Daniel Prochowicz

List of Publications by Year
in descending order

97 papers	5,034 citations	109137 35 h-index	95083 68 g-index
104 all docs	104 docs citations	104 times ranked	6113 citing authors

#	Article	IF	Citations
1	Europium-Doped CsPbI2Br for Stable and Highly Efficient Inorganic Perovskite Solar Cells. Joule, 2019, 3, 205-214.	11.7	387
2	Phase Segregation in Cs-, Rb- and K-Doped Mixed-Cation (MA)_{<i>x</i>}(FA)_{1â€“<i>x</i>}PbI₃ Hybrid Perovskites from Solid-State NMR. Journal of the American Chemical Society, 2017, 139, 14173-14180.	6.6	317
3	Interactions of Native Cyclodextrins with Metal Ions and Inorganic Nanoparticles: Fertile Landscape for Chemistry and Materials Science. Chemical Reviews, 2017, 117, 13461-13501.	23.0	238
4	Formation of Stable Mixed Guanidiniumâ€“Methylammonium Phases with Exceptionally Long Carrier Lifetimes for High-Efficiency Lead Iodide-Based Perovskite Photovoltaics. Journal of the American Chemical Society, 2018, 140, 3345-3351.	6.6	235
5	A review of aspects of additive engineering in perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 27-54.	5.2	232
6	Controllable Perovskite Crystallization via Antisolvent Technique Using Chloride Additives for Highly Efficient Planar Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1803587.	10.2	221
7	Cation Dynamics in Mixed-Cation (MA)_{<i>x</i>}(FA)_{1â€“<i>x</i>}PbI₃ Hybrid Perovskites from Solid-State NMR. Journal of the American Chemical Society, 2017, 139, 10055-10061.	6.6	209
8	Mechanosynthesis of the hybrid perovskite CH₃NH₃PbI₃: characterization and the corresponding solar cell efficiency. Journal of Materials Chemistry A, 2015, 3, 20772-20777.	5.2	163
9	Phase Segregation in Potassium-Doped Lead Halide Perovskites from ³⁹K Solid-State NMR at 21.1 T. Journal of the American Chemical Society, 2018, 140, 7232-7238.	6.6	130
10	A mechanochemical strategy for IRMOF assembly based on pre-designed oxo-zinc precursors. Chemical Communications, 2015, 51, 4032-4035.	2.2	117
11	Atomic-Level Microstructure of Efficient Formamidinium-Based Perovskite Solar Cells Stabilized by 5-Ammonium Valeric Acid Iodide Revealed by Multinuclear and Two-Dimensional Solid-State NMR. Journal of the American Chemical Society, 2019, 141, 17659-17669.	6.6	104
12	Engineering of Perovskite Materials Based on Formamidinium and Cesium Hybridization for High-Efficiency Solar Cells. Chemistry of Materials, 2019, 31, 1620-1627.	3.2	99
13	One-step mechanochemical incorporation of an insoluble cesium additive for high performance planar heterojunction solar cells. Nano Energy, 2018, 49, 523-528.	8.2	95
14	Understanding the effect of chlorobenzene and isopropanol anti-solvent treatments on the recombination and interfacial charge accumulation in efficient planar perovskite solar cells. Journal of Materials Chemistry A, 2018, 6, 14307-14314.	5.2	94
15	Decoupling the effects of defects on efficiency and stability through phosphonates in stable halide perovskite solar cells. Joule, 2021, 5, 1246-1266.	11.7	91
16	Mechanoperovskites for Photovoltaic Applications: Preparation, Characterization, and Device Fabrication. Accounts of Chemical Research, 2019, 52, 3233-3243.	7.6	79
17	Mechanosynthesis of pure phase mixed-cation MA_xFA_{1âˆ’x}PbI₃hybrid perovskites: photovoltaic performance and electrochemical properties. Sustainable Energy and Fuels, 2017, 1, 689-693.	2.5	78
18	Reduction in the Interfacial Trap Density of Mechanochemically Synthesized MAPbI₃. ACS Applied Materials & Interfaces, 2017, 9, 28418-28425.	4.0	73

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19	Zinc hydroxides and oxides supported by organic ligands: Synthesis and structural diversity. Coordination Chemistry Reviews, 2014, 270-271, 112-126.	9.5	69
20	Highly efficient and stable inverted perovskite solar cells using down-shifting quantum dots as a light management layer and moisture-assisted film growth. Journal of Materials Chemistry A, 2019, 7, 14753-14760.	5.2	67
21	Local Structure and Dynamics in Methylammonium, Formamidinium, and Cesium Tin(II) Mixed-Halide Perovskites from ¹¹⁹Sn Solid-State NMR. Journal of the American Chemical Society, 2020, 142, 7813-7826.	6.6	66
22	Trinuclear Cageâ€Like Zn^{II} Macrocyclic Complexes: Enantiomeric Recognition and Gas Adsorption Properties. Chemistry - A European Journal, 2016, 22, 598-609.	1.7	64
23	Molecularly Imprinted Polymer (MIP) Film with Improved Surface Area Developed by Using Metalâ€“Organic Framework (MOF) for Sensitive Lipocalin (NGAL) Determination. ACS Applied Materials & Interfaces, 2016, 8, 19860-19865.	4.0	61
24	Elucidation of Charge Recombination and Accumulation Mechanism in Mixed Perovskite Solar Cells. Journal of Physical Chemistry C, 2018, 122, 15149-15154.	1.5	59
25	Doping and phase segregation in Mn²⁺- and Co²⁺-doped lead halide perovskites from¹³³Cs and¹H NMR relaxation enhancement. Journal of Materials Chemistry A, 2019, 7, 2326-2333.	5.2	59
26	Metal complexes based on native cyclodextrins: Synthesis and structural diversity. Coordination Chemistry Reviews, 2016, 306, 331-345.	9.5	55
27	Suppressing recombination in perovskite solar cells via surface engineering of TiO2 ETL. Solar Energy, 2020, 197, 50-57.	2.9	53
28	Permanent Porosity Derived From the Selfâ€Assembly of Highly Luminescent Molecular Zinc Carbonate Nanoclusters. Angewandte Chemie - International Edition, 2013, 52, 13414-13418.	7.2	46
29	Reducing ion migration in methylammonium lead tri-bromide single crystal via lead sulfate passivation. Journal of Applied Physics, 2020, 127, .	1.1	46
30	Cinchona Alkaloidâ€“Metal Complexes: Noncovalent Porous Materials with Unique Gas Separation Properties. Angewandte Chemie - International Edition, 2010, 49, 7035-7039.	7.2	45
31	Construction of a Porous Homochiral Coordination Polymer with Two Types of Cu_{<i>n</i>}I_{<i>n</i>} Alternating Units Linked by Quinine: A Solvothermal and a Mechanochemical Approach. Chemistry - A European Journal, 2012, 18, 7367-7371.	1.7	44
32	Supramolecular Control over Molecular Magnetic Materials: Î³-Cyclodextrin-Templated Grid of Cobalt(II) Single-Ion Magnets. Inorganic Chemistry, 2014, 53, 12870-12876.	1.9	44
33	Halide Mixing and Phase Segregation in Cs₂AgBiX₆ (X = Cl, Br, and I) Double Perovskites from Cesium-133 Solid-State NMR and Optical Spectroscopy. Chemistry of Materials, 2020, 32, 8129-8138.	3.2	44
34	Ambient Stable and Efficient Monolithic Tandem Perovskite/PbS Quantum Dots Solar Cells via Surface Passivation and Light Management Strategies. Advanced Functional Materials, 2021, 31, 2010623.	7.8	44
35	Influence of A-site cations on the open-circuit voltage of efficient perovskite solar cells: a case of rubidium and guanidinium additives. Journal of Materials Chemistry A, 2019, 7, 8218-8225.	5.2	43
36	Surface Treatment of Perovskite Layer with Guanidinium Iodide Leads to Enhanced Moisture Stability and Improved Efficiency of Perovskite Solar Cells. Advanced Materials Interfaces, 2020, 7, 2000105.	1.9	39

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37	Oxozinc Carboxylate Complexes: A New Synthetic Approach and the Carboxylate Ligand Effect on the Noncovalent-Interactions-Driven Self-Assembly. Inorganic Chemistry, 2012, 51, 7410-7414.	1.9	38
38	Facile Mechanosynthesis of the Archetypal Zn-Based Metalâ€“Organic Frameworks. Inorganic Chemistry, 2018, 57, 13437-13442.	1.9	36
39	Elucidation of the role of guanidinium incorporation in single-crystalline MAPbI₃ perovskite on ion migration and activation energy. Physical Chemistry Chemical Physics, 2020, 22, 11467-11473.	1.3	36
40	Recent Progress in Growth of Single-Crystal Perovskites for Photovoltaic Applications. ACS Omega, 2021, 6, 1030-1042.	1.6	35
41	Intrinsic and interfacial kinetics of perovskite solar cells under photo and bias-induced degradation and recovery. Journal of Materials Chemistry C, 2017, 5, 7799-7805.	2.7	34
42	Oxygen Plasma-Induced p-Type Doping Improves Performance and Stability of PbS Quantum Dot Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 26047-26052.	4.0	33
43	Interpretation of Resistance, Capacitance, Defect Density, and Activation Energy Levels in Single-Crystalline MAPbI₃. Journal of Physical Chemistry C, 2020, 124, 3496-3502.	1.5	33
44	Efficient, Hysteresisâ€Free, and Flexible Inverted Perovskite Solar Cells Using Allâ€Vacuum Processing. Solar Rrl, 2021, 5, .	3.1	33
45	Surface modification of a hole transporting layer for an efficient perovskite solar cell with an enhanced fill factor and stability. Molecular Systems Design and Engineering, 2018, 3, 717-722.	1.7	31
46	Changes in the Electrical Characteristics of Perovskite Solar Cells with Aging Time. Molecules, 2020, 25, 2299.	1.7	31
47	Effect of CsCl Additive on the Morphological and Optoelectronic Properties of Formamidinium Lead Iodide Perovskite. Solar Rrl, 2019, 3, 1900294.	3.1	30
48	Atomic Layer Deposition of an Effective Interface Layer of TiN for Efficient and Hysteresis-Free Mesoscopic Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 8098-8106.	4.0	30
49	Metal Halide Perovskites for Energy Storage Applications. European Journal of Inorganic Chemistry, 2021, 2021, 1201-1212.	1.0	29
50	Oxozinc carboxylates: a predesigned platform for modelling prototypical Zn-MOFs' reactivity toward water and donor solvents. Chemical Communications, 2012, 48, 7362.	2.2	28
51	Development of all-inorganic lead halide perovskites for carbon dioxide photoreduction. Renewable and Sustainable Energy Reviews, 2021, 145, 111047.	8.2	28
52	Is machine learning redefining the perovskite solar cells?. Journal of Energy Chemistry, 2022, 66, 74-90.	7.1	27
53	Charge Accumulation, Recombination, and Their Associated Time Scale in Efficient (GUA)<i>_x</i>(MA)_{1â€“<i>x</i>}PbI₃-Based Perovskite Solar Cells. ACS Omega, 2019, 4, 16840-16846.	1.6	25
54	Mechanosynthesis, Optical, and Morphological Properties of MA, FA, Csâ€SnX₃ (X = I, Br) and Phaseâ€Pure Mixedâ€Halide MASnI<i>_x</i>Br₃_{â€“<i>x</i>} Perovskites. European Journal of Inorganic Chemistry, 2019, 2019, 2680-2684.	1.0	25

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55	Zinc Stannate Nanorod as an Electron Transporting Layer for Highly Efficient and Hysteresis-less Perovskite Solar Cells. Engineered Science, 2018, , .	1.2	25
56	Interfacial Kinetics of Efficient Perovskite Solar Cells. Crystals, 2017, 7, 252.	1.0	24
57	Effect of bromine doping on the charge transfer, ion migration and stability of the single crystalline MAPb(Br_{<i>x</i>}I_{1â^’<i>x</i>})₃ photodetector. Journal of Materials Chemistry C, 2021, 9, 15189-15200.	2.7	23
58	Correlation of recombination and open circuit voltage in planar heterojunction perovskite solar cells. Journal of Materials Chemistry C, 2019, 7, 1273-1279.	2.7	22
59	Tuning Areal Density and Surface Passivation of ZnO Nanowire Array Enable Efficient PbS QDs Solar Cells with Enhanced Current Density. Advanced Materials Interfaces, 2020, 7, 1901551.	1.9	22
60	Double layer mesoscopic electron contact for efficient perovskite solar cells. Sustainable Energy and Fuels, 2020, 4, 843-851.	2.5	22
61	Thiocyanate-Passivated Diaminonaphthalene-Incorporated Dionâ€“Jacobson Perovskite for Highly Efficient and Stable Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 850-860.	4.0	22
62	Straightforward Synthesis of Single-Crystalline and Redox-Active Cr(II)-carboxylate MOFs. Inorganic Chemistry, 2018, 57, 4803-4806.	1.9	21
63	¹¹³Cd Solid-State NMR at 21.1 T Reveals the Local Structure and Passivation Mechanism of Cadmium in Hybrid and All-Inorganic Halide Perovskites. ACS Energy Letters, 2020, 5, 2964-2971.	8.8	20
64	Mesoscopic TiO₂/Nb₂O₅ Electron Transfer Layer for Efficient and Stable Perovskite Solar Cells. Advanced Materials Interfaces, 2021, 8, 2100177.	1.9	20
65	Multilayer evaporation of MAFAPbI_{3â^’<i>x</i>}Cl_{<i>x</i>} for the fabrication of efficient and large-scale device perovskite solar cells. Journal Physics D: Applied Physics, 2019, 52, 034005.	1.3	19
66	Development of chiral N,N-ditopic metalloligands based on a Cinchona alkaloids' backbone for constructing homochiral coordination polymers. Chemical Communications, 2011, 47, 950-952.	2.2	18
67	Blue and red wavelength resolved impedance response of efficient perovskite solar cells. Sustainable Energy and Fuels, 2018, 2, 2407-2411.	2.5	18
68	Luminescence down-shifting enables UV-stable and efficient ZnO nanowire-based PbS quantum dot solar cells with <i>J</i>_{SC} exceeding 33 mA cm^{â^’2}. Sustainable Energy and Fuels, 2019, 3, 3128-3134.	2.5	18
69	In the Quest of Lowâ€Frequency Impedance Spectra of Efficient Perovskite Solar Cells. Energy Technology, 2021, 9, 2100229.	1.8	16
70	Atomic Layer Engineering of Aluminumâ€Doped Zinc Oxide Films for Efficient and Stable Perovskite Solar Cells. Advanced Materials Interfaces, 2022, 9, .	1.9	16
71	Development of an SBUâ€Based Mechanochemical Approach for Drugâ€Loaded MOFs. European Journal of Inorganic Chemistry, 2020, 2020, 796-800.	1.0	14
72	Gold Nanoparticles Functionalized with Fullerene Derivative as an Effective Interface Layer for Improving the Efficiency and Stability of Planar Perovskite Solar Cells. Advanced Materials Interfaces, 2020, 7, 2001144.	1.9	14

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73	Role of the spacer cation in the growth and crystal orientation of two-dimensional perovskites. Sustainable Energy and Fuels, 2021, 5, 1255-1279.	2.5	14
74	Two-dimensional halide perovskite single crystals: principles and promises. Emergent Materials, 2021, 4, 865-880.	3.2	14
75	New Insights into Cinchonineâ€“Aluminium Complexes and Their Application as Chiral Building Blocks: Unprecedented Ligandâ€Exchange Processes in the Presence of ZnR₂ Compounds. Chemistry - A European Journal, 2012, 18, 13460-13465.	1.7	13
76	Azahomofullerenes as New n-Type Acceptor Materials for Efficient and Stable Inverted Planar Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 20296-20304.	4.0	13
77	Efficient Perovskite Solar Cells Based on CdSe/ZnS Quantum Dots Electron Transporting Layer with Superior UV Stability. Physica Status Solidi - Rapid Research Letters, 2020, 14, 2000062.	1.2	11
78	Interface Engineering of Mesoscopic Perovskite Solar Cells by Atomic Layer Deposition of Ta₂O₅. ACS Applied Energy Materials, 2021, 4, 10433-10441.	2.5	9
79	A solvothermal and mechanochemical strategy for the construction of chiral N,N-ditopic metalloligands: oxygenation process of a Cu(I)X/quinine system. Inorganic Chemistry Communication, 2014, 46, 216-218.	1.8	8
80	Structure investigations of group 13 organometallic carboxylates. Dalton Transactions, 2017, 46, 669-677.	1.6	8
81	Synergistic ligand exchange and UV curing of PbS quantum dots for effective surface passivation. Nanoscale, 2019, 11, 22832-22840.	2.8	8
82	Investigation on the Facet-Dependent Anisotropy in Halide Perovskite Single Crystals. Journal of Physical Chemistry C, 2022, 126, 8906-8912.	1.5	7
83	A New Look on Octet-Compliant Macrocyclic Organoaluminum Carboxylates as Dormant Poly-Lewis Acids. European Journal of Inorganic Chemistry, 2020, 2020, 119-127.	1.0	6
84	Recent Progress of Light Intensityâ€Modulated Small Perturbation Techniques in Perovskite Solar Cells. Physica Status Solidi - Rapid Research Letters, 2022, 16, .	1.2	6
85	Efficient and Lessâ€Toxic Indiumâ€Doped MAPbI₃ Perovskite Solar Cells Prepared by Metal Alloying Technique. Solar Rrl, 2022, 6, .	3.1	6
86	Synthesis and Structure of an Arylmanganese(II) 8â€Hydroxyquinolinate Tetranuclear Cluster. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2014, 640, 2427-2430.	0.6	5
87	Identifying dominant recombination mechanisms in spiro-based conventional perovskite solar cells: Roles of interface and bulk recombination. Energy Reports, 2022, 8, 7957-7963.	2.5	5
88	Toward Coordination Polymers Based on Fine-Tunable Group 13 Organometallic Phthalates. Inorganic Chemistry, 2014, 53, 7270-7275.	1.9	4
89	Assemblies Based on Schiff Base Chemistry. , 2017, , 279-304.		4
90	Synthesis, structure and magnetic properties of a novel high-nuclearity oxo-carboxylate [Zn_xCo_{13â€“x}(Î¼₄-O)₄(O₂CPh)₁₈] cluster. Dalton Transactions, 2019, 48, 12828-12831.	1.6	4

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91	Tetrahedral M₄(Î¼₄-O) Motifs Beyond Zn: Efficient One-Pot Synthesis of Oxidoâ€“Amidate Clusters <i>via</i> a Transmetalation/Hydrolysis Approach. Inorganic Chemistry, 2022, 61, 7869-7877.	1.9	4
92	Synthesis, Structure, and Magnetic Properties of a Mononuclear Chiral (Acetato)bis(aminoalkoxido)manganese(III) Complex. European Journal of Inorganic Chemistry, 2017, 2017, 1392-1395.	1.0	3
93	A Dopantâ€Free Hole Transporting Layer for Efficient and Stable Planar Perovskite Solar Cells. Physica Status Solidi - Rapid Research Letters, 2020, 14, 2000147.	1.2	3
94	Hollow microtubes made of carbon, boron and gold: novel semiconducting nanocomposite material for applications in electrochemistry and temperature sensing. RSC Advances, 2015, 5, 64083-64090.	1.7	2
95	Cyclodextrin-Templated Co(II) Grids: Symmetry Control over Supramolecular Topology and Magnetic Properties. Inorganic Chemistry, 2022, 61, 2499-2508.	1.9	2
96	Band alignment and carrier recombination roles on the open circuit voltage of ETLâ€passivated perovskite photovoltaics. International Journal of Energy Research, 2022, 46, 6022-6030.	2.2	2
97	The microscopic mechanism of sodium doping in hybrid and all-inorganic halide perovskites. , 0, , .		1