

Mickael DollÃ©

List of Publications by Year in descending order

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116
papers

4,110
citations

186265

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118
times ranked

5437
citing authors

#	ARTICLE	IF	CITATIONS
1	Understanding the Light-Triggered Process of a Photo-Rechargeable Battery via Fluorescence Studies of Its Constitutional Photo- and Electroactive Components. Journal of Physical Chemistry C, 2022, 126, 2634-2641.	3.1	2
2	Effect of Lithium Sulfate on the Catalytic Activity of Pt for Hydrogen Oxidation Reaction. Journal of the Electrochemical Society, 2022, 169, 024515.	2.9	0
3	A comparative study on the influence of the polymeric host for the operation of all-solid-state batteries at different temperatures. Journal of Power Sources, 2022, 535, 231382.	7.8	2
4	Exploring Charged Defects and Dopability Limits of Solid Electrolytes, a Computational Study. ECS Meeting Abstracts, 2022, MA2022-01, 151-151.	0.0	0
5	Challenges in Solvent-Free Methods for Manufacturing Electrodes and Electrolytes for Lithium-Based Batteries. Polymers, 2021, 13, 323.	4.5	48
6	Thermal and Electrochemical Properties of Solid Polymer Electrolytes Prepared via Lithium Salt-Catalyzed Epoxide Ring Opening Polymerization. Applied Sciences (Switzerland), 2021, 11, 1561.	2.5	7
7	Pulse-assisted fluidization of nanoparticles: Case of lithium iron phosphate material. Canadian Journal of Chemical Engineering, 2021, 99, 1824-1835.	1.7	0
8	Use of Solid-State NMR Spectroscopy for the Characterization of Molecular Structure and Dynamics in Solid Polymer and Hybrid Electrolytes. Polymers, 2021, 13, 1207.	4.5	21
9	On the Importance of Li Metal Morphology on the Cycling of Lithium Metal Polymer Cells. Journal of the Electrochemical Society, 2021, 168, 040505.	2.9	12
10	Influence of Lithium Sulfate on the Kinetics of Hydrogen Oxidation in H ₂ SO ₄ . ECS Meeting Abstracts, 2021, MA2021-01, 1867-1867.	0.0	0
11	Assessing Electrochemical Stability Windows of Li _{1-x} Al _x M _{2-x} (PO ₄) ₃ (M=Ge,Ti) Nasicon Solid Electrolytes for Their Application in All Solid-State Lithium Batteries. ECS Meeting Abstracts, 2021, MA2021-01, 16-16.	0.0	0
12	A Photophysical Study of Electronic Transfer from Battery Active Materials to an Organic Dye: Towards Developing an Operating Photobattery. ECS Meeting Abstracts, 2021, MA2021-01, 41-41.	0.0	0
13	Assembling an All-Solid-State Ceramic Battery: Assessment of Chemical and Thermal Compatibility of Solid Ceramic Electrolytes and Active Material Using High Temperature X-Ray Diffraction. ECS Meeting Abstracts, 2021, MA2021-01, 325-325.	0.0	0
14	Greener Rechargeable Lithium-Ion Batteries Using Plasma Processes at Atmospheric Pressure. ECS Meeting Abstracts, 2021, MA2021-01, 853-853.	0.0	0
15	Assessing the Electrochemical Stability Window of NASICON-Type Solid Electrolytes. Frontiers in Energy Research, 2021, 9, .	2.3	29
16	A Critical Review for an Accurate Electrochemical Stability Window Measurement of Solid Polymer and Composite Electrolytes. Materials, 2021, 14, 3840.	2.9	39
17	Extrusion of Polymer Blend Electrolytes for Solid-State Lithium Batteries: A Study of Polar Functional Groups. ACS Applied Polymer Materials, 2021, 3, 6694-6704.	4.4	11
18	Cross-Linked Polyacrylonitrile-Based Elastomer Used as Gel Polymer Electrolyte in Li-Ion Battery. ACS Applied Energy Materials, 2020, 3, 1099-1110.	5.1	49

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19	Synthesis and characterization of LiFe _{1-x} Mn PO ₄ (x=0.25, 0.50, 0.75) lithium ion battery cathode synthesized via a melting process. <i>Journal of Energy Storage</i> , 2020, 27, 101116.	8.1	8
20	Effect of Li ⁺ Affinity on Ionic Conductivities in Melt-Blended Nitrile Rubber/Polyether. <i>ACS Applied Polymer Materials</i> , 2020, 2, 4943-4951.	4.4	18
21	The Impact of Absorbed Solvent on the Performance of Solid Polymer Electrolytes for Use in Solid-State Lithium Batteries. <i>IScience</i> , 2020, 23, 101597.	4.1	51
22	PEDOT assisted CNT self-supported electrodes for high energy and power density. <i>Electrochimica Acta</i> , 2020, 349, 136418.	5.2	6
23	Ultrasound assisted wet media milling synthesis of nanofiber-cage LiFePO ₄ /C. <i>Ultrasonics Sonochemistry</i> , 2020, 68, 105177.	8.2	6
24	Electrochemistry and transport properties of electrolytes modified with ferrocene redox-active ionic liquid additives. <i>Canadian Journal of Chemistry</i> , 2020, 98, 554-563.	1.1	4
25	Exploiting Materials to Their Full Potential, a Li-Ion Battery Electrode Formulation Optimization Study. <i>ACS Applied Energy Materials</i> , 2020, 3, 2935-2948.	5.1	23
26	Melt-processed electrode for lithium ion battery. <i>Journal of Power Sources</i> , 2020, 454, 227884.	7.8	17
27	Toward More Sustainable Rechargeable Aqueous Batteries Using Plasma-Treated Cellulose-Based Li-Ion Electrodes. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 4728-4733.	6.7	19
28	LiFePO ₄ spray drying scale-up and carbon-cage for improved cyclability. <i>Journal of Power Sources</i> , 2020, 462, 228103.	7.8	19
29	Water content in solid polymer electrolytes: the lost knowledge. <i>Chemical Communications</i> , 2020, 56, 10167-10170.	4.1	22
30	Study of the Lithium/Polymer Interface and Conductive Deposits on Lithium Metal Used for Lithium Metal Polymer Batteries.. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 403-403.	0.0	0
31	Fluorescence and Electrochemistry to Study the Electronic Transfer from an Organic Dye to Battery Active Materials: Towards Developing an Operating Photobattery. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 578-578.	0.0	0
32	Influence of Lithium Sulfate on the Kinetics of Hydrogen Oxidation in H ₂ SO ₄ . <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 2655-2655.	0.0	0
33	Gel Polymer Electrolyte Made of an Amorphous Polyacrylonitrile-Based Elastomer. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 253-253.	0.0	0
34	Characterization of Gel Polymer Electrolytes Based on Poly (Ionic Liquid)-Glyme Mixtures for Lithium Metal Batteries. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 251-251.	0.0	0
35	A Study on Processing Parameters Affecting Solid Polymer Electrolytes Performances. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 2925-2925.	0.0	0
36	Assembling an All-Solid-State Ceramic Battery: Assessment of Chemical and Thermal Compatibility of Solid Ceramic Electrolytes and Active Material Using High Temperature X-Ray Diffraction. <i>ECS Meeting Abstracts</i> , 2020, MA2020-01, 309-309.	0.0	0

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37	Hydrogen Depolarised Anode: Proof of Concept and Operational Overpotential Determination. ECS Meeting Abstracts, 2020, MA2020-01, 1260-1260.	0.0	0
38	Using Experiment and First-Principles to Assess Electrochemical Windows of Common Solid Electrolytes for Their Application in All Solid-State Lithium Batteries.. ECS Meeting Abstracts, 2020, MA2020-01, 557-557.	0.0	0
39	Designs of Experiments to Optimize Li-Ion Batteries. ECS Meeting Abstracts, 2020, MA2020-01, 254-254.	0.0	0
40	Quantification and Effect of Residual Water in Solid Polymer Electrolytes. ECS Meeting Abstracts, 2020, MA2020-02, 897-897.	0.0	0
41	Blend of Polymers As New Solid Electrolytes for Lithium-Ion Batteries. ECS Meeting Abstracts, 2020, MA2020-02, 896-896.	0.0	1
42	Polyacrylonitrile-based rubber (HNBR) as a new potential elastomeric binder for lithium-ion battery electrodes. Journal of Power Sources, 2019, 440, 227111.	7.8	20
43	Experimental and thermodynamic study of Li ₂ O and Li ₂ O ₂ systems. Canadian Journal of Chemical Engineering, 2019, 97, 2234-2241.	1.7	4
44	Fe ³⁺ reduction during melt synthesis of LiFePO ₄ . Canadian Journal of Chemical Engineering, 2019, 97, 2196-2210.	1.7	8
45	Visualization of the secondary phase in LiFePO ₄ ingots with advanced mapping techniques. Canadian Journal of Chemical Engineering, 2019, 97, 2218-2223.	1.7	2
46	Application of a Commercially-Available Fluorine-Free Thermoplastic Elastomer as a Binder for High-Power Li-Ion Battery Electrodes. Journal of the Electrochemical Society, 2019, 166, A1140-A1146.	2.9	5
47	Melt synthesis of LiFePO ₄ over a metallic bath. Canadian Journal of Chemical Engineering, 2019, 97, 2287-2298.	1.7	5
48	All-solid-state cells with Li ₄ Ti ₅ O ₁₂ /carbon nanotube composite electrodes prepared by infiltration with argyrodite sulfide-based solid electrolytes via liquid-phase processing. Journal of Power Sources, 2019, 417, 125-131.	7.8	27
49	Piloting melt synthesis and manufacturing processes to produce LiFePO ₄ : preface. Canadian Journal of Chemical Engineering, 2019, 97, 2189-2195.	1.7	4
50	Designs of Experiments for Beginners – A Quick Start Guide for Application to Electrode Formulation. Batteries, 2019, 5, 72.	4.5	30
51	Chemical speciation and mapping of the Si in Si doped LFP ingot with synchrotron radiation technique. Canadian Journal of Chemical Engineering, 2019, 97, 2211-2217.	1.7	4
52	Influence of the Formulation on the Microstructure and Thus Performance of Li-Ion Batteries. ECS Meeting Abstracts, 2019, , .	0.0	0
53	A Solvent-Free Approach to Lithium-Ion Battery Electrodes Using Melt-Processable Elastomeric Binders. ECS Meeting Abstracts, 2019, , .	0.0	0
54	(Invited) Dry Process for the Preparation of Porous Composite Electrodes for Battery Application. ECS Meeting Abstracts, 2019, , .	0.0	0

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55	Melt-Processing of Electrodes for Lithium-Ion Batteries: A New Solvent-Free Approach. ECS Meeting Abstracts, 2019, , .	0.0	0
56	Melt-Process for the Preparation of Porous Composite Electrodes for Battery Application. ECS Meeting Abstracts, 2019, , .	0.0	0
57	An Artificial Lithium Protective Layer that Enables the Use of Acetonitrile-Based Electrolytes in Lithium Metal Batteries. Angewandte Chemie - International Edition, 2018, 57, 5072-5075.	13.8	97
58	An Artificial Lithium Protective Layer that Enables the Use of Acetonitrile-Based Electrolytes in Lithium Metal Batteries. Angewandte Chemie, 2018, 130, 5166-5169.	2.0	15
59	Crosslinker free thermally induced crosslinking of hydrogenated nitrile butadiene rubber. Journal of Polymer Science Part A, 2018, 56, 1825-1833.	2.3	15
60	On the Electrochemical Properties of New Materials in the Li ₂ O-Fe ₂ O ₃ -V ₂ O ₅ Ternary System. ECS Meeting Abstracts, 2018, , .	0.0	0
61	Eco-friendly process toward collector- and binder-free, high-energy density electrodes for lithium-ion batteries. Journal of Solid State Electrochemistry, 2017, 21, 1407-1416.	2.5	10
62	Effect of composite electrode thickness on the electrochemical performances of all-solid-state li-ion batteries. Journal of Electroceramics, 2017, 38, 189-196.	2.0	19
63	Solid Fluoride Electrolytes and Their Composite with Carbon: Issues and Challenges for Rechargeable Solid State Fluoride-Ion Batteries. Journal of Physical Chemistry C, 2017, 121, 24962-24970.	3.1	40
64	Synthesis, Structure, and Electrochemical Properties of LiFeV ₂ O ₇ . Chemistry of Materials, 2017, 29, 9292-9299.	6.7	3
65	Electroactive ionic liquids based on 2,5-ditert-butyl-1,4-dimethoxybenzene and triflimide anion as redox shuttle for Li ₄ Ti ₅ O ₁₂ /LiFePO ₄ lithium-ion batteries. Journal of Power Sources, 2017, 372, 212-220.	7.8	12
66	Special proceedings of the Symposium A: "Advances in energy storage systems: lithium batteries, supercapacitors and beyond", during ICMAT 2015, June 28-July 3, Singapore. Journal of Solid State Electrochemistry, 2016, 20, 1819-1820.	2.5	1
67	On the limitation of density functional theory (DFT) for the treatment of the anharmonicity in FCC metals. Solid State Communications, 2016, 247, 78-81.	1.9	2
68	Control of the LiFePO ₄ electrochemical properties using low-cost iron precursor in a melt process. Journal of Solid State Electrochemistry, 2016, 20, 3481-3490.	2.5	20
69	Important Variation in Vibrational Properties of LiFePO ₄ and FePO ₄ Induced by Magnetism. Scientific Reports, 2016, 6, 33033.	3.3	8
70	Electrochemical and Transport Properties of Ions in Mixtures of Electroactive Ionic Liquid and Propylene Carbonate with a Lithium Salt for Lithium-Ion Batteries. Journal of Physical Chemistry C, 2016, 120, 5315-5325.	3.1	19
71	Thermophysical properties of titanium and vanadium nitrides: Thermodynamically self-consistent approach coupled with density functional theory. Journal of Alloys and Compounds, 2016, 662, 240-251.	5.5	21
72	LiFePO ₄ synthesized via melt synthesis using low-cost iron precursors. Journal of Solid State Electrochemistry, 2016, 20, 1821-1829.	2.5	23

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73	High-sensitivity piezoelectric perovskites for magnetoelectric composites. <i>Science and Technology of Advanced Materials</i> , 2015, 16, 016001.	6.1	21
74	Elaboration of controlled size $\text{Li}_{1.5}\text{Al}_{0.5}\text{Ge}_{1.5}(\text{PO}_4)_3$ crystallites from glass-ceramics. <i>Solid State Ionics</i> , 2014, 266, 44-50.	2.7	43
75	The composite structure of mixed $\text{I}_{x,-}(\text{Ag}, \text{Cu})\text{V}_2\text{O}_5$ bronzes—Evidence for T dependant guest-species ordering and mobility. <i>Journal of Solid State Chemistry</i> , 2013, 199, 84-89.	2.9	2
76	Decoupling the effects of pressure and current in spark plasma sintering: Synthesis of $\text{Cu}_{0.9}\text{V}_2\text{O}_5$. <i>Solid State Ionics</i> , 2013, 236, 5-10.	2.7	8
77	Electrochemical performances of vitreous materials in the system $\text{Li}_2\text{O}-\text{V}_2\text{O}_5-\text{P}_2\text{O}_5$ as electrode for lithium batteries. <i>Solid State Ionics</i> , 2013, 237, 22-27.	2.7	23
78	Electrical properties of ferroelectric BiMnO_3 - PbTiO_3 under tailored synthesis and ceramic processing. <i>Phase Transitions</i> , 2013, 86, 681-694.	1.3	13
79	Nanostructured BiMnO_3 obtained at ambient pressure: analysis of its multiferroicity. <i>Journal of Materials Chemistry</i> , 2012, 22, 9928.	6.7	25
80	The Stone Age Revisited: Building a Monolithic Inorganic Lithium-Ion Battery. <i>Advanced Functional Materials</i> , 2012, 22, 2140-2147.	14.9	100
81	All-solid-state silver batteries assembled by Spark Plasma Sintering. <i>Solid State Ionics</i> , 2012, 207, 57-63.	2.7	13
82	Structural characterizations of $\text{As}-\text{Se}-\text{Te}$ glasses. <i>Journal of Alloys and Compounds</i> , 2011, 509, 831-836.	5.5	29
83	Rapidly synthesis of nanocrystalline MgIn_2O_4 spinel using combustion and solid state chemistry. <i>Solid State Sciences</i> , 2011, 13, 42-48.	3.2	3
84	Nanopowders of ferroic oxides for magnetoelectric composites. <i>Journal of Nanoparticle Research</i> , 2011, 13, 4189-4200.	1.9	11
85	A New Approach to Develop Safe All-Inorganic Monolithic Li-Ion Batteries. <i>Advanced Energy Materials</i> , 2011, 1, 179-183.	19.5	139
86	Synthesis by Spark Plasma Sintering: A new way to obtain electrode materials for lithium ion batteries. <i>Journal of Power Sources</i> , 2011, 196, 2274-2278.	7.8	54
87	A comparative study of ZnS powders sintering by Hot Uniaxial Pressing (HUP) and Spark Plasma Sintering (SPS). <i>Optical Materials</i> , 2011, 33, 706-712.	3.6	45
88	Reaction kinetics during synthesis of $\text{Cu}_x\text{V}_2\text{O}_5$ and $\text{Ag}_y\text{V}_2\text{O}_5$ by spark plasma sintering. <i>Solid State Ionics</i> , 2011, 182, 24-31.	2.7	6
89	Spark Plasma Sintering: An Easy Way to Make Infrared Transparent Glass-Ceramics. <i>Journal of the American Ceramic Society</i> , 2010, 93, 2495-2498.	3.8	25
90	Strain analysis by inversion of coherent Bragg X-ray diffraction intensity: the illumination problem. <i>Journal of Modern Optics</i> , 2010, 57, 816-825.	1.3	6

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91	Microstructure and mechanical properties of high niobium containing TiAl alloys elaborated by spark plasma sintering. <i>Intermetallics</i> , 2010, 18, 2312-2321.	3.9	60
92	Ionic diffusion mastering using crystal-chemistry parameters: δ -Cu _{1/2} Ag _{1/2} V ₂ O ₅ structure determination and comparison with refined δ -Ag _x V ₂ O ₅ and δ -Cu _x V ₂ O ₅ ones. <i>Journal of Solid State Chemistry</i> , 2009, 182, 1481-1491.	2.9	10
93	Reactivity between Cu _x V ₂ O ₅ and Ag _y V ₂ O ₅ bronzes studied by spark plasma sintering. <i>Solid State Ionics</i> , 2009, 180, 1569-1574.	2.7	1
94	Structural behaviour of nearly stoichiometric ZrC under ion irradiation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2008, 266, 2801-2805.	1.4	42
95	Defect thermodynamic and transport properties of nanocrystalline Gd-doped ceria. <i>Ionics</i> , 2008, 14, 33-36.	2.4	11
96	Structural evolution of zirconium carbide under ion irradiation. <i>Journal of Nuclear Materials</i> , 2008, 373, 123-129.	2.7	86
97	Li-Driven Copper Extrusion/Reinjection in Various Cu-based Oxides and Sulfides. <i>Israel Journal of Chemistry</i> , 2008, 48, 235-249.	2.3	7
98	Enhanced lithium storage and chemical diffusion in metal-LiF nanocomposites: Experimental and theoretical results. <i>Physical Review B</i> , 2007, 76, .	3.2	32
99	Microstructural Characterization of the Radiation Effects in ZrC, a Potential Material for Next Generation Nuclear Plants. <i>Materials Research Society Symposia Proceedings</i> , 2007, 1043, 1.	0.1	0
100	Synthesis of nanosized zirconium carbide by a sol-gel route. <i>Journal of the European Ceramic Society</i> , 2007, 27, 2061-2067.	5.7	105
101	Structural stability of ZnAl ₂ O ₄ spinel irradiated by low energy particles. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2006, 250, 119-122.	1.4	6
102	Dendrite short-circuit and fuse effect on Li/polymer/Li cells. <i>Electrochimica Acta</i> , 2006, 51, 5334-5340.	5.2	479
103	Influence of Microstructural Parameters on the Sintering of Transition Metal Carbides. <i>Advances in Science and Technology</i> , 2006, 45, 629-632.	0.2	1
104	Lithium insertion chemistry of phosphate phases with the lipscombite structure. <i>Journal of Power Sources</i> , 2005, 144, 208-213.	7.8	20
105	Layered Manganese Oxide Intergrowth Electrodes for Rechargeable Lithium Batteries. 1. Substitution with Co or Ni. <i>Chemistry of Materials</i> , 2005, 17, 1036-1043.	6.7	31
106	Layered Manganese Oxide Intergrowth Electrodes for Rechargeable Lithium Batteries. 2. Substitution with Al. <i>Chemistry of Materials</i> , 2005, 17, 1044-1054.	6.7	36
107	Improved Li-Battery Electrolytes by Heterogeneous Doping of Nonaqueous Li-Salt Solutions. <i>Electrochemical and Solid-State Letters</i> , 2004, 7, A432.	2.2	34
108	Investigation of layered intergrowth Li _x MyMn _{1-y} O _{2+z} (M=Ni, Co, Al) compounds as positive electrodes for Li-ion batteries. <i>Solid State Ionics</i> , 2004, 175, 225-228.	2.7	12

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109	A Reversible Lithium Intercalation Process in an ReO_3 -Type Structure $\text{PNb}_9\text{O}_{25}$. Journal of the Electrochemical Society, 2002, 149, A391.	2.9	52
110	Live Scanning Electron Microscope Observations of Dendritic Growth in Lithium/Polymer Cells. Electrochemical and Solid-State Letters, 2002, 5, A286.	2.2	226
111	Metal Oxides as Negative Electrode Materials in Li-Ion Cells. Electrochemical and Solid-State Letters, 2002, 5, A115.	2.2	123
112	On the Origin of the Extra Electrochemical Capacity Displayed by MO/Li Cells at Low Potential. Journal of the Electrochemical Society, 2002, 149, A627.	2.9	1,152
113	Development of Reliable Three-Electrode Impedance Measurements in Plastic Li-Ion Batteries. Journal of the Electrochemical Society, 2001, 148, A851.	2.9	142
114	Impedance study of the $\text{Li}^{\hat{A}}/\text{electrolyte}$ interface upon cycling. Solid State Ionics, 2000, 135, 213-221.	2.7	40
115	Hydrogen Depolarized Anodes with Liquid Anolyte: Proof of Concept. Electrocatalysis, 0, , 1.	3.0	1
116	Recent Developments in Polymeric Composites for Solid-State Batteries. ACS Symposium Series, 0, , 167-200.	0.5	1