Giulia Grancini

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

113 papers	18,426 citations	47 h-index	131 g-index
131 ext. papers	20,847 ext. citations	14.4 avg, IF	6.93 L-index

#	Paper	IF	Citations
113	Electron-hole diffusion lengths exceeding 1 micrometer in an organometal trihalide perovskite absorber. *Science*, **2013**, 342, 341-4	33.3	7280
112	One-Year stable perovskite solar cells by 2D/3D interface engineering. *Nature Communications*, **2017**, 8, 15684	17.4	1253
111	Excitons versus free charges in organo-lead tri-halide perovskites. *Nature Communications*, **2014**, 5, 3586	17.4	1231
110	Supramolecular halogen bond passivation of organic-inorganic halide perovskite solar cells. *Nano Letters*, **2014**, 14, 3247-54	11.5	527
109	Hot exciton dissociation in polymer solar cells. *Nature Materials*, **2013**, 12, 29-33	27	496
108	The Raman Spectrum of the CH3NH3PbI3 Hybrid Perovskite: Interplay of Theory and Experiment. *Journal of Physical Chemistry Letters*, **2014**, 5, 279-84	6.4	476
107	Dimensional tailoring of hybrid perovskites for photovoltaics. *Nature Reviews Materials*, **2019**, 4, 4-22	73.3	440
106	The Importance of Moisture in Hybrid Lead Halide Perovskite Thin Film Fabrication. *ACS Nano*, **2015** , 9, 9380-93	16.7	366
105	Highly efficient perovskite solar cells with a compositionally engineered perovskite/hole transporting material interface. *Energy and Environmental Science*, **2017**, 10, 621-627	35.4	350
104	Large guanidinium cation mixed with methylammonium in lead iodide perovskites for 19% efficient solar cells. *Nature Energy*, **2017**, 2, 972-979	62.3	339
103	High efficiency methylammonium lead triiodide perovskite solar cells: the relevance of non-stoichiometric precursors. *Energy and Environmental Science*, **2015**, 8, 3550-3556	35.4	335
102	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	35.4	317
101	Selective growth of layered perovskites for stable and efficient photovoltaics. *Energy and Environmental Science*, **2018**, 11, 952-959	35.4	233
100	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, 3836-42	6.4	218
99	Role of Microstructure in the Electron-Hole Interaction of Hybrid Lead-Halide Perovskites. *Nature Photonics*, **2015**, 9, 695-701	33.9	203
98	From Nano- to Micrometer Scale: The Role of Antisolvent Treatment on High Performance Perovskite Solar Cells. *Chemistry of Materials*, **2017**, 29, 3490-3498	9.6	194
97	Mapping Electric Field-Induced Switchable Poling and Structural Degradation in Hybrid Lead Halide Perovskite Thin Films. *Advanced Energy Materials*, **2015**, 5, 1500962	21.8	179

96	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	13	171
95	CHNHPbI perovskite single crystals: surface photophysics and their interaction with the environment. *Chemical Science*, **2015**, 6, 7305-7310	9.4	171
94	Transient Absorption Imaging of P3HT:PCBM Photovoltaic Blend: Evidence For Interfacial Charge Transfer State. *Journal of Physical Chemistry Letters*, **2011**, 2, 1099-1105	6.4	161
93	Dopant-Free Hole-Transporting Materials for Stable and Efficient Perovskite Solar Cells. *Advanced Materials*, **2017**, 29, 1606555	24	151
92	Influence of Charge Transport Layers on Open-Circuit Voltage and Hysteresis in Perovskite Solar Cells. *Joule*, **2018**, 2, 788-798	27.8	147
91	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	16.4	141
90	Ion Migration and the Role of Preconditioning Cycles in the Stabilization of the J□V Characteristics of Inverted Hybrid Perovskite Solar Cells. *Advanced Energy Materials*, **2016**, 6, 1501453	21.8	139
89	Hysteresis-Free Lead-Free Double-Perovskite Solar Cells by Interface Engineering. *ACS Energy Letters*, **2018**, 3, 1781-1786	20.1	131
88	Optimization of Stable Quasi-Cubic FAxMA1□PbI3 Perovskite Structure for Solar Cells with Efficiency beyond 20%. *ACS Energy Letters*, **2017**, 2, 802-806	20.1	124
87	Pump-probe spectroscopy in organic semiconductors: monitoring fundamental processes of relevance in optoelectronics. *Advanced Materials*, **2011**, 23, 5468-85	24	112
86	High-Efficiency Perovskite Solar Cells Using Molecularly Engineered, Thiophene-Rich, Hole-Transporting Materials: Influence of Alkyl Chain Length on Power Conversion Efficiency. *Advanced Energy Materials*, **2017**, 7, 1601674	21.8	111
85	Copper Thiocyanate Inorganic Hole-Transporting Material for High-Efficiency Perovskite Solar Cells. *ACS Energy Letters*, **2016**, 1, 1112-1117	20.1	98
84	Water-Repellent Low-Dimensional Fluorous Perovskite as Interfacial Coating for 20% Efficient Solar Cells. *Nano Letters*, **2018**, 18, 5467-5474	11.5	88
83	PbI-HMPA Complex Pretreatment for Highly Reproducible and Efficient CHNHPbI Perovskite Solar Cells. *Journal of the American Chemical Society*, **2016**, 138, 14380-14387	16.4	83
82	Molecularly Engineered Phthalocyanines as Hole-Transporting Materials in Perovskite Solar Cells Reaching Power Conversion Efficiency of 17.5%. *Advanced Energy Materials*, **2017**, 7, 1601733	21.8	79
81	Dependence of the two-photon photoluminescence yield of gold nanostructures on the laser pulse duration. *Physical Review B*, **2009**, 80,	3.3	77
80	Fiber-format stimulated-Raman-scattering microscopy from a single laser oscillator. *Optics Letters*, **2010**, 35, 226-8	3	75
79	Band-bending induced passivation: high performance and stable perovskite solar cells using a perhydropoly(silazane) precursor. *Energy and Environmental Science*, **2020**, 13, 1222-1230	35.4	72

78	Donor-□donor type hole transporting materials: marked □bridge effects on optoelectronic properties, solid-state structure, and perovskite solar cell efficiency. *Chemical Science*, **2016**, 7, 6068-6075	9.4	71
77	Lead-Free Double Perovskites for Perovskite Solar Cells. *Solar Rrl*, **2020**, 4, 1900306	7.1	64
76	Dynamical evolution of the 2D/3D interface: a hidden driver behind perovskite solar cell instability. *Journal of Materials Chemistry A*, **2020**, 8, 2343-2348	13	60
75	Beneficial Role of Reduced Graphene Oxide for Electron Extraction in Highly Efficient Perovskite Solar Cells. *ChemSusChem*, **2016**, 9, 3040-3044	8.3	56
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72	Sub-micrometer charge modulation microscopy of a high mobility polymeric n-channel field-effect transistor. *Advanced Materials*, **2011**, 23, 5086-90	24	53
71	Modulating the Electron-Hole Interaction in a Hybrid Lead Halide Perovskite with an Electric Field. *Journal of the American Chemical Society*, **2015**, 137, 15451-9	16.4	51
70	Borderless collaboration is needed for COVID-19-A disease that knows no borders. *Infection Control and Hospital Epidemiology*, **2020**, 41, 1245-1246	2	51
69	23.7% Efficient inverted perovskite solar cells by dual interfacial modification. *Science Advances*, **2021**, 7, eabj7930	14.3	50
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67	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	7.1	47
66	Polymerization inhibition by triplet state absorption for nanoscale lithography. *Advanced Materials*, **2013**, 25, 904-9	24	46
65	Boosting Infrared Light Harvesting by Molecular Functionalization of Metal Oxide/Polymer Interfaces in Efficient Hybrid Solar Cells. *Advanced Functional Materials*, **2012**, 22, 2160-2166	15.6	46
64	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	11.5	41
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62	Analysis of Photocarrier Dynamics at Interfaces in Perovskite Solar Cells by Time-Resolved Photoluminescence. *Journal of Physical Chemistry C*, **2018**, 122, 26805-26815	3.8	39
61	Dynamic Microscopy Study of Ultrafast Charge Transfer in a Hybrid P3HT/Hyperbranched CdSe Nanoparticle Blend for Photovoltaics. *Journal of Physical Chemistry Letters*, **2012**, 3, 517-23	6.4	38

60	Vibrational Response of Methylammonium Lead Iodide: From Cation Dynamics to Phonon-Phonon Interactions. *ChemSusChem*, **2016**, 9, 2994-3004	8.3	38
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56	2D/3D perovskite engineering eliminates interfacial recombination losses in hybrid perovskite solar cells. *CheM*, **2021**, 7, 1903-1916	16.2	32
55	Nanoscale imaging of the interface dynamics in polymer blends by femtosecond pump-probe confocal microscopy. *Advanced Materials*, **2010**, 22, 3048-51	24	31
54	An efficient perovskite solar cell with symmetrical Zn(ii) phthalocyanine infiltrated buffering porous AlO as the hybrid interfacial hole-transporting layer. *Physical Chemistry Chemical Physics*, **2016**, 18, 27083-27089	3.6	31
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50	Molecular packing and electronic processes in amorphous-like polymer bulk heterojunction solar cells with fullerene intercalation. *Scientific Reports*, **2014**, 4, 5211	4.9	28
49	Dealing with Lead in Hybrid Perovskite: A Challenge to Tackle for a Bright Future of This Technology?. *Advanced Energy Materials*, **2020**, 10, 2001471	21.8	28
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45	Green-Emitting Lead-Free CsSnBr Zero-Dimensional Perovskite Nanocrystals with Improved Air Stability. *Journal of Physical Chemistry Letters*, **2020**, 11, 618-623	6.4	26
44	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	3.8	25
43	Femtosecond Charge-Injection Dynamics at Hybrid Perovskite Interfaces. *ChemPhysChem*, **2017**, 18, 2381-2389	3.2	21

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39	Solution-processed two-dimensional materials for next-generation photovoltaics. *Chemical Society Reviews*, **2021**, 50, 11870-11965	58.5	21
38	Bi-functional interfaces by poly(ionic liquid) treatment in efficient pin and nip perovskite solar cells. *Energy and Environmental Science*,	35.4	21
37	Femtosecond to Microsecond Dynamics of Soret-Band Excited Corroles. *Journal of Physical Chemistry C*, **2015**, 119, 28691-28700	3.8	19
36	Modulating Exciton Dynamics in Composite Nanocrystals for Excitonic Solar Cells. *Journal of Physical Chemistry Letters*, **2015**, 6, 2489-95	6.4	18
35	All-Inorganic Cesium-Based Hybrid Perovskites for Efficient and Stable Solar Cells and Modules. *Advanced Energy Materials*, **2021**, 11, 2100672	21.8	18
34	Exceedingly Cheap Perovskite Solar Cells Using Iron Pyrite Hole Transport Materials. *ChemistrySelect*, **2016**, 1, 5316-5319	1.8	18
33	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	3.8	16
32	Lattice Distortions Drive Electron–Hole Correlation within Micrometer-Size Lead-Iodide Perovskite Crystals. *ACS Energy Letters*, **2017**, 2, 265-269	20.1	15
31	The critical role of interfacial dynamics in the stability of organic photovoltaic devices. *Physical Chemistry Chemical Physics*, **2014**, 16, 8294-300	3.6	15
30	Effect of polymer morphology on P3HT-based solid-state dye sensitized solar cells: an ultrafast spectroscopic investigation. *Optics Express*, **2013**, 21 Suppl 3, A469-74	3.3	15
29	Vacuum-Induced Degradation of 2D Perovskites. *Frontiers in Chemistry*, **2020**, 8, 66	5	14
28	Reply to "Measuring internal quantum efficiency to demonstrate hot exciton dissociation". *Nature Materials*, **2013**, 12, 594-5	27	14
27	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	15.6	13
26	Picosecond Capture of Photoexcited Electrons Improves Photovoltaic Conversion in MAPbI :C -Doped Planar and Mesoporous Solar Cells. *Advanced Materials*, **2018**, 30, e1801496	24	13
25	Panchromatic "Dye-Doped" Polymer Solar Cells: From Femtosecond Energy Relays to Enhanced Photo-Response. *Journal of Physical Chemistry Letters*, **2013**, 4, 442-7	6.4	13

24	Exploring the role of halide mixing in lead-free BZA2SnX4 two dimensional hybrid perovskites. *Journal of Materials Chemistry A*, **2020**, 8, 1875-1886	13	13
23	Molecular Engineering of Iridium Blue Emitters Using Aryl N-Heterocyclic Carbene Ligands. *European Journal of Inorganic Chemistry*, **2016**, 2016, 5089-5097	2.3	12
22	COVID-19 vaccinations: The unknowns, challenges, and hopes. *Journal of Medical Virology*, **2021**,	19.7	12
21	Hyperbranched quasi-1D TiO2 nanostructure for hybrid organic-inorganic solar cells. *ACS Applied Materials & Interfaces*, **2015**, 7, 7451-5	9.5	11
20	Fluorination of Organic Spacer Impacts on the Structural and Optical Response of 2D Perovskites. *Frontiers in Chemistry*, **2019**, 7, 946	5	9
19	Spatial Charge Separation as the Origin of Anomalous Stark Effect in Fluorous 2D Hybrid Perovskites. *Advanced Functional Materials*, **2020**, 30, 2000228	15.6	6
18	Three-dimensional self-assembly of networked branched TiO□nanocrystal scaffolds for efficient room-temperature processed depleted bulk heterojunction solar cells. *ACS Applied Materials & Interfaces*, **2014**, 6, 5026-33	9.5	6
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14	Non-Planar and Flexible Hole-Transporting Materials from Bis-Xanthene and Bis-Thioxanthene Units for Perovskite Solar Cells. *Helvetica Chimica Acta*, **2019**, 102, e1900056	2	3
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11	Two-Step Thermal Annealing: An Effective Route for 15 % Efficient Quasi-2D Perovskite Solar Cells. *ChemPlusChem*, **2021**, 86, 1044-1048	2.8	3
10	From Bulk to Surface Passivation: Double Role of Chlorine-Doping for Boosting Efficiency of FAPbI 3 -rich Perovskite Solar Cells. *Solar Rrl*,2200038	7.1	3
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8	Revealing Weak Dimensional Confinement Effects in Excitonic Silver/Bismuth Double Perovskites.. *Jacs Au*, **2022**, 2, 136-149		2
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6	Ultrafast Charge Separation in Low Band-Gap Polymer Blend for Photovoltaics. *EPJ Web of Conferences*, **2013**, 41, 04010	0.3	1
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4	Hot Exciton Dissociation at Organic Interfaces. *Materials Research Society Symposia Proceedings*, **2013**, 1537, 1		
3	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		
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1	Two-Step Thermal Annealing: An Effective Route for 15 % Efficient Quasi-2D Perovskite Solar Cells. *ChemPlusChem*, **2021**, 86, 1040-1041	2.8	