Giulia Grancini

List of Publications by Year
in descending order

129 papers	23,323 citations	29994 54 h-index	22764 112 g-index
131 all docs	131 docs citations	131 times ranked	19337 citing authors

#	Article	IF	Citations
1	Manipulating Color Emission in 2D Hybrid Perovskites by Fine Tuning Halide Segregation: A Transparent Green Emitter. Advanced Materials, 2022, 34, e2105942.	11.1	24
2	COVIDâ€19 vaccinations: The unknowns, challenges, and hopes. Journal of Medical Virology, 2022, 94, 1336-1349.	2.5	75
3	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.	0.9	5
4	From Bulk to Surface Passivation: Double Role of Chlorineâ€Doping for Boosting Efficiency of FAPbI₃â€rich Perovskite Solar Cells. Solar Rrl, 2022, 6, .	3.1	12
5	Revealing Weak Dimensional Confinement Effects in Excitonic Silver/Bismuth Double Perovskites. Jacs Au, 2022, 2, 136-149.	3.6	12
6	Nonmonotonic Photostability of BA₂MA_{<i>n</i>â€“1}Pb_{<i>n</i>}I_{3<i>n</i>+1} Homologous Layered Perovskites. ACS Applied Materials & Interfaces, 2022, 14, 961-970.	4.0	13
7	Imaging and quantifying non-radiative losses at 23% efficient inverted perovskite solar cells interfaces. Nature Communications, 2022, 13, .	5.8	58
8	Turning Molecular Springs into Nano-Shock Absorbers: The Effect of Macroscopic Morphology and Crystal Size on the Dynamic Hysteresis of Water Intrusionâ€“Extrusion into-from Hydrophobic Nanopores. ACS Applied Materials & Interfaces, 2022, 14, 26699-26713.	4.0	10
9	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.	2.7	171
10	Solution-processed two-dimensional materials for next-generation photovoltaics. Chemical Society Reviews, 2021, 50, 11870-11965.	18.7	96
11	Bi-functional interfaces by poly(ionic liquid) treatment in efficient pin and nip perovskite solar cells. Energy and Environmental Science, 2021, 14, 4508-4522.	15.6	76
12	Accelerated Thermal Aging Effects on Carbonâ€Based Perovskite Solar Cells: A Joint Experimental and Theoretical Analysis. Solar Rrl, 2021, 5, 2000759.	3.1	4
13	Twoâ€Step Thermal Annealing: An Effective Route for 15â€‰% Efficient Quasiâ€2D Perovskite Solar Cells. ChemPlusChem, 2021, 86, 1044-1048.	1.3	8
14	Allâ€Inorganic Cesiumâ€Based Hybrid Perovskites for Efficient and Stable Solar Cells and Modules. Advanced Energy Materials, 2021, 11, 2100672.	10.2	54
15	Twoâ€Step Thermal Annealing: An Effective Route for 15â€‰% Efficient Quasiâ€2D Perovskite Solar Cells. ChemPlusChem, 2021, 86, 1040-1041.	1.3	1
16	2D/3D perovskite engineering eliminates interfacial recombination losses in hybrid perovskite solar cells. CheM, 2021, 7, 1903-1916.	5.8	108
17	23.7% Efficient inverted perovskite solar cells by dual interfacial modification. Science Advances, 2021, 7, eabj7930.	4.7	205
18	Leadâ€Free Double Perovskites for Perovskite Solar Cells. Solar Rrl, 2020, 4, 1900306.	3.1	127

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19	Band-bending induced passivation: high performance and stable perovskite solar cells using a perhydropoly(silazane) precursor. Energy and Environmental Science, 2020, 13, 1222-1230.	15.6	114
20	Green-Emitting Lead-Free Cs₄SnBr₆ Zero-Dimensional Perovskite Nanocrystals with Improved Air Stability. Journal of Physical Chemistry Letters, 2020, 11, 618-623.	2.1	42
21	Exploring the role of halide mixing in lead-free BZA₂SnX₄ two dimensional hybrid perovskites. Journal of Materials Chemistry A, 2020, 8, 1875-1886.	5.2	21
22	Dynamical evolution of the 2D/3D interface: a hidden driver behind perovskite solar cell instability. Journal of Materials Chemistry A, 2020, 8, 2343-2348.	5.2	112
23	Spatial Charge Separation as the Origin of Anomalous Stark Effect in Fluorous 2D Hybrid Perovskites. Advanced Functional Materials, 2020, 30, 2000228.	7.8	12
24	Dealing with Lead in Hybrid Perovskite: A Challenge to Tackle for a Bright Future of This Technology?. Advanced Energy Materials, 2020, 10, 2001471.	10.2	41
25	Vacuum-Induced Degradation of 2D Perovskites. Frontiers in Chemistry, 2020, 8, 66.	1.8	19
26	Halide perovskites: current issues and new strategies to push material and device stability. JPhys Energy, 2020, 2, 021005.	2.3	40
27	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.	4.5	95
28	Borderless collaboration is needed for COVID-19â€”A disease that knows no borders. Infection Control and Hospital Epidemiology, 2020, 41, 1245-1246.	1.0	64
29	Crystal Orientation Drives the Interface Physics at Two/Three-Dimensional Hybrid Perovskites. Journal of Physical Chemistry Letters, 2019, 10, 5713-5720.	2.1	47
30	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.	3.1	48
31	Saddle-like, Ï€-conjugated, cyclooctatetrathiophene-based, hole-transporting material for perovskite solar cells. Journal of Materials Chemistry C, 2019, 7, 6656-6663.	2.7	27
32	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.	5.2	42
33	Nonâ€Planar and Flexible Holeâ€Transporting Materials from Bisâ€Xanthene and Bisâ€Thioxanthene Units for Perovskite Solar Cells. Helvetica Chimica Acta, 2019, 102, e1900056.	1.0	3
34	Pushing the limit of Cs incorporation into FAPbBr3 perovskite to enhance solar cells performances. APL Materials, 2019, 7, .	2.2	33
35	Dimensional tailoring of hybrid perovskites for photovoltaics. Nature Reviews Materials, 2019, 4, 4-22.	23.3	671
36	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.	8.2	78

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37	Fluorination of Organic Spacer Impacts on the Structural and Optical Response of 2D Perovskites. Frontiers in Chemistry, 2019, 7, 946.	1.8	14
38	A new era for solar energy: hybrid perovskite rocks. Photoniques, 2019, , 24-31.	0.0	3
39	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.	1.5	19
40	Selective growth of layered perovskites for stable and efficient photovoltaics. Energy and Environmental Science, 2018, 11, 952-959.	15.6	305
41	Influence of Charge Transport Layers on Open-Circuit Voltage and Hysteresis in Perovskite Solar Cells. Joule, 2018, 2, 788-798.	11.7	187
42	Fashioning Fluorous Organic Spacers for Tunable and Stable Layered Hybrid Perovskites. Chemistry of Materials, 2018, 30, 8211-8220.	3.2	35
43	Analysis of Photocarrier Dynamics at Interfaces in Perovskite Solar Cells by Time-Resolved Photoluminescence. Journal of Physical Chemistry C, 2018, 122, 26805-26815.	1.5	79
44	Hysteresis-Free Lead-Free Double-Perovskite Solar Cells by Interface Engineering. ACS Energy Letters, 2018, 3, 1781-1786.	8.8	182
45	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.	7.8	17
46	Picosecond Capture of Photoexcited Electrons Improves Photovoltaic Conversion in MAPbI₃:C₇₀â€Doped Planar and Mesoporous Solar Cells. Advanced Materials, 2018, 30, e1801496.	11.1	17
47	Water-Repellent Low-Dimensional Fluorous Perovskite as Interfacial Coating for 20% Efficient Solar Cells. Nano Letters, 2018, 18, 5467-5474.	4.5	118
48	Optimization of Stable Quasi-Cubic FA_{<i>x</i>}MA_{1â€“<i>x</i>}PbI₃ Perovskite Structure for Solar Cells with Efficiency beyond 20%. ACS Energy Letters, 2017, 2, 802-806.	8.8	158
49	Femtosecond Chargeâ€Injection Dynamics at Hybrid Perovskite Interfaces. ChemPhysChem, 2017, 18, 2381-2389.	1.0	24
50	One-Year stable perovskite solar cells by 2D/3D interface engineering. Nature Communications, 2017, 8, 15684.	5.8	1,625
51	From Nano- to Micrometer Scale: The Role of Antisolvent Treatment on High Performance Perovskite Solar Cells. Chemistry of Materials, 2017, 29, 3490-3498.	3.2	234
52	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.	5.2	209
53	Lattice Distortions Drive Electronâ€“Hole Correlation within Micrometer-Size Lead-Iodide Perovskite Crystals. ACS Energy Letters, 2017, 2, 265-269.	8.8	19
54	Highly efficient perovskite solar cells with a compositionally engineered perovskite/hole transporting material interface. Energy and Environmental Science, 2017, 10, 621-627.	15.6	436

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55	Molecularly Engineered Phthalocyanines as Holeâ€Transporting Materials in Perovskite Solar Cells Reaching Power Conversion Efficiency of 17.5%. Advanced Energy Materials, 2017, 7, 1601733.	10.2	90
56	Lowâ€Cost TiS₂ as Holeâ€Transport Material for Perovskite Solar Cells. Small Methods, 2017, 1, 1700250.	4.6	47
57	Dopantâ€Free Holeâ€Transporting Materials for Stable and Efficient Perovskite Solar Cells. Advanced Materials, 2017, 29, 1606555.	11.1	171
58	Large guanidinium cation mixed with methylammonium in lead iodide perovskites for 19% efficient solar cells. Nature Energy, 2017, 2, 972-979.	19.8	445
59	Lowâ€Cost Perovskite Solar Cells Employing Dimethoxydiphenylamineâ€Substituted Bistricyclic Aromatic Enes as Hole Transport Materials. ChemSusChem, 2017, 10, 3825-3832.	3.6	37
60	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.	10.2	125
61	Lattice distortions drive electron-hole correlation within micrometer size lead-iodide perovskite. , 2017, , .		0
62	Ion Migration and the Role of Preconditioning Cycles in the Stabilization of the <i>J</i>â€“<i>V</i> Characteristics of Inverted Hybrid Perovskite Solar Cells. Advanced Energy Materials, 2016, 6, 1501453.	10.2	167
63	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.	1.3	38
64	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.	6.6	179
65	Enhanced TiO₂/MAPbI₃ Electronic Coupling by Interface Modification with PbI₂. Chemistry of Materials, 2016, 28, 3612-3615.	3.2	60
66	Donorâ€“Ï€â€“donor type hole transporting materials: marked Ï€-bridge effects on optoelectronic properties, solid-state structure, and perovskite solar cell efficiency. Chemical Science, 2016, 7, 6068-6075.	3.7	85
67	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.	15.6	409
68	Vibrational Response of Methylammonium Lead Iodide: From Cation Dynamics to Phononâ€“Phonon Interactions. ChemSusChem, 2016, 9, 2994-3004.	3.6	51
69	Exceedingly Cheap Perovskite Solar Cells Using Iron Pyrite Hole Transport Materials. ChemistrySelect, 2016, 1, 5316-5319.	0.7	25
70	PbI₂â€“HMPA Complex Pretreatment for Highly Reproducible and Efficient CH₃NH₃PbI₃ Perovskite Solar Cells. Journal of the American Chemical Society, 2016, 138, 14380-14387.	6.6	107
71	Molecular Engineering of Iridium Blue Emitters Using Aryl N-Heterocyclic Carbene Ligands. European Journal of Inorganic Chemistry, 2016, 2016, 5089-5097.	1.0	19
72	Beneficial Role of Reduced Graphene Oxide for Electron Extraction in Highly Efficient Perovskite Solar Cells. ChemSusChem, 2016, 9, 3040-3044.	3.6	73

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73	Copper Thiocyanate Inorganic Hole-Transporting Material for High-Efficiency Perovskite Solar Cells. ACS Energy Letters, 2016, 1, 1112-1117.	8.8	115
74	The Role of Higher Lying Electronic States in Charge Photogeneration in Organic Solar Cells. Advanced Functional Materials, 2015, 25, 6893-6899.	7.8	3
75	Mapping Electric Fieldâ€Induced Switchable Poling and Structural Degradation in Hybrid Lead Halide Perovskite Thin Films. Advanced Energy Materials, 2015, 5, 1500962.	10.2	225
76	Femtosecond to Microsecond Dynamics of Soret-Band Excited Corroles. Journal of Physical Chemistry C, 2015, 119, 28691-28700.	1.5	27
77	The Importance of Moisture in Hybrid Lead Halide Perovskite Thin Film Fabrication. ACS Nano, 2015, 9, 9380-9393.	7.3	451
78	Modulating Exciton Dynamics in Composite Nanocrystals for Excitonic Solar Cells. Journal of Physical Chemistry Letters, 2015, 6, 2489-2495.	2.1	20
79	Hyperbranched Quasi-1D TiO₂ Nanostructure for Hybrid Organicâ€“Inorganic Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 7451-7455.	4.0	14
80	High efficiency methylammonium lead triiodide perovskite solar cells: the relevance of non-stoichiometric precursors. Energy and Environmental Science, 2015, 8, 3550-3556.	15.6	384
81	Role of microstructure in the electronâ€“hole interaction of hybrid lead halide perovskites. Nature Photonics, 2015, 9, 695-701.	15.6	226
82	CH₃NH₃PbI₃ perovskite single crystals: surface photophysics and their interaction with the environment. Chemical Science, 2015, 6, 7305-7310.	3.7	192
83	Modulating the Electronâ€“Hole Interaction in a Hybrid Lead Halide Perovskite with an Electric Field. Journal of the American Chemical Society, 2015, 137, 15451-15459.	6.6	61
84	Excitons versus free charges in organo-lead tri-halide perovskites. Nature Communications, 2014, 5, 3586.	5.8	1,443
85	Supramolecular Halogen Bond Passivation of Organicâ€“Inorganic Halide Perovskite Solar Cells. Nano Letters, 2014, 14, 3247-3254.	4.5	651
86	Room-temperature treatments for all-inorganic nanocrystal solar cell devices. Thin Solid Films, 2014, 560, 44-48.	0.8	4
87	The Raman Spectrum of the CH₃NH₃PbI₃ Hybrid Perovskite: Interplay of Theory and Experiment. Journal of Physical Chemistry Letters, 2014, 5, 279-284.	2.1	555
88	The critical role of interfacial dynamics in the stability of organic photovoltaic devices. Physical Chemistry Chemical Physics, 2014, 16, 8294-8300.	1.3	18
89	Three-Dimensional Self-Assembly of Networked Branched TiO2 Nanocrystal Scaffolds for Efficient Room-Temperature Processed Depleted Bulk Heterojunction Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 5026-5033.	4.0	7
90	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.	2.1	238

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91	Molecular Packing and Electronic Processes in Amorphous-like Polymer Bulk Heterojunction Solar Cells with Fullerene Intercalation. Scientific Reports, 2014, 4, 5211.	1.6	32
92	Ultrafast charge photogeneration in low band-gap semiconducting polymer based solid-state dye sensitized solar cell (sDSC). , 2014, , .		0
93	Reply to 'Measuring internal quantum efficiency to demonstrate hot exciton dissociation'. Nature Materials, 2013, 12, 594-595.	13.3	15
94	Electron-Hole Diffusion Lengths Exceeding 1 Micrometer in an Organometal Trihalide Perovskite Absorber. Science, 2013, 342, 341-344.	6.0	8,703
95	Panchromatic â€œDye-Dopedâ€•Polymer Solar Cells: From Femtosecond Energy Relays to Enhanced Photo-Response. Journal of Physical Chemistry Letters, 2013, 4, 442-447.	2.1	14
96	Hot exciton dissociation in polymer solar cells. Nature Materials, 2013, 12, 29-33.	13.3	567
97	Polymerization Inhibition by Triplet State Absorption for Nanoscale Lithography. Advanced Materials, 2013, 25, 904-909.	11.1	59
98	Fabrication of flexible all-inorganic nanocrystal solar cells by room-temperature processing. Energy and Environmental Science, 2013, 6, 1565.	15.6	29
99	Charge Photogeneration in Donorâ€"Acceptor Conjugated Materials: Influence of Excess Excitation Energy and Chain Length. Journal of the American Chemical Society, 2013, 135, 4282-4290.	6.6	69
100	Ultrafast Energy Transfer in Ultrathin Organic Donor/Acceptor Blend. Scientific Reports, 2013, 3, 2073.	1.6	39
101	Effect of polymer morphology on P3HT-based solid-state dye sensitized solar cells: an ultrafast spectroscopic investigation. Optics Express, 2013, 21, A469.	1.7	17
102	Ultrafast exciton dissociation at donor/acceptor interfaces. , 2013, , .		1
103	Hot Exciton Dissociation at Organic Interfaces. Materials Research Society Symposia Proceedings, 2013, 1537, 1.	0.1	0
104	Ultrafast hot exciton dissociation at organic interfaces. , 2013, , .		0
105	Ultrafast Charge Separation in Low Band-Gap Polymer Blend for Photovoltaics. EPJ Web of Conferences, 2013, 41, 04010.	0.1	1
106	Transient absorption spectroscopic techniques for organic photovoltaics: tracking the photogenerated charges. , 2012, , .		0
107	Ultrafast Charge Separation in Low Band-Gap Polymer Blend for Photovoltaics. , 2012, , .		0
108	Ultrafast spectroscopic imaging of exfoliated graphene. Physica Status Solidi (B): Basic Research, 2012, 249, 2497-2499.	0.7	7

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109	Ultrafast internal conversion in a low band gap polymer for photovoltaics: experimental and theoretical study. Physical Chemistry Chemical Physics, 2012, 14, 6367.	1.3	43
110	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.	2.1	40
111	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.	1.5	27
112	Confocal ultrafast pumpâ€“probe spectroscopy: a new technique to explore nanoscale composites. Nanoscale, 2012, 4, 2219.	2.8	31
113	Boosting Infrared Light Harvesting by Molecular Functionalization of Metal Oxide/Polymer Interfaces in Efficient Hybrid Solar Cells. Advanced Functional Materials, 2012, 22, 2160-2166.	7.8	49
114	Transient Absorption Imaging of P3HT:PCBM Photovoltaic Blend: Evidence For Interfacial Charge Transfer State. Journal of Physical Chemistry Letters, 2011, 2, 1099-1105.	2.1	171
115	Pumpâ€Probe Spectroscopy in Organic Semiconductors: Monitoring Fundamental Processes of Relevance in Optoelectronics. Advanced Materials, 2011, 23, 5468-5485.	11.1	131
116	Subâ€Micrometer Charge Modulation Microscopy of a High Mobility Polymeric nâ€Channel Fieldâ€Effect Transistor. Advanced Materials, 2011, 23, 5086-5090.	11.1	55
117	Coherent Raman microscopy with a fiber-format femtosecond oscillator. , 2011, , .		0
118	Nanoscale Imaging of the Interface Dynamics in Polymer Blends by Femtosecond Pumpâ€Probe Confocal Microscopy. Advanced Materials, 2010, 22, 3048-3051.	11.1	35
119	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
120	Fiber-format stimulated-Raman-scattering microscopy from a single laser oscillator. Optics Letters, 2010, 35, 226.	1.7	88
121	Coherent Raman Microscopy with a Fiber-Format Femtosecond Laser Oscillator. , 2010, , .		0
122	Ultrafast confocal microscope for time-resolved imaging of thin films. , 2009, , .		0
123	Dependence of the two-photon photoluminescence yield of gold nanostructures on the laser pulse duration. Physical Review B, 2009, 80, .	1.1	87
124	Ultrafast Confocal Microscope for Functional Imaging of Organic Thin Films. Springer Proceedings in Physics, 2009, , 161-165.	0.1	0
125	Growth of layered perovskites for stable and efficient photovoltaics. , 0, , .		0
126	2D/3D Perovskite Interfaces and processes therein. , 0, , .		0

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127	Interface Engineering through 2D Perovskite Cation Modification: a route towards efficient and stable perovskite solar cells. , 0, , .		0
128	Manipulating Two-Dimensional Hybrid Perovskites Optoelectronic Properties and Phase Segregation by Halides Compositional Engineering. , 0, , .		0
129	Accelerated Thermal Aging Effects on Carbon-Based Perovskite Solar Cells: A Joint Experimental and Theoretical Analysis. , 0, , .		1