

# Nicola Gasparini

## 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.

94  
papers

7,199  
citations

41  
h-index

84  
g-index

104  
ext. papers

8,531  
ext. citations

17  
avg, IF

6.13  
L-index

#	Paper	IF	Citations
94	High-efficiency and air-stable P3HT-based polymer solar cells with a new non-fullerene acceptor. <i>Nature Communications</i> , <b>2016</b> , 7, 11585	17.4	903
93	Reducing the efficiency-stability-cost gap of organic photovoltaics with highly efficient and stable small molecule acceptor ternary solar cells. <i>Nature Materials</i> , <b>2017</b> , 16, 363-369	27	807
92	Critical review of the molecular design progress in non-fullerene electron acceptors towards commercially viable organic solar cells. <i>Chemical Society Reviews</i> , <b>2019</b> , 48, 1596-1625	58.5	617
91	Managing grains and interfaces via ligand anchoring enables 22.3%-efficiency inverted perovskite solar cells. <i>Nature Energy</i> , <b>2020</b> , 5, 131-140	62.3	552
90	Reduced voltage losses yield 10% efficient fullerene free organic solar cells with >1 V open circuit voltages. <i>Energy and Environmental Science</i> , <b>2016</b> , 9, 3783-3793	35.4	425
89	Designing ternary blend bulk heterojunction solar cells with reduced carrier recombination and a fill factor of 77%. <i>Nature Energy</i> , <b>2016</b> , 1,	62.3	274
88	The role of the third component in ternary organic solar cells. <i>Nature Reviews Materials</i> , <b>2019</b> , 4, 229-242	23.3	244
87	Controlling Blend Morphology for Ultrahigh Current Density in Nonfullerene Acceptor-Based Organic Solar Cells. <i>ACS Energy Letters</i> , <b>2018</b> , 3, 669-676	20.1	187
86	High-performance ternary organic solar cells with thick active layer exceeding 11% efficiency. <i>Energy and Environmental Science</i> , <b>2017</b> , 10, 885-892	35.4	172
85	Burn-in Free Nonfullerene-Based Organic Solar Cells. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1700770	21.8	156
84	Quantum Dots Supply Bulk- and Surface-Passivation Agents for Efficient and Stable Perovskite Solar Cells. <i>Joule</i> , <b>2019</b> , 3, 1963-1976	27.8	154
83	Robust nonfullerene solar cells approaching unity external quantum efficiency enabled by suppression of geminate recombination. <i>Nature Communications</i> , <b>2018</b> , 9, 2059	17.4	141
82	P3HT: non-fullerene acceptor based large area, semi-transparent PV modules with power conversion efficiencies of 5%, processed by industrially scalable methods. <i>Energy and Environmental Science</i> , <b>2018</b> , 11, 2225-2234	35.4	108
81	Effects of Alkyl Terminal Chains on Morphology, Charge Generation, Transport, and Recombination Mechanisms in Solution-Processed Small Molecule Bulk Heterojunction Solar Cells. <i>Advanced Energy Materials</i> , <b>2015</b> , 5, 1500386	21.8	98
80	The Physics of Small Molecule Acceptors for Efficient and Stable Bulk Heterojunction Solar Cells. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1703298	21.8	96
79	Side Chain Redistribution as a Strategy to Boost Organic Electrochemical Transistor Performance and Stability. <i>Advanced Materials</i> , <b>2020</b> , 32, e2002748	24	88
78	Nonfullerene Acceptor for Organic Solar Cells with Chlorination on Dithieno[3,2-b:2',3'-d]pyrrol Fused-Ring. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 763-770	20.1	87

77	Exploiting Ternary Blends for Improved Photostability in High-Efficiency Organic Solar Cells. <i>ACS Energy Letters</i> , <b>2020</b> , 5, 1371-1379	20.1	83
76	Progress in Poly (3-Hexylthiophene) Organic Solar Cells and the Influence of Its Molecular Weight on Device Performance. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1801001	21.8	72
75	Polymer:Nonfullerene Bulk Heterojunction Solar Cells with Exceptionally Low Recombination Rates. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1701561	21.8	69
74	Dual Sensitizer and Processing-Aid Behavior of Donor Enables Efficient Ternary Organic Solar Cells. <i>Joule</i> , <b>2019</b> , 3, 846-857	27.8	68
73	The Bulk Heterojunction in Organic Photovoltaic, Photodetector, and Photocatalytic Applications. <i>Advanced Materials</i> , <b>2020</b> , 32, e2001763	24	68
72	A Highly Crystalline Fused-Ring n-Type Small Molecule for Non-Fullerene Acceptor Based Organic Solar Cells and Field-Effect Transistors. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1802895	15.6	63
71	Visible and Near-Infrared Imaging with Nonfullerene-Based Photodetectors. <i>Advanced Materials Technologies</i> , <b>2018</b> , 3, 1800104	6.8	60
70	Exploring the Limiting Open-Circuit Voltage and the Voltage Loss Mechanism in Planar CH <sub>3</sub> NH <sub>3</sub> PbBr <sub>3</sub> Perovskite Solar Cells. <i>Advanced Energy Materials</i> , <b>2016</b> , 6, 1600132	21.8	59
69	Overcoming the Ambient Manufacturability-Scalability-Performance Bottleneck in Colloidal Quantum Dot Photovoltaics. <i>Advanced Materials</i> , <b>2018</b> , 30, e1801661	24	58
68	Organic and perovskite solar modules innovated by adhesive top electrode and depth-resolved laser patterning. <i>Energy and Environmental Science</i> , <b>2016</b> , 9, 2302-2313	35.4	57
67	A Series of Pyrene-Substituted Silicon Phthalocyanines as Near-IR Sensitizers in Organic Ternary Solar Cells. <i>Advanced Energy Materials</i> , <b>2016</b> , 6, 1502355	21.8	52
66	Photophysics of Molecular-Weight-Induced Losses in Indacenodithienothiophene-Based Solar Cells. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 4898-4907	15.6	51
65	A generic concept to overcome bandgap limitations for designing highly efficient multi-junction photovoltaic cells. <i>Nature Communications</i> , <b>2015</b> , 6, 7730	17.4	50
64	An Alternative Strategy to Adjust the Recombination Mechanism of Organic Photovoltaics by Implementing Ternary Compounds. <i>Advanced Energy Materials</i> , <b>2015</b> , 5, 1501527	21.8	48
63	Digital Inkjet Printing of High-Efficiency Large-Area Nonfullerene Organic Solar Cells. <i>Advanced Materials Technologies</i> , <b>2019</b> , 4, 1900040	6.8	47
62	Systematic Analysis of Polymer Molecular Weight Influence on the Organic Photovoltaic Performance. <i>Macromolecular Rapid Communications</i> , <b>2015</b> , 36, 1778-97	4.8	46
61	The Influence of Solvent Additive on Polymer Solar Cells Employing Fullerene and Non-Fullerene Acceptors. <i>Advanced Electronic Materials</i> , <b>2018</b> , 4, 1700358	6.4	46
60	Suppression of Hysteresis Effects in Organohalide Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , <b>2017</b> , 4, 1700007	4.6	44

59	Suppressing photooxidation of conjugated polymers and their blends with fullerenes through nickel chelates. <i>Energy and Environmental Science</i> , <b>2017</b> , 10, 2005-2016	35.4	44
58	Concurrent cationic and anionic perovskite defect passivation enables 27.4% perovskite/silicon tandems with suppression of halide segregation. <i>Joule</i> , <b>2021</b> , 5, 1566-1586	27.8	43
57	Extending the environmental lifetime of unpackaged perovskite solar cells through interfacial design. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 11604-11610	13	43
56	Ultra low band gap unsubstituted BODIPY-based copolymer synthesized by palladium catalyzed cross-coupling polymerization for near infrared organic photovoltaics. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 16279-16286	13	41
55	On the Cl...N halogen bond: a rotational study of CF <sub>3</sub> Cl...NH <sub>3</sub> . <i>Chemistry - A European Journal</i> , <b>2012</b> , 18, 1364-8	4.8	41
54	Polaron Delocalization in Donor-Acceptor Polymers and its Impact on Organic Electrochemical Transistor Performance. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 7777-7785	16.4	41
53	End Group Tuning in Acceptor-Donor-Acceptor Nonfullerene Small Molecules for High Fill Factor Organic Solar Cells. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1808429	15.6	33
52	Favorable Mixing Thermodynamics in Ternary Polymer Blends for Realizing High Efficiency Plastic Solar Cells. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1803394	21.8	33
51	Efficient DPP Donor and Nonfullerene Acceptor Organic Solar Cells with High Photon-to-Current Ratio and Low Energetic Loss. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1902441	15.6	32
50	Acene Ring Size Optimization in Fused Lactam Polymers Enabling High n-Type Organic Thermoelectric Performance. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 260-268	16.4	30
49	Panchromatic ternary/quaternary polymer/fullerene BHJ solar cells based on novel silicon naphthalocyanine and silicon phthalocyanine dye sensitizers. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 2550-2562	13	27
48	Interface Molecular Engineering for Laminated Monolithic Perovskite/Silicon Tandem Solar Cells with 80.4% Fill Factor. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1901476	15.6	27
47	Enhancing the Charge Extraction and Stability of Perovskite Solar Cells Using Strontium Titanate (SrTiO <sub>3</sub> ) Electron Transport Layer. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 8090-8097	6.1	26
46	Neat C <sub>60</sub> -based bulk-heterojunction polymer solar cells with excellent acceptor dispersion. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 21416-25	9.5	26
45	A universal solution processed interfacial bilayer enabling ohmic contact in organic and hybrid optoelectronic devices. <i>Energy and Environmental Science</i> , <b>2020</b> , 13, 268-276	35.4	26
44	Challenges to the Success of Commercial Organic Photovoltaic Products. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2100056	21.8	26
43	Enhancement of the Power Conversion Efficiency in Organic Photovoltaics by Unveiling the Appropriate Polymer Backbone Enlargement Approach. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 1840-1848	15.6	25
42	Suppression of Thermally Induced Fullerene Aggregation in Polyfullerene-Based Multiacceptor Organic Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 10971-10982	9.5	23

41	Integrated molecular, morphological and interfacial engineering towards highly efficient and stable solution-processed small molecule solar cells. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 22695-22707	13	23
40	Interfacial Dynamics and Contact Passivation in Perovskite Solar Cells. <i>Advanced Electronic Materials</i> , <b>2019</b> , 5, 1800500	6.4	22
39	Role of Polymer Fractionation in Energetic Losses and Charge Carrier Lifetimes of Polymer: Fullerene Solar Cells. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 19668-19673	3.8	21
38	Low-Temperature Solution-Processed Kesterite Solar Cell Based on in Situ Deposition of Ultrathin Absorber Layer. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 21100-6	9.5	21
37	Fluorination Triggered New Small Molecule Donor Materials for Efficient As-Cast Organic Solar Cells. <i>Small</i> , <b>2018</b> , 14, e1801542	11	20
36	Cs <sub>0.15</sub> FA <sub>0.85</sub> PbI <sub>3</sub> perovskite solar cells for concentrator photovoltaic applications. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 21913-21917	13	20
35	The role of chemical structure in indacenodithienothiophene-alt-benzothiadiazole copolymers for high performance organic solar cells with improved photo-stability through minimization of burn-in loss. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 25064-25076	13	20
34	Printable Dielectric Mirrors with Easily Adjustable and Well-Defined Reflection Maxima for Semitransparent Organic Solar Cells. <i>Advanced Optical Materials</i> , <b>2015</b> , 3, 1424-1430	8.1	19
33	All Slot-Die Coated Non-Fullerene Organic Solar Cells with PCE 11%. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2009996	15.6	19
32	Rational Design of High-Performance Wide-Bandgap (2 eV) Polymer Semiconductors as Electron Donors in Organic Photovoltaics Exhibiting High Open Circuit Voltages (1 V). <i>Macromolecular Rapid Communications</i> , <b>2017</b> , 38, 1600614	4.8	16
31	Beyond Donor-Acceptor (D-A) Approach: Structure-Optoelectronic Properties-Organic Photovoltaic Performance Correlation in New D-A -D-A Low-Bandgap Conjugated Polymers. <i>Macromolecular Rapid Communications</i> , <b>2017</b> , 38, 1600720	4.8	15
30	PyreneFullerene Interaction and Its Effect on the Behavior of Photovoltaic Blends. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 6909-6919	3.8	15
29	Nonfullerene-Based Organic Photodetectors for Ultrahigh Sensitivity Visible Light Detection. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 48836-48844	9.5	15
28	Inkjet Printed Circuits with 2D Semiconductor Inks for High-Performance Electronics. <i>Advanced Electronic Materials</i> , <b>2021</b> , 7, 2100112	6.4	15
27	Fiber-Shaped Electronic Devices. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2101443	21.8	15
26	Light harvesting enhancement upon incorporating alloy structured CdSeXTe1 quantum dots in DPP:PC61BM bulk heterojunction solar cells. <i>Journal of Materials Chemistry C</i> , <b>2017</b> , 5, 654-662	7.1	14
25	Suppressing the Surface Recombination and Tuning the Open-Circuit Voltage of Polymer/Fullerene Solar Cells by Implementing an Aggregative Ternary Compound. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 28803-28811	9.5	13
24	Revealing Minor Electrical Losses in the Interconnecting Layers of Organic Tandem Solar Cells. <i>Advanced Materials Interfaces</i> , <b>2017</b> , 4, 1700776	4.6	13

23	Controlling Electrochemically Induced Volume Changes in Conjugated Polymers by Chemical Design: from Theory to Devices. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2100723	15.6	13
22	High efficiency blue organic light-emitting diodes with below-bandgap electroluminescence. <i>Nature Communications</i> , <b>2021</b> , 12, 4868	17.4	13
21	Adjusting the energy of interfacial states in organic photovoltaics for maximum efficiency. <i>Nature Communications</i> , <b>2021</b> , 12, 1772	17.4	12
20	Polaron Delocalization in Donor-Acceptor Polymers and its Impact on Organic Electrochemical Transistor Performance. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 7856-7864	3.6	12
19	Non-fullerene-based organic photodetectors for infrared communication. <i>Journal of Materials Chemistry C</i> , <b>2021</b> , 9, 2375-2380	7.1	12
18	Synthetic Nuances to Maximize n-Type Organic Electrochemical Transistor and Thermoelectric Performance in Fused Lactam Polymers.. <i>Journal of the American Chemical Society</i> , <b>2022</b> ,	16.4	9
17	A Multilayered Electron Extracting System for Efficient Perovskite Solar Cells. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2004273	15.6	8
16	Improved charge carrier dynamics in polymer/perovskite nanocrystal based hybrid ternary solar cells. <i>Physical Chemistry Chemical Physics</i> , <b>2018</b> , 20, 23674-23683	3.6	8
15	Organic Electrochemical Transistors: An Emerging Technology for Biosensing. <i>Advanced Materials Interfaces</i> , <b>2020</b> , 2102039	4.6	7
14	Guideline for Efficiency Enhancement in Semi-Transparent Thin-Film Organic Photovoltaics with Dielectric Mirrors. <i>Advanced Optical Materials</i> , <b>2016</b> , 4, 1098-1105	8.1	7
13	Indacenodithienothiophene-Based Ternary Organic Solar Cells. <i>Frontiers in Energy Research</i> , <b>2017</b> , 4,	3.8	6
12	Excitation Wavelength-Dependent Internal Quantum Efficiencies in a P3HT/Nonfullerene Acceptor Solar Cell. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 5826-5832	3.8	5
11	Unraveling the Complex Nanomorphology of Ternary Organic Solar Cells with Multimodal Analytical Transmission Electron Microscopy. <i>Solar Rrl</i> , <b>2020</b> , 4, 2000114	7.1	4
10	Propylene and butylene glycol: new alternatives to ethylene glycol in conjugated polymers for bioelectronic applications.. <i>Materials Horizons</i> , <b>2021</b> ,	14.4	4
9	High performance conjugated terpolymers as electron donors in nonfullerene organic solar cells. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 13422-13429	7.1	3
8	Efficient Hybrid Amorphous Silicon/Organic Tandem Solar Cells Enabled by Near-Infrared Absorbing Nonfullerene Acceptors. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2100166	21.8	3
7	Solar Cells: Overcoming the Ambient Manufacturability-Scalability-Performance Bottleneck in Colloidal Quantum Dot Photovoltaics (Adv. Mater. 35/2018). <i>Advanced Materials</i> , <b>2018</b> , 30, 1870260	24	3
6	Infrared Organic Photodetectors Employing Ultralow Bandgap Polymer and Non-Fullerene Acceptors for Biometric Monitoring.. <i>Small</i> , <b>2022</b> , e2200580	11	3

5	Air-Processable and Thermally Stable Hole Transport Layer for Non-Fullerene Organic Solar Cells. <i>ACS Applied Energy Materials</i> , <b>2022</b> , 5, 1023-1030	6.1	2
4	N-type polymer semiconductors incorporating para, meta, and ortho-carborane in the conjugated backbone. <i>Polymer</i> , <b>2022</b> , 240, 124481	3.9	2
3	Ternary organic photodetectors based on pseudo-binaries nonfullerene-based acceptors. <i>JPhys Materials</i> , <b>2021</b> , 4, 045001	4.2	2
2	Organic Solar Cells: An Alternative Strategy to Adjust the Recombination Mechanism of Organic Photovoltaics by Implementing Ternary Compounds (Adv. Energy Mater. 24/2015). <i>Advanced Energy Materials</i> , <b>2015</b> , 5,	21.8	1
1	Instantaneous charge separation in non-fullerene acceptor bulk-heterojunction of highly efficient solar cells. <i>EPJ Web of Conferences</i> , <b>2019</b> , 205, 05010	0.3	0