Selina Olthof

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6640476/publications.pdf

Version: 2024-02-01

85 papers	4,904 citations	87843 38 h-index	91828 69 g-index
89 all docs	89 docs citations	89 times ranked	6928 citing authors

#	Article	IF	Citations
1	Absolute energy level positions in tin- and lead-based halide perovskites. Nature Communications, 2019, 10, 2560.	5.8	381
2	Suppressed decomposition of organometal halide perovskites by impermeable electron-extraction layers in inverted solar cells. Nature Communications, 2017, 8, 13938.	5.8	259
3	Substrate-dependent electronic structure and film formation of MAPbI3 perovskites. Scientific Reports, 2017, 7, 40267.	1.6	238
4	Ultralow Doping in Organic Semiconductors: Evidence of Trap Filling. Physical Review Letters, 2012, 109, 176601.	2.9	231
5	Influence of charge balance and exciton distribution on efficiency and lifetime of phosphorescent organic light-emitting devices. Journal of Applied Physics, 2008, 104, .	1.1	212
6	Mechanistic Study on the Solution-Phase n-Doping of 1,3-Dimethyl-2-aryl-2,3-dihydro-1‹i›H‹/i›-benzoimidazole Derivatives. Journal of the American Chemical Society, 2013, 135, 15018-15025.	6.6	202
7	Impact of mesoscale order on open-circuit voltage in organic solar cells. Nature Materials, 2015, 14, 434-439.	13.3	184
8	Zero-dimensional (CH3NH3)3Bi2I9 perovskite for optoelectronic applications. Solar Energy Materials and Solar Cells, 2016, 158, 195-201.	3.0	182
9	Perovskiteâ€“organic tandem solar cells with indium oxide interconnect. Nature, 2022, 604, 280-286.	13.7	181
10	Impact of Film Stoichiometry on the Ionization Energy and Electronic Structure of CH‹sub›3‹/sub›NH‹sub›3‹/sub›PbI‹sub›3‹/sub› Perovskites. Advanced Materials, 2016, 28, 553-559.	11.1	148
11	Roomâ€Temperature Stimulated Emission and Lasing in Recrystallized Cesium Lead Bromide Perovskite Thin Films. Advanced Materials, 2019, 31, e1903717.	11.1	148
12	Photoelectron spectroscopy study of systematically varied doping concentrations in an organic semiconductor layer using a molecular p-dopant. Journal of Applied Physics, 2009, 106, .	1.1	128
13	Origin of open circuit voltage in planar and bulk heterojunction organic thin-film photovoltaics depending on doped transport layers. Journal of Applied Physics, 2008, 104, 043107.	1.1	116
14	Interfacial Passivation Engineering of Perovskite Solar Cells with Fill Factor over 82% and Outstanding Operational Stability on n-i-p Architecture. ACS Energy Letters, 2021, 6, 3916-3923.	8.8	115
15	Roadmap on organicâ€“inorganic hybrid perovskite semiconductors and devices. APL Materials, 2021, 9, .	2.2	102
16	Photoinduced Hole Transfer Becomes Suppressed with Diminished Driving Force in Polymerâ€Fullerene Solar Cells While Electron Transfer Remains Active. Advanced Functional Materials, 2013, 23, 1238-1249.	7.8	101
17	Highly Crystalline and Semiconducting Imineâ€Based Twoâ€Dimensional Polymers Enabled by Interfacial Synthesis. Angewandte Chemie - International Edition, 2020, 59, 6028-6036.	7.2	98
18	Indiumâ€Free Perovskite Solar Cells Enabled by Impermeable Tinâ€Oxide Electron Extraction Layers. Advanced Materials, 2017, 29, 1606656.	11.1	88

#	Article	IF	Citations
19	Novel inorganic electron transport layers for planar perovskite solar cells: Progress and prospective. Nano Energy, 2020, 68, 104289.	8.2	83
20	Highly efficient white organic light-emitting diodes based on fluorescent blue emitters. Journal of Applied Physics, 2010, 108, .	1.1	78
21	Correlation of open-circuit voltage and energy levels in zinc-phthalocyanine: C<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>60</mml:mn></mml:msub></mml:math>bulk heterojunction solar cells with varied mixing ratio. Physical Review B, 2013, 88, .	1.1	71
22	Solution-Like Behavior of Photoswitchable Spiropyrans Embedded in Metalâ€“Organic Frameworks. Inorganic Chemistry, 2017, 56, 13100-13110.	1.9	70
23	Energy level alignment at the interfaces in a multilayer organic light-emitting diode structure. Physical Review B, 2009, 79, .	1.1	69
24	Electrospun Black Titania Nanofibers: Influence of Hydrogen Plasma-Induced Disorder on the Electronic Structure and Photoelectrochemical Performance. Journal of Physical Chemistry C, 2015, 119, 18835-18842.	1.5	68
25	Efficient perovskite solar cells via surface passivation by a multifunctional small organic ionic compound. Journal of Materials Chemistry A, 2020, 8, 8313-8322.	5.2	68
26	White top-emitting organic light-emitting diodes with forward directed emission and high color quality. Organic Electronics, 2010, 11, 1676-1682.	1.4	67
27	Highly doped layers as efficient electronâ€“hole recombination contacts for tandem organic solar cells. Journal of Applied Physics, 2010, 108, 033108.	1.1	66
28	Passivation of trap states in unpurified and purified C60 and the influence on organic field-effect transistor performance. Applied Physics Letters, 2012, 101, .	1.5	65
29	Research Update: The electronic structure of hybrid perovskite layers and their energetic alignment in devices. APL Materials, 2016, 4, .	2.2	58
30	How far does the defect tolerance of lead-halide perovskites range? The example of Bi impurities introducing efficient recombination centers. Journal of Materials Chemistry A, 2019, 7, 23838-23853.	5.2	57
31	Investigation of C60F36 as low-volatility p-dopant in organic optoelectronic devices. Journal of Applied Physics, 2011, 109, .	1.1	55
32	Impact of excess PbI₂ on the structure and the temperature dependent optical properties of methylammonium lead iodide perovskites. Journal of Materials Chemistry C, 2018, 6, 7512-7519.	2.7	54
33	Improvement of voltage and charge balance in inverted top-emitting organic electroluminescent diodes comprising doped transport layers by thermal annealing. Applied Physics Letters, 2011, 98, .	1.5	53
34	Efficient p-i-n type organic solar cells incorporating 1,4,5,8-naphthalenetetracarboxylic dianhydride as transparent electron transport material. Journal of Applied Physics, 2008, 104, 034506.	1.1	52
35	Nickel(II) and Copper(II) Coordination Polymers Derived from 1,2,4,5-Tetraaminobenzene for Lithium-Ion Batteries. Chemistry of Materials, 2019, 31, 5197-5205.	3.2	52
36	Solvent Engineering Using a Volatile Solid for Highly Efficient and Stable Perovskite Solar Cells. Advanced Science, 2020, 7, 1903250.	5.6	47

#	Article	IF	Citations
37	Self-doping and partial oxidation of metal-on-organic interfaces for organic semiconductor devices studied by chemical analysis techniques. Journal of Applied Physics, 2008, 104, .	1.1	40
38	The role of energy level matching in organic solar cellsâ€"Hexaazatriphenylene hexacarbonitrile as transparent electron transport material. Solar Energy Materials and Solar Cells, 2011, 95, 927-932.	3.0	40
39	Doped but Stable: Spirobisacridine Hole Transporting Materials for Hysteresis-Free and Stable Perovskite Solar Cells. Journal of the American Chemical Society, 2020, 142, 1792-1800.	6.6	39
40	Defects in CsPbX₃ Perovskite: From Understanding to Effective Manipulation for Highâ€Performance Solar Cells. Small Methods, 2021, 5, e2100725.	4.6	37
41	Does Electron Delocalization Influence Charge Separation at Donorâ€"Acceptor Interfaces in Organic Photovoltaic Cells?. Journal of Physical Chemistry C, 2018, 122, 21792-21802.	1.5	33
42	Impact of Titanium Dioxide Surface Defects on the Interfacial Composition and Energetics of Evaporated Perovskite Active Layers. ACS Applied Materials & Interfaces, 2019, 11, 32500-32508.	4.0	33
43	Beach-Chair-Shaped Energy Band Alignment for High-Performance Î²-CsPbI3 Solar Cells. Cell Reports Physical Science, 2020, 1, 100180.	2.8	28
44	Novel Photoactive Spirooxazine Based Switch@MOF Composite Materials. ChemPhotoChem, 2020, 4, 195-206.	1.5	27
45	Band-Gap Tuning in All-Inorganic CsPb_xSn_{1â€"x}Br₃ Perovskites. ACS Applied Materials & Interfaces, 2021, 13, 4203-4210.	4.0	24
46	Cyclopentadieneâ€Based Holeâ€Transport Material for Costâ€Reduced Stabilized Perovskite Solar Cells with Power Conversion Efficiencies Over 23%. Advanced Energy Materials, 2021, 11, 2003953.	10.2	24
47	Control of Surface Defects in ZnO Nanorod Arrays with Thermally Deposited Au Nanoparticles for Perovskite Photovoltaics. ACS Applied Energy Materials, 2019, 2, 3736-3748.	2.5	23
48	Reactive modification of zinc oxide with methylammonium iodide boosts the operational stability of perovskite solar cells. Nano Energy, 2021, 83, 105774.	8.2	22
49	Energy level alignment of electrically doped hole transport layers with transparent and conductive indium tin oxide and polymer anodes. Journal of Applied Physics, 2007, 102, 073719.	1.1	20
50	Bismuth-Antimony mixed double perovskites Cs2AgBi1â^'xSbxBr6 in solar cells. MRS Advances, 2019, 4, 3545-3552.	0.5	18
51	Highly Crystalline and Semiconducting Imineâ€Based Twoâ€Dimensional Polymers Enabled by Interfacial Synthesis. Angewandte Chemie, 2020, 132, 6084-6092.	1.6	18
52	Planar Perovskite Solar Cells with High Openâ€Circuit Voltage Containing a Supramolecular Iron Complex as Hole Transport Material Dopant. ChemPhysChem, 2018, 19, 1363-1370.	1.0	17
53	Single carrier devices with electrical doped layers for the characterization of charge-carrier transport in organic thin-films. Applied Physics Letters, 2010, 97, 013303.	1.5	16
54	Hierarchical Ti-Based MOF with Embedded RuO₂ Nanoparticles: a Highly Efficient Photoelectrode for Visible Light Water Oxidation. ACS Sustainable Chemistry and Engineering, 2020, 8, 18366-18376.	3.2	16

#	Article	IF	Citations
55	Insights into the evaporation behaviour of FAI: material degradation and consequences for perovskite solar cells. Sustainable Energy and Fuels, 2022, 6, 3230-3239.	2.5	15
56	Photoelectron spectroscopy investigations of recombination contacts for tandem organic solar cells. Applied Physics Letters, 2012, 100, .	1.5	14
57	The Impact of UV Photoelectron Spectroscopy on the Field of Organic Optoelectronicsâ€”A Retrospective. Advanced Optical Materials, 2021, 9, 2100227.	3.6	13
58	Interfacial engineering from material to solvent: A mechanistic understanding on stabilizing <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si0001.svg"><mml:mi>Î±</mml:mi></mml:math>-formamidinium lead triiodide perovskite photovoltaics. Nano Energy, 2022, 94, 106924.	8.2	13
59	High fatigue resistance of a photochromic dithienylethene embedded into the pores of a metalâ€“organic framework (MOF). Photochemical and Photobiological Sciences, 2020, 19, 1730-1740.	1.6	12
60	Ni[B 2 (SO 4) 4] and Co[B 2 (SO 4) 4]: Unveiling Systematic Trends in Phyllosilicate Analogue Borosulfates. Chemistry - A European Journal, 2020, 26, 17405-17415.	1.7	12
61	Phosphine Oxide Additives for Highâ€Brightness Inorganic Perovskite Lightâ€Emitting Diodes. Advanced Optical Materials, 2022, 10, 2101602.	3.6	12
62	Photoelectron spectroscopy investigation of thin metal films employed as top contacts in transparent organic solar cells. Thin Solid Films, 2011, 519, 1872-1875.	0.8	10
63	Energy Level Alignment and Morphology of Ag and Au Nanoparticle Recombination Contacts in Tandem Planar Heterojunction Solar Cells. Journal of Physical Chemistry C, 2013, 117, 22331-22340.	1.5	10
64	On-substrate polymerization of solution-processed, transparent PEDOT:DDQ thin film electrodes with a hydrophobic polymer matrix. Organic Electronics, 2011, 12, 1518-1526.	1.4	9
65	Decomposition of Organic Perovskite Precursors on MoO₃: Role of Halogen and Surface Defects. ACS Applied Materials & Interfaces, 2022, 14, 34208-34219.	4.0	9
66	Improving stability of perovskite solar cells using fullerene-polymer composite electron transport layer. Synthetic Metals, 2022, 286, 117028.	2.1	9
67	Modulating the Optical Characteristics of Spiropyran@Metalâ€“Organic Framework Composites as a Function of Spiropyran Substitution. Langmuir, 2021, 37, 7834-7842.	1.6	8
68	Ni, Pd, and Pt complexes of a tetradentate dianionic thiosemicarbazone-based O^N^N^S ligand. Dalton Transactions, 2021, 50, 4311-4322.	1.6	7
69	Cationic Cycloheptatrienyl Cyclopentadienyl Manganese Sandwich Complexes: Tromancenium Explored with High-Power LED Photosynthesis. Organometallics, 2021, 40, 2736-2749.	1.1	5
70			

#	Article	IF	Citations
73	Investigation of Hierarchical Structure Formation in Merocyanine Photovoltaics. Journal of Physical Chemistry C, 2020, 124, 19457-19466.	1.5	4
74	Band Gap of Pb(Fe0.5Nb0.5)O3 Thin Films Prepared by Pulsed Laser Deposition. Materials, 2021, 14, 6841.	1.3	4
75	Metal-Oxide Interface Materials for Organic and Perovskite Solar Cells. World Scientific Series in Nanoscience and Nanotechnology, 2019, , 61-104.	0.1	2
76	Built-in Potential of a Pentacene Pin Homojunction Studied by Ultraviolet Photoemission Spectroscopy. Materials Research Society Symposia Proceedings, 2010, 1270, 1.	0.1	1
77	Perovskite Solar Cells: Indium-Free Perovskite Solar Cells Enabled by Impermeable Tin-Oxide Electron Extraction Layers (Adv. Mater. 27/2017). Advanced Materials, 2017, 29, .	11.1	0
78	Probing the Chemical Instability of the Perovskite/MoO3 Interface via Precursor Studies. , 0, , .		0
79	Unravelling the Electronic Structure of Hybrid Perovskites and their Interfaces. , 0, , .		0
80	Metal Oxide Layers in Perovskite Solar Cells: a Double-Edged Sword. , 0, , .		0
81	Determination of the Electronic Structure of Lead and Tin based Perovskites. , 0, , .		0
82	Unravelling the Electronic Structure of Hybrid Perovskites and their Interfaces. , 0, , .		0
83	Metal Oxide Layers in Perovskite Solar Cells: a Double-Edged Sword. , 0, , .		0
84	Determination of the Electronic Structure of Lead and Tin based Perovskites. , 0, , .		0
85	Improving Operational Stability of Perovskite Solar Cells using ZnO Electron Transport Layer. , 0, , .		0