Federico Bella

List of Publications by Year
in descending order

101 papers	9,244 citations	12330 69 h-index	39675 94 g-index
112 all docs	112 docs citations	112 times ranked	9922 citing authors

#	Article	IF	Citations
1	Improving efficiency and stability of perovskite solar cells with photocurable fluoropolymers. Science, 2016, 354, 203-206.	12.6	748
2	Aqueous dye-sensitized solar cells. Chemical Society Reviews, 2015, 44, 3431-3473.	38.1	389
3	Super Soft All-Ethylene Oxide Polymer Electrolyte for Safe All-Solid Lithium Batteries. Scientific Reports, 2016, 6, 19892.	3.3	300
4	Recent advances in eco-friendly and cost-effective materials towards sustainable dye-sensitized solar cells. Green Chemistry, 2020, 22, 7168-7218.	9.0	272
5	Single-Ion Conducting Polymer Electrolytes for Lithium Metal Polymer Batteries that Operate at Ambient Temperature. ACS Energy Letters, 2016, 1, 678-682.	17.4	270
6	Carbon-based materials for stable, cheaper and large-scale processable perovskite solar cells. Energy and Environmental Science, 2019, 12, 3437-3472.	30.8	223
7	Caesium for Perovskite Solar Cells: An Overview. Chemistry - A European Journal, 2018, 24, 12183-12205.	3.3	138
8	A flexible and portable powerpack by solid-state supercapacitor and dye-sensitized solar cell integration. Journal of Power Sources, 2017, 359, 311-321.	7.8	134
9	Integrated energy conversion and storage devices: Interfacing solar cells, batteries and supercapacitors. Energy Storage Materials, 2022, 51, 400-434.	18.0	133
10	Cellulose-based novel hybrid polymer electrolytes for green and efficient Na-ion batteries. Electrochimica Acta, 2015, 174, 185-190.	5.2	132
11	Low-cost high-efficiency system for solar-driven conversion of CO ₂ to hydrocarbons. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 9735-9740.	7.1	126
12	Perovskite Solar Cells: From the Laboratory to the Assembly Line. Chemistry - A European Journal, 2018, 24, 3083-3100.	3.3	118
13	Metal organic framework laden poly(ethylene oxide) based composite electrolytes for all-solid-state Li-S and Li-metal polymer batteries. Electrochimica Acta, 2018, 285, 355-364.	5.2	118
14	PEO/LAGP hybrid solid polymer electrolytes for ambient temperature lithium batteries by solvent-free, â€œone potâ€• preparation. Journal of Energy Storage, 2019, 26, 100947.	8.1	117
15	Transparent photovoltaic technologies: Current trends towards upscaling. Energy Conversion and Management, 2020, 219, 112982.	9.2	112
16	A New Design Paradigm for Smart Windows: Photocurable Polymers for Quasiâ€Solid Photoelectrochromic Devices with Excellent Longâ€Term Stability under Real Outdoor Operating Conditions. Advanced Functional Materials, 2016, 26, 1127-1137.	14.9	109
17	Multifunctional Luminescent Downâ€Shifting Fluoropolymer Coatings: A Straightforward Strategy to Improve the UVâ€Light Harvesting Ability and Longâ€Term Outdoor Stability of Organic Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2015, 5, 1401312.	19.5	103
18	Hydrogel Electrolytes Based on Xanthan Gum: Green Route towards Stable Dye-Sensitized Solar Cells. Nanomaterials, 2020, 10, 1585.	4.1	103

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19	Photoinduced polymerization: An innovative, powerful and environmentally friendly technique for the preparation of polymer electrolytes for dye-sensitized solar cells. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2013, 16, 1-21.	11.6	102
20	Nanocellulose-laden composite polymer electrolytes for high performing lithiumâ€“sulphur batteries. Energy Storage Materials, 2016, 3, 69-76.	18.0	102
21	Room temperature ionic liquid (RTIL)-based electrolyte cocktails for safe, high working potential Li-based polymer batteries. Journal of Power Sources, 2019, 412, 398-407.	7.8	100
22	Light-cured polymer electrolytes for safe, low-cost and sustainable sodium-ion batteries. Journal of Power Sources, 2017, 365, 293-302.	7.8	99
23	Thermally cured semi-interpenetrating electrolyte networks (s-IPN) for safe and aging-resistant secondary lithium polymer batteries. Journal of Power Sources, 2016, 306, 258-267.	7.8	98
24	Approaching truly sustainable solar cells by the use of water and cellulose derivatives. Green Chemistry, 2017, 19, 1043-1051.	9.0	98
25	Cobalt-Based Electrolytes for Dye-Sensitized Solar Cells: Recent Advances towards Stable Devices. Energies, 2016, 9, 384.	3.1	97
26	UV-Cross-Linked Composite Polymer Electrolyte for High-Rate, Ambient Temperature Lithium Batteries. ACS Applied Energy Materials, 2019, 2, 1600-1607.	5.1	97
27	An Overview on Anodes for Magnesium Batteries: Challenges towards a Promising Storage Solution for Renewables. Nanomaterials, 2021, 11, 810.	4.1	97
28	Understanding the Effect of UV-Induced Cross-Linking on the Physicochemical Properties of Highly Performing PEO/LiTFSI-Based Polymer Electrolytes. Langmuir, 2019, 35, 8210-8219.	3.5	92
29	A water-based and metal-free dye solar cell exceeding 7% efficiency using a cationic poly(3,4-ethylenedioxythiophene) derivative. Chemical Science, 2020, 11, 1485-1493.	7.4	91
30	Light cured networks containing metal organic frameworks as efficient and durable polymer electrolytes for dye-sensitized solar cells. Journal of Materials Chemistry A, 2013, 1, 9033.	10.3	90
31	Unveiling iodine-based electrolytes chemistry in aqueous dye-sensitized solar cells. Chemical Science, 2016, 7, 4880-4890.	7.4	90
32	Unveiling the controversial mechanism of reversible Na storage in TiO2 nanotube arrays: Amorphous versus anatase TiO2. Nano Research, 2017, 10, 2891-2903.	10.4	90
33	Finely tuning electrolytes and photoanodes in aqueous solar cells by experimental design. Solar Energy, 2018, 163, 251-255.	6.1	90
34	Polymer electrolytes and perovskites: lights and shadows in photovoltaic devices. Electrochimica Acta, 2015, 175, 151-161.	5.2	89
35	Paper-based quasi-solid dye-sensitized solar cells. Electrochimica Acta, 2017, 237, 87-93.	5.2	89
36	High-Performing and Stable Wearable Supercapacitor Exploiting rGO Aerogel Decorated with Copper and Molybdenum Sulfides on Carbon Fibers. ACS Applied Energy Materials, 2018, 1, 4440-4447.	5.1	88

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37	Multi-functional energy conversion and storage electrodes using flower-like Zinc oxide nanostructures. Energy, 2014, 65, 639-646.	8.8	87
38	Innovative multipolymer electrolyte membrane designed by oxygen inhibited UV-crosslinking enables solid-state in plane integration of energy conversion and storage devices. Energy, 2019, 166, 789-795.	8.8	87
39	Lignin-Based Polymer Electrolyte Membranes for Sustainable Aqueous Dye-Sensitized Solar Cells. ACS Sustainable Chemistry and Engineering, 2021, 9, 8550-8560.	6.7	87
40	From seaweeds to biopolymeric electrolytes for third generation solar cells: An intriguing approach. Electrochimica Acta, 2015, 151, 306-311.	5.2	86
41	Combined Structural, Chemometric, and Electrochemical Investigation of Vertically Aligned TiO₂ Nanotubes for Na-ion Batteries. ACS Omega, 2018, 3, 8440-8450.	3.5	86
42	Photopolymer Electrolytes for Sustainable, Upscalable, Safe, and Ambientâ€Temperature Sodiumâ€Ion Secondary Batteries. ChemSusChem, 2015, 8, 3668-3676.	6.8	85
43	Luminescent Downshifting by Photoâ€Induced Solâ€Gel Hybrid Coatings: Accessing Multifunctionality on Flexible Organic Photovoltaics via Ambient Temperature Material Processing. Advanced Electronic Materials, 2016, 2, 1600288.	5.1	85
44	Towards green, efficient and durable quasi-solid dye-sensitized solar cells integrated with a cellulose-based gel-polymer electrolyte optimized by a chemometric DoE approach. RSC Advances, 2013, 3, 15993.	3.6	82
45	A UV-crosslinked polymer electrolyte membrane for quasi-solid dye-sensitized solar cells with excellent efficiency and durability. Physical Chemistry Chemical Physics, 2013, 15, 3706.	2.8	82
46	Performance and stability improvements for dye-sensitized solar cells in the presence of luminescent coatings. Journal of Power Sources, 2015, 283, 195-203.	7.8	81
47	Boosting the efficiency of aqueous solar cells: A photoelectrochemical estimation on the effectiveness of TiCl4 treatment. Electrochimica Acta, 2019, 302, 31-37.	5.2	81
48	Chitosan as a paradigm for biopolymer electrolytes in solid-state dye-sensitised solar cells. Polymer, 2021, 230, 124092.	3.8	81
49	A simple route toward next-gen green energy storage concept by nanofibres-based self-supporting electrodes and a solid polymeric design. Carbon, 2016, 107, 811-822.	10.3	80
50	Effect of lithium bis(trifluoromethylsulfonyl)imide salt-doped UV-cured glycidyl methacrylate. Journal of Solid State Electrochemistry, 2015, 19, 3079-3085.	2.5	79
51	Poly(methyl methacrylate-co-butyl acrylate-co-acrylic acid): Physico-chemical characterization and targeted dye sensitized solar cell application. Materials and Design, 2016, 108, 560-569.	7.0	79
52	One-Dimensional ZnO/Gold Junction for Simultaneous and Versatile Multisensing Measurements. Scientific Reports, 2016, 6, 29763.	3.3	79
53	A Chemometric Approach for the Sensitization Procedure of ZnO Flowerlike Microstructures for Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2013, 5, 11288-11295.	8.0	78
54	Additives and salts for dye-sensitized solar cells electrolytes: what is the best choice?. Journal of Power Sources, 2014, 264, 333-343.	7.8	76

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55	Interfacial Effects in Solidâ€“Liquid Electrolytes for Improved Stability and Performance of Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 37797-37803.	8.0	76
56	Waste Cleaning Waste: Photodegradation of Monochlorophenols in the Presence of Waste-Derived Photosensitizer. ACS Sustainable Chemistry and Engineering, 2013, 1, 1545-1550.	6.7	75
57	First-principles study of Na insertion at TiO₂ anatase surfaces: new hints for Na-ion battery design. Nanoscale Advances, 2020, 2, 2745-2751.	4.6	75
58	TiO 2 nanotubes as flexible photoanode for back-illuminated dye-sensitized solar cells with hemi-squaraine organic dye and iodine-free transparent electrolyte. Organic Electronics, 2014, 15, 3715-3722.	2.6	74
59	Newly Elaborated Multipurpose Polymer Electrolyte Encompassing RTILs for Smart Energy-Efficient Devices. ACS Applied Materials & Interfaces, 2015, 7, 12961-12971.	8.0	74
60	Patterning dye-sensitized solar cell photoanodes through a polymeric approach: A perspective. Materials Science in Semiconductor Processing, 2018, 73, 92-98.	4.0	74
61	Photochemically produced quasi-linear copolymers for stable and efficient electrolytes in dye-sensitized solar cells. Journal of Photochemistry and Photobiology A: Chemistry, 2014, 289, 73-80.	3.9	73
62	Direct light-induced polymerization of cobalt-based redox shuttles: an ultrafast way towards stable dye-sensitized solar cells. Chemical Communications, 2015, 51, 16308-16311.	4.1	73
63	Poly(glycidyl ether)s recycling from industrial waste and feasibility study of reuse as electrolytes in sodium-based batteries. Chemical Engineering Journal, 2020, 382, 122934.	12.7	73
64	Nanosponge-Based Composite Gel Polymer Electrolyte for Safer Li-O2 Batteries. Polymers, 2021, 13, 1625.	4.5	73
65	New insights in long-term photovoltaic performance characterization of cellulose-based gel electrolytes for stable dye-sensitized solar cells. Electrochimica Acta, 2014, 146, 44-51.	5.2	72
66	First Pseudohalogen Polymer Electrolyte for Dye-Sensitized Solar Cells Promising for <i>In Situ</i> Photopolymerization. Journal of Physical Chemistry C, 2013, 117, 20421-20430.	3.1	71
67	Novel electrode and electrolyte membranes: Towards flexible dye-sensitized solar cell combining vertically aligned TiO2 nanotube array and light-cured polymer network. Journal of Membrane Science, 2014, 470, 125-131.	8.2	71
68	Photoanodes for Aqueous Solar Cells: Exploring Additives and Formulations Starting from a Commercial TiO₂ Paste. ChemSusChem, 2020, 13, 6562-6573.	6.8	71
69	Toward Totally Flexible Dye-Sensitized Solar Cells Based on Titanium Grids and Polymeric Electrolyte. IEEE Journal of Photovoltaics, 2016, 6, 498-505.	2.5	70
70	Sprayâ€Dried Mesoporous Mixed Cuâ€Ni Oxide@Graphene Nanocomposite Microspheres for High Power and Durable Liâ€Ion Battery Anodes. Advanced Energy Materials, 2018, 8, 1802438.	19.5	70
71	Photo-polymerization of acrylic/methacrylic gelâ€“polymer electrolyte membranes for dye-sensitized solar cells. Chemical Engineering Journal, 2013, 225, 873-879.	12.7	69
72	Electrodes/Electrolyte Interfaces in the Presence of a Surfaceâ€Modified Photopolymer Electrolyte: Application in Dyeâ€Sensitized Solar Cells. ChemPhysChem, 2015, 16, 960-969.	2.1	69

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73	Structureâ€“Performance Correlation of Nanocelluloseâ€Based Polymer Electrolytes for Efficient Quasiâ€solid DSSCs. ChemElectroChem, 2014, 1, 1350-1358.	3.4	68
74	Dispelling clichÃ©s at the nanoscale: the true effect of polymer electrolytes on the performance of dye-sensitized solar cells. Nanoscale, 2015, 7, 12010-12017.	5.6	68
75	Photoanode/Electrolyte Interface Stability in Aqueous Dyeâ€Sensitized Solar Cells. Energy Technology, 2017, 5, 300-311.	3.8	68
76	Polymer electrolytes for dye-sensitized solar cells prepared by photopolymerization of PEG-based oligomers. International Journal of Hydrogen Energy, 2014, 39, 3036-3045.	7.1	67
77	Tuning optical and electronic properties in novel carbazole photosensitizers for p-type dye-sensitized solar cells. Electrochimica Acta, 2018, 292, 805-816.	5.2	67
78	A UV-prepared linear polymer electrolyte membrane for dye-sensitized solar cells. Physica B: Condensed Matter, 2014, 450, 151-154.	2.7	65
79	Xanthanâ€Based Hydrogel for Stable and Efficient Quasiâ€Solid Truly Aqueous Dyeâ€Sensitized Solar Cell with Cobalt Mediator. Solar Rrl, 2021, 5, 2000823.	5.8	65
80	Poly(3,4â€ethylenedioxythiophene) in Dyeâ€Sensitized Solar Cells: Toward Solidâ€State and Platinumâ€Free Photovoltaics. Advanced Sustainable Systems, 2021, 5, 2100025.	5.3	64
81	A review of textile dye-sensitized solar cells for wearable electronics. Ionics, 2022, 28, 2563-2583.	2.4	63
82	Solar H₂ production systems: current status and prospective applications. Green Chemistry, 2022, 24, 5379-5402.	9.0	60
83			

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91	Role and Responsibility of Sustainable Chemistry and Engineering in Providing Safe and Sufficient Nitrogen Fertilizer Supply at Turbulent Times. ACS Sustainable Chemistry and Engineering, 2022, 10, 8997-9001.	6.7	22
92	Floating, Flexible Polymeric Dyeâ€Sensitized Solarâ€Cell Architecture: The Way of Nearâ€Future Photovoltaics. Advanced Materials Technologies, 2016, 1, .	5.8	20
93	Xanthanâ€Based Hydrogel for Stable and Efficient Quasiâ€Solid Truly Aqueous Dyeâ€Sensitized Solar Cell with Cobalt Mediator. Solar Rrl, 2021, 5, 2170074.	5.8	16
94	Across the Board: Federico Bella on Electrochemical Nitrogen Reduction. ChemSusChem, 2020, 13, 3053-3055.	6.8	4
95	Scientific writing and publishing for early-career researchers from the perspective of young chemists. Journal of Materials Chemistry A, 2021, 9, 18674-18680.	10.3	4
96	Structure-Performance Correlation of Nanocellulose-Based Polymer Electrolytes for Efficient Quasi-solid DSSCs. ChemElectroChem, 2014, 1, 1241-1241.	3.4	2
97	Frontispiece: Perovskite Solar Cells: From the Laboratory to the Assembly Line. Chemistry - A European Journal, 2018, 24, .	3.3	1
98	Frontispiece: Caesium for Perovskite Solar Cells: An Overview. Chemistry - A European Journal, 2018, 24, .	3.3	1
99	Photopolymers for Third-generation Solar Cells. RSC Polymer Chemistry Series, 2018, , 504-523.	0.2	1
100	Nanostructured photoelectrodes and polymeric nanointerfaces engineering: The critical transition from rigid to flexible dye-sensitized solar cells. , 2015, , .		0
101	ChiMiCapisce. ChemistryViews, 0, , .	0.0	0