

Renaud Bouchet

List of Publications by Citations

Source: <https://exaly.com/author-pdf/4330191/renaud-bouchet-publications-by-citations.pdf>

Version: 2024-04-29

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

82

papers

5,053

citations

30

h-index

70

g-index

95

ext. papers

5,610

ext. citations

7.3

avg, IF

5.48

L-index

#	Paper	IF	Citations
82	Single-ion BAB triblock copolymers as highly efficient electrolytes for lithium-metal batteries. <i>Nature Materials</i> , 2013 , 12, 452-7	27	965
81	Toward Understanding of Electrical Limitations (Electronic, Ionic) in LiMPO[sub 4] (M=Fe, Mn) Electrode Materials. <i>Journal of the Electrochemical Society</i> , 2005 , 152, A913	3.9	539
80	Proton conduction in acid doped polybenzimidazole. <i>Solid State Ionics</i> , 1999 , 118, 287-299	3.3	409
79	Dendrite short-circuit and fuse effect on Li/polymer/Li cells. <i>Electrochimica Acta</i> , 2006 , 51, 5334-5340	6.7	384
78	The Big Problem of Small Particles: A Comparison of Methods for Determination of Particle Size in Nanocrystalline Anatase Powders. <i>Chemistry of Materials</i> , 2005 , 17, 2378-2385	9.6	227
77	Direct observation of lithium polysulfides in lithium-sulfur batteries using operando X-ray diffraction. <i>Nature Energy</i> , 2017 , 2,	62.3	182
76	Tortuosity of porous particles. <i>Analytical Chemistry</i> , 2007 , 79, 9115-21	7.8	174
75	Mechanism of ion transport in PEO/LiTFSI complexes: Effect of temperature, molecular weight and end groups. <i>Solid State Ionics</i> , 2012 , 227, 119-127	3.3	153
74	Lithium/Sulfur Batteries Upon Cycling: Structural Modifications and Species Quantification by In Situ and Operando X-Ray Diffraction Spectroscopy. <i>Advanced Energy Materials</i> , 2015 , 5, 1500165	21.8	126
73	A New Approach to Develop Safe All-Inorganic Monolithic Li-Ion Batteries. <i>Advanced Energy Materials</i> , 2011 , 1, 179-183	21.8	116
72	Critical Role of Polymeric Binders on the Electronic Transport Properties of Composites Electrode. <i>Journal of the Electrochemical Society</i> , 2006 , 153, A679	3.9	97
71	Optimization of Block Copolymer Electrolytes for Lithium Metal Batteries. <i>Chemistry of Materials</i> , 2015 , 27, 4682-4692	9.6	93
70	An EIS Study of the Anode Li/PEO-LiTFSI of a Li Polymer Battery. <i>Journal of the Electrochemical Society</i> , 2003 , 150, A1385	3.9	93
69	Charge Transport in Nanostructured PSBEOBS Triblock Copolymer Electrolytes. <i>Macromolecules</i> , 2014 , 47, 2659-2665	5.5	88
68	The Stone Age Revisited: Building a Monolithic Inorganic Lithium-Ion Battery. <i>Advanced Functional Materials</i> , 2012 , 22, 2140-2147	15.6	86
67	Electrical properties and defect chemistry of anatase (TiO ₂). <i>Solid State Ionics</i> , 2006 , 177, 229-236	3.3	79
66	A thermodynamic approach to proton conductivity in acid-doped polybenzimidazole. <i>Solid State Ionics</i> , 2001 , 145, 69-78	3.3	73

65	Electrochemical impedance spectroscopy of a LiS battery: Part 1. Influence of the electrode and electrolyte compositions on the impedance of symmetric cells. <i>Electrochimica Acta</i> , 2017 , 244, 61-68	6.7	50
64	EXAFS Study of Dopant Segregation (Zn, Nb) in Nanocrystalline Anatase (TiO ₂). <i>Chemistry of Materials</i> , 2003 , 15, 4996-5002	9.6	45
63	Tailoring the Binder of Composite Electrode for Battery Performance Optimization. <i>Electrochemical and Solid-State Letters</i> , 2005 , 8, A17		43
62	Influence of molecule size on its transport properties through a porous medium. <i>Analytical Chemistry</i> , 2010 , 82, 2668-79	7.8	42
61	Multiscale characterization of a lithium/sulfur battery by coupling operando X-ray tomography and spatially-resolved diffraction. <i>Scientific Reports</i> , 2017 , 7, 2755	4.9	40
60	Structural changes and thermal properties of aluminium micro- and nano-powders. <i>Acta Materialia</i> , 2010 , 58, 4224-4232	8.4	40
59	Acid-Doped Polybenzimidazole as the Membrane of Electrochemical Hydrogen Sensors. <i>Journal of the Electrochemical Society</i> , 1997 , 144, L95-L97	3.9	40
58	Structure and Chemical Bonding in Zr-Doped Anatase TiO ₂ Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 43-47	3.8	40
57	Hot pressing of nanocrystalline TiO ₂ (anatase) ceramics with controlled microstructure. <i>Journal of the European Ceramic Society</i> , 2007 , 27, 2641-2646	6	37
56	Comparison of single-ion-conductor block-copolymer electrolytes with Polystyrene-TFSI and Polymethacrylate-TFSI structural blocks. <i>Electrochimica Acta</i> , 2018 , 269, 250-261	6.7	36
55	Elaboration of controlled size Li _{1.5} Al _{0.5} Ge _{1.5} (PO ₄) ₃ crystallites from glass-ceramics. <i>Solid State Ionics</i> , 2014 , 266, 44-50	3.3	33
54	Flash sintering of ionic conductors: The need of a reversible electrochemical reaction. <i>Journal of the European Ceramic Society</i> , 2016 , 36, 1253-1260	6	31
53	Electrochemical impedance spectroscopy study of lithium/sulfur batteries: Useful technique to reveal the Li/S electrochemical mechanism. <i>Electrochimica Acta</i> , 2020 , 359, 136944	6.7	30
52	Influence of the binder and preparation process on the positive electrode electrochemical response and Li/S system performances. <i>Electrochimica Acta</i> , 2016 , 210, 492-501	6.7	29
51	Non-woven carbon paper as current collector for Li-ion/Li ₂ S system: Understanding of the first charge mechanism. <i>Electrochimica Acta</i> , 2015 , 180, 178-186	6.7	28
50	Evaluation of GPE performances in lithium metal battery technology by means of simple polarization tests. <i>Journal of Power Sources</i> , 2006 , 158, 564-570	8.9	28
49	Effect of interfaces on the melting of PEO confined in triblock PS-b-PEO-b-PS copolymers. <i>Langmuir</i> , 2013 , 29, 10874-80	4	27
48	Local atomic and electronic structure in nanocrystalline Sn-doped anatase TiO ₂ . <i>ChemPhysChem</i> , 2006 , 7, 2377-83	3.2	26

47	Theoretical Analysis of IS of Polycrystalline Materials with Blocking or Conducting Grain Boundaries: From Microcrystals to Nanocrystals. <i>Journal of the Electrochemical Society</i> , 2003 , 150, E348	3.9	26
46	Lithium Metal Batteries Operating at Room Temperature Based on Different PEO-PVdF Separator Configurations. <i>Journal of the Electrochemical Society</i> , 2004 , 151, A873	3.9	25
45	Room temperature lithium metal batteries based on a new Gel Polymer Electrolyte membrane. <i>Journal of Power Sources</i> , 2005 , 144, 231-237	8.9	25
44	Inter-electrode in situ concentration cartography in lithium/polymer electrolyte/lithium cells. <i>Journal of Electroanalytical Chemistry</i> , 2005 , 584, 70-74	4.1	24
43	Hot compaction of nanocrystalline TiO ₂ (anatase) ceramics. Mechanisms of densification: Grain size and doping effects. <i>Acta Materialia</i> , 2006 , 54, 3575-3583	8.4	23
42	Theoretical analysis of the impedance spectra of electroceramics Part 2: isotropic grain boundaries. <i>Journal of Electroceramics</i> , 2006 , 16, 229-238	1.5	22
41	Electrochemical impedance spectroscopy of a Li ₈ battery: Part 2. Influence of separator chemistry on the lithium electrode/electrolyte interface. <i>Electrochimica Acta</i> , 2017 , 255, 379-390	6.7	21
40	Solid-state hydrogen sensor based on acid-doped polybenzimidazole. <i>Sensors and Actuators B: Chemical</i> , 2001 , 76, 610-616	8.5	19
39	Polybenzimidazole-Based Hydrogen Sensors I. Mechanism of Response with an E-TEK Gas Diffusion Electrode. <i>Journal of the Electrochemical Society</i> , 2000 , 147, 3125	3.9	19
38	Investigation of non-woven carbon paper as a current collector for sulfur positive electrode Understanding of the mechanism and potential applications for Li/S batteries. <i>Electrochimica Acta</i> , 2016 , 211, 697-703	6.7	18
37	Novel architecture of composite electrode for optimization of lithium battery performance. <i>Journal of Power Sources</i> , 2006 , 157, 438-442	8.9	18
36	In Operando Small-Angle Neutron Scattering Study of Single-Ion Copolymer Electrolyte for Li-Metal Batteries. <i>ACS Energy Letters</i> , 2018 , 3, 1-6	20.1	18
35	New approach to design solid block copolymer electrolytes for 40 °C lithium metal battery operation. <i>Electrochimica Acta</i> , 2017 , 238, 21-29	6.7	16
34	Electrochemical Impedance Spectroscopy and X-ray Photoelectron Spectroscopy Study of Lithium Metal Surface Aging in Imidazolium-Based Ionic Liquid Electrolytes Performed at Open-Circuit Voltage. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 21955-21964	9.5	15
33	Vinyl monomers bearing a sulfonyl(trifluoromethane sulfonyl) imide group: synthesis and polymerization using nitroxide-mediated polymerization. <i>Polymer Chemistry</i> , 2016 , 7, 6901-6910	4.9	15
32	Effect of composite electrode thickness on the electrochemical performances of all-solid-state li-ion batteries. <i>Journal of Electroceramics</i> , 2017 , 38, 189-196	1.5	14
31	Remarkable impact of grains boundaries on the chemical delithiation kinetics of LiFePO ₄ . <i>Solid State Ionics</i> , 2017 , 300, 187-194	3.3	12
30	Polybenzimidazole-Based Hydrogen Sensors II. Effect of the Electrode Preparation. <i>Journal of the Electrochemical Society</i> , 2000 , 147, 3548	3.9	12

29	XPS and SEM-EDX Study of Electrolyte Nature Effect on Li Electrode in Lithium Metal Batteries. <i>ACS Applied Energy Materials</i> , 2018 ,	6.1	12
28	Operando investigation of the lithium/sulfur battery system by coupled X-ray absorption tomography and X-ray diffraction computed tomography. <i>Journal of Power Sources</i> , 2020 , 468, 228287	8.9	11
27	Effect of Electrode and Electrolyte Thicknesses on All-Solid-State Battery Performance Analyzed With the Sand Equation. <i>Frontiers in Energy Research</i> , 2020 , 7,	3.8	11
26	Mixed potential type hydrogen sensor. <i>Ionics</i> , 2003 , 9, 168-175	2.7	10
25	Photo-Cross-Linked Diblock Copolymer Micelles: Quantitative Study of Photochemical Efficiency, Micelles Morphologies and their Thermal Behavior. <i>Macromolecules</i> , 2014 , 47, 2420-2429	5.5	9
24	A Solid-State Potentiometric Sensor Based on Polybenzimidazole for Hydrogen Determination in Air. <i>Journal of the Electrochemical Society</i> , 2002 , 149, H119	3.9	9
23	Novel single-ion conducting electrolytes based on vinylidene fluoride copolymer for lithium metal batteries. <i>Journal of Power Sources</i> , 2021 , 498, 229920	8.9	9
22	Impact of the solute exclusion on the bed longitudinal diffusion coefficient and particle intra-tortuosity determined by ISEC. <i>Journal of Chromatography A</i> , 2014 , 1325, 179-85	4.5	8
21	A 1,2,3-triazolate lithium salt with ionic liquid properties at room temperature. <i>Chemical Communications</i> , 2018 , 54, 9035-9038	5.8	7
20	Restricted lithium ion dynamics in PEO-based block copolymer electrolytes measured by high-field nuclear magnetic resonance relaxation. <i>Journal of Chemical Physics</i> , 2017 , 147, 134902	3.9	6
19	Evolution of the electrode-electrolyte interface in a lithium-polymer battery. <i>Solid State Ionics</i> , 2006 , 177, 141-143	3.3	6
18	A comprehensive multiscale moisture transport analysis: From porous reference silicates to cement-based materials. <i>European Physical Journal: Special Topics</i> , 2015 , 224, 1749-1768	2.3	5
17	Fingerprinting Mean Composition of Lithium Polysulfide Standard Solutions by Applying High-Energy Resolution Fluorescence Detected X-ray Absorption Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 5446-5450	6.4	5
16	Quantification of the Local Topological Variations of Stripped and Plated Lithium Metal by X-ray Tomography. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 41390-41397	9.5	5
15	Operando XPS: A Novel Approach for Probing the Lithium/Electrolyte Interphase Dynamic Evolution. <i>Journal of Physical Chemistry A</i> , 2021 , 125, 1069-1081	2.8	5
14	Separation of Bulk, Surface, and Topological Contributions to the Conductivity of Suspensions of Porous Particles. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 5090-5096	3.8	4
13	Improvement of lithium battery performance through composite electrode microstructure optimization. <i>Ionics</i> , 2004 , 10, 443-449	2.7	4
12	Non-trivial network driven modifications of ion transport in an ionic liquid confined inside a polymer system. <i>Molecular Systems Design and Engineering</i> , 2016 , 1, 391-401	4.6	3

11	Kinetics analysis of the electro-catalyzed degradation of high potential LiNi _{0.5} Mn _{1.5} O ₄ active materials. <i>Journal of Power Sources</i> , 2020 , 469, 228337	8.9	2
10	Magic-angle-spinning-induced local ordering in polymer electrolytes and its effects on solid-state diffusion and relaxation NMR measurements. <i>Magnetic Resonance in Chemistry</i> , 2020 , 58, 1118-1129	2.1	2
9	Influence of the structure of mesoporous adsorbents on transport properties. <i>Microporous and Mesoporous Materials</i> , 2011 , 140, 97-102	5.3	2
8	Morphology and reactivity of aluminium nanocrystalline powders. <i>International Journal of Nanotechnology</i> , 2012 , 9, 618	1.5	2
7	Improved composite electrode and lithium battery performance From smart use of the polymers and their properties. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 835, K10.3.1		1
6	Operando X-ray absorption tomography for the characterization of lithium metal electrode morphology and heterogeneity in a liquid Li/S cell. <i>Journal of Power Sources</i> , 2022 , 520, 230854	8.9	1
5	Simultaneous Monitoring of Structural Changes and Phase Distribution of LiFePO ₄ Along the Cathode Thickness of Li Metal Polymer Battery. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 160517	3.9	1
4	New Interpretation of X-ray Photoelectron Spectroscopy of Imidazolium Ionic Liquid Electrolytes Based on Ionic Transport Analyses. <i>Journal of Physical Chemistry B</i> , 2020 , 124, 7625-7635	3.4	1
3	Tomography Imaging of Lithium Electrodeposits Using Neutron, Synchrotron X-Ray, and Laboratory X-Ray Sources: A Comparison. <i>Frontiers in Energy Research</i> , 2021 , 9,	3.8	1
2	Flash sintering of cationic conductive ceramics: A way to build multilayer systems. <i>Journal of the American Ceramic Society</i> , 2021 , 104, 3845-3854	3.8	0
1	Study and tailoring of composite and nanocomposite materials for lithium battery electrode application. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 856, BB12.4.1		