaic Performance in Fully Printable Mesoscopic Carbonâ€Based Perovskite Solar Cells. Energy Technology, 2019, 7, 1900481.	3.8	14
74	Two-dimensional or passivation treatment: the effect of hexylammonium post deposition treatment on 3D halide perovskite-based solar cells. Materials Advances, 2021, 2, 2617-2625.	5.4	14
75	Methylammoniumâ€Mediated Evolution of Mixedâ€Organicâ€Cation Perovskite Thin Films: A Dynamic Compositionâ€Tuning Process. Angewandte Chemie, 2017, 129, 7782-7786.	2.0	12
76	First evidence of macroscale single crystal ion exchange found in lead halide perovskites. EcoMat, 2020, 2, e12016.	11.9	12
77	Optical and Magnetic Properties of Conjugate Structures of PbSe Quantum Dots and Î³â€Fe₂O₃ Nanoparticles. ChemPhysChem, 2009, 10, 2235-2241.	2.1	11
78	Novel rubidium lead chloride nanocrystals: synthesis and characterization. Nano Futures, 2017, 1, 021002.	2.2	11
79	Fine-tuning of the metal work function by molecular doping. Chemical Communications, 2018, 54, 7203-7206.	4.1	11
80	Fully Inorganic Mixed Cation Lead Halide Perovskite Nanoparticles: A Study at the Atomic Level. Chemistry of Materials, 2020, 32, 1467-1474.	6.7	11
81	Photovoltaic Recovery of All Printable Mesoporousâ€Carbonâ€based Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100028.	5.8	11
82	Multimodal Approach towards Large Area Fully Semitransparent Perovskite Solar Module. Advanced Energy Materials, 2021, 11, 2102276.	19.5	11
83	Reducing recombination in ZnO photoanodes for dye sensitised solar cells through simple chemical synthesis. Journal of Materials Chemistry, 2012, 22, 24463.	6.7	9
84	Critical Role of Removing Impurities in Nickel Oxide on Highâ€Efficiency and Longâ€Term Stability of Inverted Perovskite Solar Cells. Angewandte Chemie, 2022, 134, .	2.0	9
85	Structural and Quantitative Investigation of Perovskite Pore Filling in Mesoporous Metal Oxides. Crystals, 2016, 6, 149.	2.2	8
86	Green energy by recoverable triple-oxide mesostructured perovskite photovoltaics. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 31010-31017.	7.1	8
87	Electrical and chemical properties of vacancy-ordered lead free layered double perovskite nanoparticles. Nanoscale, 2022, 14, 3487-3495.	5.6	8
88	Study of Electron Transport Layerâ€Free and Hole Transport Layerâ€Free Inverted Perovskite Solar Cells. Solar Rrl, 2022, 6, 2100578.	5.8	7
89	Synthesis of water-soluble PbSe quantum dots. Journal of Materials Research, 2008, 23, 899-903.	2.6	6
90	Controlling the anisotropic magnetic dipolar interactions of PbSe self-assembled nanoparticles on GaAs. Physical Chemistry Chemical Physics, 2009, 11, 7549.	2.8	6

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91	A new approach to modelling Kelvin probe force microscopy of hetero-structures in the dark and under illumination. Optical and Quantum Electronics, 2018, 50, 1.	3.3	6
92	Tuning the Optical Properties of Already Crystalized Hybrid Perovskite. Solar Rrl, 2019, 3, 1900128.	5.8	5
93	The properties, photovoltaic performance and stability of visible to near-IR all inorganic perovskites. Materials Advances, 2020, 1, 1920-1929.	5.4	5
94	Effect of Interfacial Engineering in Solidâ€State Nanostructured Sb₂S₃ Heterojunction Solar Cells (Adv. Energy Mater. 1/2013). Advanced Energy Materials, 2013, 3, 28-28.	19.5	4
95	CsPbBr₃ and CH₃NH₃PbBr₃ promote visible-light photo-reactivity. Physical Chemistry Chemical Physics, 2018, 20, 16847-16852.	2.8	4
96	Indication of CsPbBr₃ inclusions in zero dimensional Cs₄PbBr₆ perovskite single crystals by alkylammonium postâ€treatment. Nano Select, 2021, 2, 83-89.	3.7	4
97	Ruddlesdenâ€“Popper 2D Chiral Perovskiteâ€Based Solar Cells. Small Structures, 2022, 3, .	12.0	4
98	Trajectory control of PbSeâ€“Î³-Fe2O3nanoplatforms under viscous flow and an external magnetic field. Nanotechnology, 2010, 21, 175702.	2.6	3
99	Conductive molecularly doped gold films. Journal of Materials Chemistry C, 2016, 4, 11548-11556.	5.5	3
100	Formation of Semiconducting Supramolecular Fullerene Aggregates in a Dipeptide Organogel. Advanced Materials Technologies, 2020, 5, 1900829.	5.8	3
101	Solution-based low-temperature CsPbI₃ nanoparticle perovskite solar cells. Materials Advances, 2022, 3, 1737-1746.	5.4	3
102	Multifunctional Additive (Lâ€4â€Fluorophenylalanine) for Efficient and Stable Inverted Perovskite Solar Cells. Solar Rrl, 0, , 2101101.	5.8	3
103	Ways to Improve the Performance of Tripleâ€Mesoscopic Holeâ€Conductorâ€Free Perovskiteâ€Based Solar Cells. Solar Rrl, 2022, 6, .	5.8	3
104	Energy Spotlight. ACS Energy Letters, 2021, 6, 3750-3752.	17.4	2
105	Controlling the device functionality by solvent engineering, solar cell <i>versus</i> light emitting diode. Journal of Materials Chemistry C, 2022, 10, 10037-10046.	5.5	2
106	A Solution-Processed Tetra-Alkoxylated Zinc Phthalocyanine as Hole Transporting Material for Emerging Photovoltaic Technologies. International Journal of Photoenergy, 2018, 2018, 1-9.	2.5	1
107	Energy Spotlight. ACS Energy Letters, 2021, 6, 2003-2005.	17.4	1
108	Understanding the distribution of chlorine in perovskite solar cells via x-ray fluorescence microscopyl. , 2016, , .		0

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109	Monitoring hot exciton dissociation in hybrid lead halide perovskite films with sub-10 fs pulses. EPJ Web of Conferences, 2019, 205, 06019.	0.3	0
110	Affecting an Ultraâ€High Work Function of Silver. Angewandte Chemie, 2020, 132, 4728-4734.	2.0	0
111	Targeting of PbSe-<I>Î³</I>-Fe₂O₃ Nanoplatforms by External Magnetic Field Under Viscous Flow Conditions. Sensor Letters, 2010, 8, 383-386.	0.4	0
112	Two Dimensional organic-inorganic perovskite from nanostructures to solar cells. , 0, , .		0
113	Stability of organic-inorganic perovskite photovoltaic materials and devices under natural- and concentrated- sunlight. , 0, , .		0
114	Low Dimensional Perovskite: Stability, Solar Cells and Nanostructures. , 0, , .		0
115	Gauging Photorefractive Effects on Transient Absorption in Lead Iodide Perovskite Thin Films by Comparison to Nanocrystals.. , 0, , .		0
116	Bias-Dependent Stability of Perovskite Solar Cells: Degradation Mechanisms Reconsidered. , 0, , .		0
117	Hot Dipping Post Treatment for Improved Efficiency in Micro Patterned Semitransparent Perovskite Solar Cell. , 0, , .		0
118	Halide Exchange in Solid State Mixed Cation Hybrid Perovskite. , 0, , .		0
119	Ultrafast Investigation of Lead Halide Perovskite Nanocrystals and Thin Films. , 0, , .		0
120	Holistic Approach Towards Fully Semi-transparent 21 cm2 Perovskite Solar Module with 9.5% Efficiency. , 0, , .		0
121	Bifacial Fully printable low dimensional perovskite solar cells. , 0, , .		0
122	Formamidinium Halide Perovskite and Carbon Nitride Thin Films Enhance Photoreactivity under Visible Light Excitation. Journal of Physical Chemistry A, 0, , .	2.5	0