

Rebeca Marcilla

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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.

110
papers

5,703
citations

42
h-index

73
g-index

115
ext. papers

6,483
ext. citations

8.4
avg, IF

5.99
L-index

#	Paper	IF	Citations
110	Tuning the solubility of polymerized ionic liquids by simple anion-exchange reactions. <i>Journal of Polymer Science Part A</i> , 2004 , 42, 208-212	2.5	295
109	Recent Advances in Innovative Polymer Electrolytes based on Poly(ionic liquid)s. <i>Electrochimica Acta</i> , 2015 , 175, 18-34	6.7	289
108	Ternary polymer electrolytes containing pyrrolidinium-based polymeric ionic liquids for lithium batteries. <i>Journal of Power Sources</i> , 2010 , 195, 3668-3675	8.9	253
107	Pyrrolidinium-based polymeric ionic liquids as mechanically and electrochemically stable polymer electrolytes. <i>Journal of Power Sources</i> , 2009 , 188, 558-563	8.9	221
106	Influence of Ionic Liquids on the Electrical Conductivity and Morphology of PEDOT:PSS Films. <i>Chemistry of Materials</i> , 2007 , 19, 2147-2149	9.6	204
105	Tailor-made polymer electrolytes based upon ionic liquids and their application in all-plastic electrochromic devices. <i>Electrochemistry Communications</i> , 2006 , 8, 482-488	5.1	181
104	Synthesis by RAFT and Ionic Responsiveness of Double Hydrophilic Block Copolymers Based on Ionic Liquid Monomer Units. <i>Macromolecules</i> , 2008 , 41, 6299-6308	5.5	172
103	Porous Polybenzimidazole Membranes Doped with Phosphoric Acid: Highly Proton-Conducting Solid Electrolytes. <i>Chemistry of Materials</i> , 2004 , 16, 604-607	9.6	167
102	NiCoMnO ₄ nanoparticles on N-doped graphene: Highly efficient bifunctional electrocatalyst for oxygen reduction/evolution reactions. <i>Applied Catalysis B: Environmental</i> , 2017 , 201, 241-252	21.8	166
101	Synthesis of Novel Polycations Using the Chemistry of Ionic Liquids. <i>Macromolecular Chemistry and Physics</i> , 2005 , 206, 299-304	2.6	142
100	Fiber-Embedded Electrolyte-Gated Field-Effect Transistors for e-Textiles. <i>Advanced Materials</i> , 2009 , 21, 573-7	24	141
99	A simplified all-polymer flexible electrochromic device. <i>Electrochimica Acta</i> , 2004 , 49, 3555-3559	6.7	139
98	All-solid state supercapacitors operating at 3.5 V by using ionic liquid based polymer electrolytes. <i>Journal of Power Sources</i> , 2015 , 279, 472-480	8.9	133
97	Woven electrochemical transistors on silk fibers. <i>Advanced Materials</i> , 2011 , 23, 898-901	24	133
96	Nano-objects on a round trip from water to organics in a polymeric ionic liquid vehicle. <i>Small</i> , 2006 , 2, 507-12	11	124
95	Development of safe, green and high performance ionic liquids-based batteries (ILLIBATT project). <i>Journal of Power Sources</i> , 2011 , 196, 9719-9730	8.9	119
94	Synthesis and characterization of new polymeric ionic liquid microgels. <i>Journal of Polymer Science Part A</i> , 2006 , 44, 3958-3965	2.5	108

93	Redox flow batteries: Status and perspective towards sustainable stationary energy storage. <i>Journal of Power Sources</i> , 2021 , 481, 228804	8.9	105
92	Enzymatic polyester synthesis in ionic liquids. <i>European Polymer Journal</i> , 2006 , 42, 1215-1221	5.2	84
91	Nanostructured porous wires of iron cobaltite: novel positive electrode for high-performance hybrid energy storage devices. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 16849-16859	13	82
90	Performance of solid state supercapacitors based on polymer electrolytes containing different ionic liquids. <i>Journal of Power Sources</i> , 2016 , 326, 560-568	8.9	75
89	All-plastic electrochromic devices based on PEDOT as switchable optical attenuator in the near IR. <i>Solar Energy Materials and Solar Cells</i> , 2008 , 92, 101-106	6.4	68
88	Macroscopic fibres of CNTs as electrodes for multifunctional electric double layer capacitors: from quantum capacitance to device performance. <i>Nanoscale</i> , 2016 , 8, 3620-8	7.7	66
87	Multiresponsive PEDOT Ionic Liquid Materials for the Design of Surfaces with Switchable Wettability. <i>Advanced Functional Materials</i> , 2009 , 19, 3326-3333	15.6	64
86	Light-emitting electrochemical cells using polymeric ionic liquid/polyfluorene blends as luminescent material. <i>Applied Physics Letters</i> , 2010 , 96, 043308	3.4	63
85	High performance hybrid supercapacitors by using para-Benzoquinone ionic liquid redox electrolyte. <i>Journal of Power Sources</i> , 2016 , 306, 711-717	8.9	59
84	Ionic Liquid Immobilized Enzyme for Biocatalytic Synthesis of Conducting Polyaniline. <i>Macromolecules</i> , 2006 , 39, 8547-8549	5.5	59
83	Facile synthesis of supramolecular ionic polymers that combine unique rheological, ionic conductivity, and self-healing properties. <i>Macromolecular Rapid Communications</i> , 2012 , 33, 314-8	4.8	58
82	New Organic Dispersions of Conducting Polymers Using Polymeric Ionic Liquids as Stabilizers. <i>Macromolecular Rapid Communications</i> , 2005 , 26, 1122-1126	4.8	58
81	Tough Electrodes: Carbon Nanotube Fibers as the Ultimate Current Collectors/Active Material for Energy Management Devices. <i>Chemistry of Materials</i> , 2015 , 27, 6901-6917	9.6	56
80	Energy storage in structural composites by introducing CNT fiber/polymer electrolyte interleaves. <i>Scientific Reports</i> , 2018 , 8, 3407	4.9	54
79	Combined electrochromic and plasmonic optical responses in conducting polymer/metal nanoparticle films. <i>Journal of Nanoscience and Nanotechnology</i> , 2007 , 7, 2938-41	1.3	54
78	Large-Area, All-Solid, and Flexible Electric Double Layer Capacitors Based on CNT Fiber Electrodes and Polymer Electrolytes. <i>Advanced Materials Technologies</i> , 2017 , 2, 1600290	6.8	51
77	Irreversible thermo-chromic behavior in gold and silver nanorod/polymeric ionic liquid nanocomposite films. <i>ACS Applied Materials & Interfaces</i> , 2009 , 1, 348-52	9.5	50
76	Redox-active poly(ionic liquid)s as active materials for energy storage applications. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 16231-16240	13	49

75	A new approach to hydrophobic and water-resistant poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate) films using ionic liquids. <i>Journal of Materials Chemistry</i> , 2008 , 18, 5354		49
74	Insights into the influence of pore size distribution and surface functionalities in the behaviour of carbon supercapacitors. <i>Electrochimica Acta</i> , 2012 , 86, 241-247	6.7	48
73	Manganese dioxide decoration of macroscopic carbon nanotube fibers: From high-performance liquid-based to all-solid-state supercapacitors. <i>Journal of Power Sources</i> , 2017 , 372, 64-73	8.9	45
72	Electrochemical deposition of ZnO in a room temperature ionic liquid: 1-Butyl-1-methylpyrrolidinium bis(trifluoromethane sulfonyl)imide. <i>Electrochemistry Communications</i> , 2009 , 11, 2184-2186	5.1	45
71	Functional porous carbon nanospheres from sustainable precursors for high performance supercapacitors. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 16263-16272	13	44
70	Insights into the energy storage mechanism of hybrid supercapacitors with redox electrolytes by Electrochemical Impedance Spectroscopy. <i>Electrochimica Acta</i> , 2018 , 263, 110-117	6.7	44
69	New Anthraquinone-Based Conjugated Microporous Polymer Cathode with Ultrahigh Specific Surface Area for High-Performance Lithium-Ion Batteries. <i>Advanced Functional Materials</i> , 2020 , 30, 1908074	15.6	44
68	Gas-Phase Functionalization of Macroscopic Carbon Nanotube Fiber Assemblies: Reaction Control, Electrochemical Properties, and Use for Flexible Supercapacitors. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 5760-5770	9.5	42
67	Electrochemical synthesis of PEDOT derivatives bearing imidazolium-ionic liquid moieties. <i>Journal of Polymer Science Part A</i> , 2009 , 47, 3010-3021	2.5	40
66	Vanadium nitride@N-doped carbon nanocomposites: tuning of pore structure and particle size through salt templating and its influence on supercapacitance in ionic liquid media. <i>RSC Advances</i> , 2014 , 4, 26981-26989	3.7	39
65	Synthesis and characterization of poly(1-vinyl-3-alkylimidazolium) iodide polymers for quasi-solid electrolytes in dye sensitized solar cells. <i>Electrochimica Acta</i> , 2010 , 56, 42-46	6.7	39
64	A Membrane-Free Redox Flow Battery with Two Immiscible Redox Electrolytes. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 12460-12465	16.4	38
63	Innovative materials and applications based on poly(3,4-ethylenedioxythiophene) and ionic liquids. <i>Journal of Materials Chemistry</i> , 2010 , 20, 7613		38
62	Cholinium-based ion gels as solid electrolytes for long-term cutaneous electrophysiology. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 8942-8948	7.1	37
61	Controlled electrochemical functionalization of CNT fibers: Structure-chemistry relations and application in current collector-free all-solid supercapacitors. <i>Carbon</i> , 2019 , 142, 599-609	10.4	37
60	Innovative polyelectrolytes/poly(ionic liquid)s for energy and the environment. <i>Polymer International</i> , 2017 , 66, 1119-1128	3.3	33
59	Polymers Bearing Catechol Pendants as Universal Hosts for Aqueous Rechargeable H ⁺ , Li-Ion, and Post-Li-ion (Mono-, Di-, and Trivalent) Batteries. <i>ACS Applied Energy Materials</i> , 2019 , 2, 3035-3041	6.1	32
58	Facile synthesis of NiCoMnO ₄ nanoparticles as novel electrode materials for high-performance asymmetric energy storage devices. <i>RSC Advances</i> , 2016 , 6, 28970-28980	3.7	32

57	Porous NiCoMn ternary metal oxide/graphene nanocomposites for high performance hybrid energy storage devices. <i>Electrochimica Acta</i> , 2018 , 279, 44-56	6.7	31
56	Integration of Redox-Active Catechol Pendants into Poly(ionic liquid) for the Design of High-Performance Lithium-Ion Battery Cathodes. <i>Chemistry of Materials</i> , 2018 , 30, 5831-5835	9.6	29
55	Role of textural properties and surface functionalities of selected carbons on the electrochemical behaviour of ionic liquid based-supercapacitors. <i>RSC Advances</i> , 2012 , 2, 8439	3.7	28
54	Tuning the Properties of Functional Pyrrolidinium Polymers by (Co)polymerization of Diallyldimethylammonium Ionic Liquids. <i>Macromolecular Rapid Communications</i> , 2010 , 31, 1646-51	4.8	28
53	PEDOT:Poly(1-vinyl-3-ethylimidazolium) dispersions as alternative materials for optoelectronic devices. <i>Journal of Polymer Science Part A</i> , 2008 , 46, 3150-3154	2.5	28
52	Investigation of different anode materials for aluminium rechargeable batteries. <i>Journal of Power Sources</i> , 2018 , 374, 77-83	8.9	28
51	Fractal carbon nanotube fibers with mesoporous crystalline structure. <i>Carbon</i> , 2017 , 122, 47-53	10.4	27
50	Anchored NiCoMnS ₄ nanoparticles on N-doped rGO: High-performance bifunctional electrocatalysts for rechargeable Zn-Air batteries. <i>Energy Storage Materials</i> , 2019 , 20, 216-224	19.4	27
49	Electrochemical reduction of O ₂ in 1-butyl-1-methylpyrrolidinium bis(trifluoromethanesulfonyl)imide ionic liquid containing Zn ²⁺ cations: deposition of non-polar oriented ZnO nanocrystalline films. <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 13433-40	3.6	27
48	Cyclohexanedione as the negative electrode reaction for aqueous organic redox flow batteries. <i>Applied Energy</i> , 2017 , 197, 318-326	10.7	26
47	Improving Performance of Electric Double Layer Capacitors with a Mixture of Ionic Liquid and Acetonitrile as the Electrolyte by Using Mass-Balancing Carbon Electrodes. <i>Journal of the Electrochemical Society</i> , 2013 , 160, A2064-A2069	3.9	26
46	Use of polymeric ionic liquids as stabilizers in the synthesis of polypyrrole organic dispersions. <i>Synthetic Metals</i> , 2006 , 156, 1133-1138	3.6	25
45	Insights into charge storage and electroactivation of mixed metal sulfides in alkaline media: NiCoMn ternary metal sulfide nano-needles forming core-shell structures for hybrid energy storage. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 20414-20424	13	24
44	A critical perspective on rechargeable Al-ion battery technology. <i>Dalton Transactions</i> , 2019 , 48, 9906-9913	11.3	24
43	Enzymatic synthesis of water-soluble conducting poly(3,4-ethylenedioxythiophene): A simple enzyme immobilization strategy for recycling and reusing. <i>Journal of Polymer Science Part A</i> , 2009 , 47, 306-309	2.5	24
42	Electrode Engineering of Redox-Active Conjugated Microporous Polymers for Ultra-High Areal Capacity Organic Batteries. <i>ACS Energy Letters</i> , 2020 , 5, 2945-2953	20.1	24
41	An Ultrahigh Performance Zinc-Organic Battery using Poly(catechol) Cathode in Zn(TFSI) ₂ -Based Concentrated Aqueous Electrolytes. <i>Advanced Energy Materials</i> , 2021 , 11, 2100939	21.8	23
40	High rate hybrid MnO ₂ @CNT fabric anodes for Li-ion batteries: properties and a lithium storage mechanism study by in situ synchrotron X-ray scattering. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 26596-26606	13.2	22

39	Bimetal zeolitic imidazolate framework (ZIF-9) derived nitrogen-doped porous carbon as efficient oxygen electrocatalysts for rechargeable Zn-air batteries. <i>Journal of Power Sources</i> , 2019 , 427, 299-308	8.9	21
38	Doping of Self-Standing CNT Fibers: Promising Flexible Air-Cathodes for High-Energy-Density Structural Zn/Air Batteries. <i>ACS Applied Energy Materials</i> , 2018 , 1, 2434-2439	6.1	21
37	NEW AMINE FUNCTIONAL IONIC LIQUID AS BUILDING BLOCK IN NANOTECHNOLOGY. <i>Nano</i> , 2007 , 02, 169-173	1.1	21
36	Simultaneous synthesis of gold nanoparticles and conducting poly(3,4-ethylenedioxythiophene) towards optoelectronic nanocomposites. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2008 , 205, 1451-1454	1.6	18
35	Unexpected Contribution of Current Collector to the Cost of Rechargeable Al-Ion Batteries. <i>ChemElectroChem</i> , 2019 , 6, 2766-2770	4.3	16
34	Synthesis and application of NiMnO ₃ -rGO nanocomposites as electrode materials for hybrid energy storage devices. <i>Applied Surface Science</i> , 2018 , 460, 74-83	6.7	16
33	Pioneering Use of Ionic Liquid-Based Aqueous Biphasic Systems as Membrane-Free Batteries. <i>Advanced Science</i> , 2018 , 5, 1800576	13.6	16
32	Anchored Fe ₃ O ₄ Nanoparticles on rGO Nanosheets as High-Power Negative Electrodes for Aqueous Batteries. <i>ChemElectroChem</i> , 2017 , 4, 1295-1305	4.3	15
31	Pore structure and electrochemical properties of CNT-based electrodes studied by in situ small/wide angle X-ray scattering. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 5305-5314	13	15
30	New insights into phenazine-based organic redox flow batteries by using high-throughput DFT modelling. <i>Sustainable Energy and Fuels</i> , 2020 , 4, 5513-5521	5.8	15
29	High-performance all-organic aqueous batteries based on a poly(imide) anode and poly(catechol) cathode. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 505-514	13	15
28	A Membrane-Free Redox Flow Battery with Two Immiscible Redox Electrolytes. <i>Angewandte Chemie</i> , 2017 , 129, 12634-12639	3.6	14
27	One-step growth of gold nanorods using a β -diketone reducing agent. <i>Journal of Nanoparticle Research</i> , 2009 , 11, 1241-1245	2.3	14
26	Transparent and flexible high-power supercapacitors based on carbon nanotube fibre aerogels. <i>Nanoscale</i> , 2020 , 12, 16980-16986	7.7	12
25	Organic batteries based on just redox polymers. <i>Progress in Polymer Science</i> , 2021 , 122, 101449	29.6	12
24	A Route to High-Toughness Battery Electrodes. <i>ACS Applied Energy Materials</i> , 2019 , 2, 5889-5899	6.1	11
23	Critical aspects of membrane-free aqueous battery based on two immiscible neutral electrolytes. <i>Energy Storage Materials</i> , 2020 , 26, 400-407	19.4	11
22	Solvent and acidification method effects in the performance of new sulfonated copolyimides membranes in PEM-fuel cells. <i>Journal of Power Sources</i> , 2005 , 151, 63-68	8.9	10

21	Exploring the Versatility of Membrane-Free Battery Concept Using Different Combinations of Immiscible Redox Electrolytes. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 41246-41256	9.5	10
20	Chemical sensing based on the plasmonic response of nanoparticle aggregation: anion sensing in nanoparticles stabilized by amino-functional ionic liquid. <i>Frontiers of Physics in China</i> , 2010 , 5, 330-336		9
19	Hierarchical Co ₃ O ₄ nanorods anchored on nitrogen doped reduced graphene oxide: a highly efficient bifunctional electrocatalyst for rechargeable Zn air batteries. <i>Catalysis Science and Technology</i> , 2020 , 10, 1444-1457	5.5	9
18	Al-Ion Battery Based on Semisolid Electrodes for Higher Specific Energy and Lower Cost. <i>ACS Applied Energy Materials</i> , 2020 , 3, 2285-2289	6.1	8
17	Polymeric ionic liquids for the fast preparation of superhydrophobic coatings by the simultaneous spraying of oppositely charged polyelectrolytes and nanoparticles. <i>Polymer Journal</i> , 2011 , 43, 966-970	2.7	8
16	Widely commercial carbonaceous materials as cathode for Al-ion batteries. <i>Carbon</i> , 2020 , 167, 475-484	10.4	7
15	Proton trap effect on catecholpyridine redox polymer nanoparticles as organic electrodes for lithium batteries. <i>Sustainable Energy and Fuels</i> , 2020 , 4, 3934-3942	5.8	6
14	Synthesis and electro-optical characterization of new conducting PEDOT/Au-nanorods nanocomposites. <i>Polymers for Advanced Technologies</i> , 2011 , 22, 1665-1672	3.2	5
13	Revealing the Mechanism of Electrochemical Lithiation of Carbon Nanotube Fibers. <i>ACS Applied Energy Materials</i> , 2020 , 3, 8695-8705	6.1	4
12	Macromolecular Engineering of Poly(catechol) Cathodes towards High-Performance Aqueous Zinc-Polymer Batteries. <i>Polymers</i> , 2021 , 13,	4.5	4
11	Composite Fabrics of Conformal MoS ₂ Grown on CNT Fibers: Tough Battery Anodes without Metals or Binders. <i>ACS Applied Energy Materials</i> , 2021 , 4, 5668-5676	6.1	4
10	Using redox electrolytes to extend the charge storage capacity in an aqueous hybrid ion battery. <i>Chemical Engineering Journal</i> , 2021 , 411, 128416	14.7	3
9	Development of high performing polymer electrolytes based on superconcentrated solutions. <i>Journal of Power Sources</i> , 2021 , 506, 230220	8.9	2
8	Mitigating capacity fading in aqueous organic redox flow batteries through a simple electrochemical charge balancing protocol. <i>Journal of Power Sources</i> , 2021 , 512, 230516	8.9	2
7	Ionic Liquids and Polymers in Energy 2015 , 199-229		1
6	Mathematical modelling of a membrane-less redox flow battery based on immiscible electrolytes. <i>Applied Mathematical Modelling</i> , 2022 , 101, 96-110	4.5	1
5	All-Electrochemical Nanofabrication of Stacked Ternary Metal Sulfide/Graphene Electrodes for High-Performance Alkaline Batteries.. <i>Small</i> , 2022 , e2106403	11	0
4	Thermoconformable, Flexible Lithium-Ion Batteries. <i>Advanced Materials Technologies</i> , 2101635	6.8	0

- 3 A Significantly Improved Polymer||Ni(OH)₂ Alkaline Rechargeable Battery Using Anthraquinone-based Conjugated Microporous Polymer Anode. *Materials Today Energy*, **2022**, 101014 7 ○
- 2 Materials science of multifunctional supercapacitors based on nanocarbon networks **2019**, 249-278
- 1 A Li-Ion Battery **2022**, 269-298