Giulia Grancini

List of Publications by Year in descending order

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		30070	22832
129	23,323	54	112
papers	citations	h-index	g-index
131	131	131	19337
all docs	docs citations	times ranked	citing authors

#	Article	IF	CITATIONS
1	Electron-Hole Diffusion Lengths Exceeding 1 Micrometer in an Organometal Trihalide Perovskite Absorber. Science, 2013, 342, 341-344.	12.6	8,703
2	One-Year stable perovskite solar cells by 2D/3D interface engineering. Nature Communications, 2017, 8, 15684.	12.8	1,625
3	Excitons versus free charges in organo-lead tri-halide perovskites. Nature Communications, 2014, 5, 3586.	12.8	1,443
4	Dimensional tailoring of hybrid perovskites for photovoltaics. Nature Reviews Materials, 2019, 4, 4-22.	48.7	671
5	Supramolecular Halogen Bond Passivation of Organic–Inorganic Halide Perovskite Solar Cells. Nano Letters, 2014, 14, 3247-3254.	9.1	651
6	Hot exciton dissociation in polymer solar cells. Nature Materials, 2013, 12, 29-33.	27.5	567
7	The Raman Spectrum of the CH ₃ NH ₃ Pbl ₃ Hybrid Perovskite: Interplay of Theory and Experiment. Journal of Physical Chemistry Letters, 2014, 5, 279-284.	4.6	555
8	The Importance of Moisture in Hybrid Lead Halide Perovskite Thin Film Fabrication. ACS Nano, 2015, 9, 9380-9393.	14.6	451
9	Large guanidinium cation mixed with methylammonium in lead iodide perovskites for 19% efficient solar cells. Nature Energy, 2017, 2, 972-979.	39.5	445
10	Highly efficient perovskite solar cells with a compositionally engineered perovskite/hole transporting material interface. Energy and Environmental Science, 2017, 10, 621-627.	30.8	436
11	Carrier trapping and recombination: the role of defect physics in enhancing the open circuit voltage of metal halide perovskite solar cells. Energy and Environmental Science, 2016, 9, 3472-3481.	30.8	409
12	High efficiency methylammonium lead triiodide perovskite solar cells: the relevance of non-stoichiometric precursors. Energy and Environmental Science, 2015, 8, 3550-3556.	30.8	384
13	Selective growth of layered perovskites for stable and efficient photovoltaics. Energy and Environmental Science, 2018, 11, 952-959.	30.8	305
14	The Impact of the Crystallization Processes on the Structural and Optical Properties of Hybrid Perovskite Films for Photovoltaics. Journal of Physical Chemistry Letters, 2014, 5, 3836-3842.	4.6	238
15	From Nano- to Micrometer Scale: The Role of Antisolvent Treatment on High Performance Perovskite Solar Cells. Chemistry of Materials, 2017, 29, 3490-3498.	6.7	234
16	Role of microstructure in the electron–hole interaction of hybrid lead halide perovskites. Nature Photonics, 2015, 9, 695-701.	31.4	226
17	Mapping Electric Fieldâ€Induced Switchable Poling and Structural Degradation in Hybrid Lead Halide Perovskite Thin Films. Advanced Energy Materials, 2015, 5, 1500962.	19.5	225
18	Molecular engineering of face-on oriented dopant-free hole transporting material for perovskite solar cells with 19% PCE. Journal of Materials Chemistry A, 2017, 5, 7811-7815.	10.3	209

#	Article	IF	CITATIONS
19	23.7% Efficient inverted perovskite solar cells by dual interfacial modification. Science Advances, 2021, 7, eabj7930.	10.3	205
20	CH ₃ NH ₃ PbI ₃ perovskite single crystals: surface photophysics and their interaction with the environment. Chemical Science, 2015, 6, 7305-7310.	7.4	192
21	Influence of Charge Transport Layers on Open-Circuit Voltage and Hysteresis in Perovskite Solar Cells. Joule, 2018, 2, 788-798.	24.0	187
22	Hysteresis-Free Lead-Free Double-Perovskite Solar Cells by Interface Engineering. ACS Energy Letters, 2018, 3, 1781-1786.	17.4	182
23	Intrinsic Halide Segregation at Nanometer Scale Determines the High Efficiency of Mixed Cation/Mixed Halide Perovskite Solar Cells. Journal of the American Chemical Society, 2016, 138, 15821-15824.	13.7	179
24	Transient Absorption Imaging of P3HT:PCBM Photovoltaic Blend: Evidence For Interfacial Charge Transfer State. Journal of Physical Chemistry Letters, 2011, 2, 1099-1105.	4.6	171
25	Dopantâ€Free Holeâ€Transporting Materials for Stable and Efficient Perovskite Solar Cells. Advanced Materials, 2017, 29, 1606555.	21.0	171
26	Lead or no lead? Availability, toxicity, sustainability and environmental impact of lead-free perovskite solar cells. Journal of Materials Chemistry C, 2021, 9, 67-76.	5 . 5	171
27	Ion Migration and the Role of Preconditioning Cycles in the Stabilization of the ⟨i⟩J⟨ i⟩–⟨i⟩V⟨ i⟩ Characteristics of Inverted Hybrid Perovskite Solar Cells. Advanced Energy Materials, 2016, 6, 1501453.	19.5	167
28	Optimization of Stable Quasi-Cubic FA _{<i>x</i>} MA _{1â€"<i>x</i>} PbI ₃ Perovskite Structure for Solar Cells with Efficiency beyond 20%. ACS Energy Letters, 2017, 2, 802-806.	17.4	158
29	Pumpâ€Probe Spectroscopy in Organic Semiconductors: Monitoring Fundamental Processes of Relevance in Optoelectronics. Advanced Materials, 2011, 23, 5468-5485.	21.0	131
30	Leadâ€Free Double Perovskites for Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900306.	5.8	127
31	Highâ€Efficiency Perovskite Solar Cells Using Molecularly Engineered, Thiopheneâ€Rich, Holeâ€Transporting Materials: Influence of Alkyl Chain Length on Power Conversion Efficiency. Advanced Energy Materials, 2017, 7, 1601674.	19.5	125
32	Water-Repellent Low-Dimensional Fluorous Perovskite as Interfacial Coating for 20% Efficient Solar Cells. Nano Letters, 2018, 18, 5467-5474.	9.1	118
33	Copper Thiocyanate Inorganic Hole-Transporting Material for High-Efficiency Perovskite Solar Cells. ACS Energy Letters, 2016, 1, 1112-1117.	17.4	115
34	Band-bending induced passivation: high performance and stable perovskite solar cells using a perhydropoly(silazane) precursor. Energy and Environmental Science, 2020, 13, 1222-1230.	30.8	114
35	Dynamical evolution of the 2D/3D interface: a hidden driver behind perovskite solar cell instability. Journal of Materials Chemistry A, 2020, 8, 2343-2348.	10.3	112
36	2D/3D perovskite engineering eliminates interfacial recombination losses in hybrid perovskite solar cells. CheM, 2021, 7, 1903-1916.	11.7	108

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37	Pbl ₂ –HMPA Complex Pretreatment for Highly Reproducible and Efficient CH ₃ NH ₃ Perovskite Solar Cells. Journal of the American Chemical Society, 2016, 138, 14380-14387.	13.7	107
38	Solution-processed two-dimensional materials for next-generation photovoltaics. Chemical Society Reviews, 2021, 50, 11870-11965.	38.1	96
39	In Situ Analysis Reveals the Role of 2D Perovskite in Preventing Thermal-Induced Degradation in 2D/3D Perovskite Interfaces. Nano Letters, 2020, 20, 3992-3998.	9.1	95
40	Molecularly Engineered Phthalocyanines as Holeâ€Transporting Materials in Perovskite Solar Cells Reaching Power Conversion Efficiency of 17.5%. Advanced Energy Materials, 2017, 7, 1601733.	19.5	90
41	Fiber-format stimulated-Raman-scattering microscopy from a single laser oscillator. Optics Letters, 2010, 35, 226.	3.3	88
42	Dependence of the two-photon photoluminescence yield of gold nanostructures on the laser pulse duration. Physical Review B, 2009, 80, .	3.2	87
43	Donor–π–donor type hole transporting materials: marked π-bridge effects on optoelectronic properties, solid-state structure, and perovskite solar cell efficiency. Chemical Science, 2016, 7, 6068-6075.	7.4	85
44	Analysis of Photocarrier Dynamics at Interfaces in Perovskite Solar Cells by Time-Resolved Photoluminescence. Journal of Physical Chemistry C, 2018, 122, 26805-26815.	3.1	79
45	Auto-passivation of crystal defects in hybrid imidazolium/methylammonium lead iodide films by fumigation with methylamine affords high efficiency perovskite solar cells. Nano Energy, 2019, 58, 105-111.	16.0	78
46	Bi-functional interfaces by poly(ionic liquid) treatment in efficient pin and nip perovskite solar cells. Energy and Environmental Science, 2021, 14, 4508-4522.	30.8	76
47	COVIDâ€19 vaccinations: The unknowns, challenges, and hopes. Journal of Medical Virology, 2022, 94, 1336-1349.	5.0	75
48	Beneficial Role of Reduced Graphene Oxide for Electron Extraction in Highly Efficient Perovskite Solar Cells. ChemSusChem, 2016, 9, 3040-3044.	6.8	73
49	Charge Photogeneration in Donor–Acceptor Conjugated Materials: Influence of Excess Excitation Energy and Chain Length. Journal of the American Chemical Society, 2013, 135, 4282-4290.	13.7	69
50	Borderless collaboration is needed for COVID-19â€"A disease that knows no borders. Infection Control and Hospital Epidemiology, 2020, 41, 1245-1246.	1.8	64
51	Modulating the Electron–Hole Interaction in a Hybrid Lead Halide Perovskite with an Electric Field. Journal of the American Chemical Society, 2015, 137, 15451-15459.	13.7	61
52	Enhanced TiO ₂ /MAPbl ₃ Electronic Coupling by Interface Modification with Pbl ₂ . Chemistry of Materials, 2016, 28, 3612-3615.	6.7	60
53	Polymerization Inhibition by Triplet State Absorption for Nanoscale Lithography. Advanced Materials, 2013, 25, 904-909.	21.0	59
54	Imaging and quantifying non-radiative losses at 23% efficient inverted perovskite solar cells interfaces. Nature Communications, 2022, 13 , .	12.8	58

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55	Subâ€Micrometer Charge Modulation Microscopy of a High Mobility Polymeric nâ€Channel Fieldâ€Effect Transistor. Advanced Materials, 2011, 23, 5086-5090.	21.0	55
56	Allâ€Inorganic Cesiumâ€Based Hybrid Perovskites for Efficient and Stable Solar Cells and Modules. Advanced Energy Materials, 2021, 11, 2100672.	19.5	54
57	Vibrational Response of Methylammonium Lead Iodide: From Cation Dynamics to Phonon–Phonon Interactions. ChemSusChem, 2016, 9, 2994-3004.	6.8	51
58	Boosting Infrared Light Harvesting by Molecular Functionalization of Metal Oxide/Polymer Interfaces in Efficient Hybrid Solar Cells. Advanced Functional Materials, 2012, 22, 2160-2166.	14.9	49
59	Copper sulfide nanoparticles as hole-transporting-material in a fully-inorganic blocking layers n-i-p perovskite solar cells: Application and working insights. Applied Surface Science, 2019, 478, 607-614.	6.1	48
60	Lowâ€Cost TiS ₂ as Holeâ€Transport Material for Perovskite Solar Cells. Small Methods, 2017, 1, 1700250.	8.6	47
61	Crystal Orientation Drives the Interface Physics at Two/Three-Dimensional Hybrid Perovskites. Journal of Physical Chemistry Letters, 2019, 10, 5713-5720.	4.6	47
62	Ultrafast internal conversion in a low band gap polymer for photovoltaics: experimental and theoretical study. Physical Chemistry Chemical Physics, 2012, 14, 6367.	2.8	43
63	Improved efficiency and reduced hysteresis in ultra-stable fully printable mesoscopic perovskite solar cells through incorporation of CuSCN into the perovskite layer. Journal of Materials Chemistry A, 2019, 7, 8073-8077.	10.3	42
64	Green-Emitting Lead-Free Cs ₄ SnBr ₆ Zero-Dimensional Perovskite Nanocrystals with Improved Air Stability. Journal of Physical Chemistry Letters, 2020, 11, 618-623.	4.6	42
65	Dealing with Lead in Hybrid Perovskite: A Challenge to Tackle for a Bright Future of This Technology?. Advanced Energy Materials, 2020, 10, 2001471.	19.5	41
66	Dynamic Microscopy Study of Ultrafast Charge Transfer in a Hybrid P3HT/Hyperbranched CdSe Nanoparticle Blend for Photovoltaics. Journal of Physical Chemistry Letters, 2012, 3, 517-523.	4.6	40
67	Halide perovskites: current issues and new strategies to push material and device stability. JPhys Energy, 2020, 2, 021005.	5.3	40
68	Ultrafast Energy Transfer in Ultrathin Organic Donor/Acceptor Blend. Scientific Reports, 2013, 3, 2073.	3.3	39
69	An efficient perovskite solar cell with symmetrical Zn(ii) phthalocyanine infiltrated buffering porous Al2O3 as the hybrid interfacial hole-transporting layer. Physical Chemistry Chemical Physics, 2016, 18, 27083-27089.	2.8	38
70	Lowâ€Cost Perovskite Solar Cells Employing Dimethoxydiphenylamineâ€Substituted Bistricyclic Aromatic Enes as Hole Transport Materials. ChemSusChem, 2017, 10, 3825-3832.	6.8	37
71	Nanoscale Imaging of the Interface Dynamics in Polymer Blends by Femtosecond Pumpâ€Probe Confocal Microscopy. Advanced Materials, 2010, 22, 3048-3051.	21.0	35
72	Fashioning Fluorous Organic Spacers for Tunable and Stable Layered Hybrid Perovskites. Chemistry of Materials, 2018, 30, 8211-8220.	6.7	35

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73	Pushing the limit of Cs incorporation into FAPbBr3 perovskite to enhance solar cells performances. APL Materials, 2019, 7, .	5.1	33
74	Molecular Packing and Electronic Processes in Amorphous-like Polymer Bulk Heterojunction Solar Cells with Fullerene Intercalation. Scientific Reports, 2014, 4, 5211.	3.3	32
75	Confocal ultrafast pump–probe spectroscopy: a new technique to explore nanoscale composites. Nanoscale, 2012, 4, 2219.	5.6	31
76	Fabrication of flexible all-inorganic nanocrystal solar cells by room-temperature processing. Energy and Environmental Science, 2013, 6, 1565.	30.8	29
77	Influence of Blend Composition on Ultrafast Charge Generation and Recombination Dynamics in Low Band Gap Polymer-Based Organic Photovoltaics. Journal of Physical Chemistry C, 2012, 116, 9838-9844.	3.1	27
78	Femtosecond to Microsecond Dynamics of Soret-Band Excited Corroles. Journal of Physical Chemistry C, 2015, 119, 28691-28700.	3.1	27
79	Saddle-like, Ï∈-conjugated, cyclooctatetrathiophene-based, hole-transporting material for perovskite solar cells. Journal of Materials Chemistry C, 2019, 7, 6656-6663.	5.5	27
80	Exceedingly Cheap Perovskite Solar Cells Using Iron Pyrite Hole Transport Materials. ChemistrySelect, 2016, 1, 5316-5319.	1.5	25
81	Femtosecond Chargeâ€Injection Dynamics at Hybrid Perovskite Interfaces. ChemPhysChem, 2017, 18, 2381-2389.	2.1	24
82	Manipulating Color Emission in 2D Hybrid Perovskites by Fine Tuning Halide Segregation: A Transparent Green Emitter. Advanced Materials, 2022, 34, e2105942.	21.0	24
83	Exploring the role of halide mixing in lead-free BZA ₂ SnX ₄ two dimensional hybrid perovskites. Journal of Materials Chemistry A, 2020, 8, 1875-1886.	10.3	21
84	Modulating Exciton Dynamics in Composite Nanocrystals for Excitonic Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 2489-2495.	4.6	20
85	Molecular Engineering of Iridium Blue Emitters Using Aryl N-Heterocyclic Carbene Ligands. European Journal of Inorganic Chemistry, 2016, 2016, 5089-5097.	2.0	19
86	Lattice Distortions Drive Electron–Hole Correlation within Micrometer-Size Lead-lodide Perovskite Crystals. ACS Energy Letters, 2017, 2, 265-269.	17.4	19
87	Co-Solvent Effect in the Processing of the Perovskite:Fullerene Blend Films for Electron Transport Layer-Free Solar Cells. Journal of Physical Chemistry C, 2018, 122, 2512-2520.	3.1	19
88	Vacuum-Induced Degradation of 2D Perovskites. Frontiers in Chemistry, 2020, 8, 66.	3.6	19
89	The critical role of interfacial dynamics in the stability of organic photovoltaic devices. Physical Chemistry Chemical Physics, 2014, 16, 8294-8300.	2.8	18
90	Effect of polymer morphology on P3HT-based solid-state dye sensitized solar cells: an ultrafast spectroscopic investigation. Optics Express, 2013, 21, A469.	3.4	17

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91	A Facile Preparative Route of Nanoscale Perovskites over Mesoporous Metal Oxide Films and Their Applications to Photosensitizers and Light Emitters. Advanced Functional Materials, 2018, 28, 1803801.	14.9	17
92	Picosecond Capture of Photoexcited Electrons Improves Photovoltaic Conversion in MAPbl ₃ :C ₇₀ â€Doped Planar and Mesoporous Solar Cells. Advanced Materials, 2018, 30, e1801496.	21.0	17
93	Reply to 'Measuring internal quantum efficiency to demonstrate hot exciton dissociation'. Nature Materials, 2013, 12, 594-595.	27.5	15
94	Panchromatic "Dye-Doped―Polymer Solar Cells: From Femtosecond Energy Relays to Enhanced Photo-Response. Journal of Physical Chemistry Letters, 2013, 4, 442-447.	4.6	14
95	Hyperbranched Quasi-1D TiO ₂ Nanostructure for Hybrid Organic–Inorganic Solar Cells. ACS Applied Materials & Diterfaces, 2015, 7, 7451-7455.	8.0	14
96	Fluorination of Organic Spacer Impacts on the Structural and Optical Response of 2D Perovskites. Frontiers in Chemistry, 2019, 7, 946.	3.6	14
97	Nonmonotonic Photostability of BA ₂ MA _{<i>n</i>h} Pb _{<i>n</i>k} I _{3<i>n</i>+1} Homologous Layered Perovskites. ACS Applied Materials & Diterfaces, 2022, 14, 961-970.	8.0	13
98	Spatial Charge Separation as the Origin of Anomalous Stark Effect in Fluorous 2D Hybrid Perovskites. Advanced Functional Materials, 2020, 30, 2000228.	14.9	12
99	From Bulk to Surface Passivation: Double Role of Chlorineâ€Doping for Boosting Efficiency of FAPbI ₃ â€rich Perovskite Solar Cells. Solar Rrl, 2022, 6, .	5.8	12
100	Revealing Weak Dimensional Confinement Effects in Excitonic Silver/Bismuth Double Perovskites. Jacs Au, 2022, 2, 136-149.	7.9	12
101	Turning Molecular Springs into Nano-Shock Absorbers: The Effect of Macroscopic Morphology and Crystal Size on the Dynamic Hysteresis of Water Intrusion–Extrusion into-from Hydrophobic Nanopores. ACS Applied Materials & Interfaces, 2022, 14, 26699-26713.	8.0	10
102	Twoâ€Step Thermal Annealing: An Effective Route for 15 % Efficient Quasiâ€⊋D Perovskite Solar Cells. ChemPlusChem, 2021, 86, 1044-1048.	2.8	8
103	Ultrafast spectroscopic imaging of exfoliated graphene. Physica Status Solidi (B): Basic Research, 2012, 249, 2497-2499.	1.5	7
104	Three-Dimensional Self-Assembly of Networked Branched TiO2 Nanocrystal Scaffolds for Efficient Room-Temperature Processed Depleted Bulk Heterojunction Solar Cells. ACS Applied Materials & Samp; Interfaces, 2014, 6, 5026-5033.	8.0	7
105	A step beyond in steady-state and time-resolved electro-optical spectroscopy: Demonstration of a customized simple, compact, low-cost, fiber-based interferometer system. Structural Dynamics, 2022, 9, 011101.	2.3	5
106	Room-temperature treatments for all-inorganic nanocrystal solar cell devices. Thin Solid Films, 2014, 560, 44-48.	1.8	4
107	Accelerated Thermal Aging Effects on Carbonâ€Based Perovskite Solar Cells: A Joint Experimental and Theoretical Analysis. Solar Rrl, 2021, 5, 2000759.	5.8	4
108	The Role of Higher Lying Electronic States in Charge Photogeneration in Organic Solar Cells. Advanced Functional Materials, 2015, 25, 6893-6899.	14.9	3

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109	Nonâ€Planar and Flexible Holeâ€Transporting Materials from Bisâ€Xanthene and Bisâ€Thioxanthene Units for Perovskite Solar Cells. Helvetica Chimica Acta, 2019, 102, e1900056.	1.6	3
110	A new era for solar energy: hybrid perovskite rocks. Photoniques, 2019, , 24-31.	0.1	3
111	Ultrafast exciton dissociation at donor/acceptor interfaces. , 2013, , .		1
112	Ultrafast Charge Separation in Low Band-Gap Polymer Blend for Photovoltaics. EPJ Web of Conferences, 2013, 41, 04010.	0.3	1
113	Twoâ€Step Thermal Annealing: An Effective Route for 15 % Efficient Quasiâ€2D Perovskite Solar Cells. ChemPlusChem, 2021, 86, 1040-1041.	2.8	1
114	Accelerated Thermal Aging Effects on Carbon-Based Perovskite Solar Cells: A Joint Experimental and Theoretical Analysis. , 0 , , .		1
115	Ultrafast confocal microscope for time-resolved imaging of thin films. , 2009, , .		0
116	Investigation of Local Dynamics on the Sub-micron Scale in Organic Blends Using an Ultrafast Confocal Microscope. Materials Research Society Symposia Proceedings, 2010, 1270, 1.	0.1	0
117	Coherent Raman microscopy with a fiber-format femtosecond oscillator., 2011,,.		0
118	Transient absorption spectroscopic techniques for organic photovoltaics: tracking the photogenerated charges. , 2012, , .		0
119	Ultrafast Charge Separation in Low Band-Gap Polymer Blend for Photovoltaics. , 2012, , .		0
120	Hot Exciton Dissociation at Organic Interfaces. Materials Research Society Symposia Proceedings, 2013, 1537, 1.	0.1	0
121	Ultrafast hot exciton dissociation at organic interfaces. , 2013, , .		0
122	Lattice distortions drive electron-hole correlation within micrometer size lead-iodide perovskite., 2017,,.		0
123	Ultrafast Confocal Microscope for Functional Imaging of Organic Thin Films. Springer Proceedings in Physics, 2009, , 161-165.	0.2	0
124	Coherent Raman Microscopy with a Fiber-Format Femtosecond Laser Oscillator., 2010,,.		0
125	Ultrafast charge photogeneration in low band-gap semiconducting polymer based solid-state dye sensitized solar cell (sDSC). , 2014, , .		0
126	Growth of layered perovskites for stable and efficient photovoltaics. , 0, , .		0

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127	2D/3D Perovskite Interfaces and processes therein. , 0, , .		O
128	Interface Engineering through 2D Perovskite Cation Modification: a route towards efficient and stable perovskite solar cells. , 0 , , .		O
129	Manipulating Two-Dimensional Hybrid Perovskites Optoelectronic Properties and Phase Segregation by Halides Compositional Engineering. , 0, , .		O