Alexandre Ponrouch

List of Publications by Year
in descending order

64 papers	6,491 citations	109321 35 h-index	128289 60 g-index
65 all docs	65 docs citations	65 times ranked	6543 citing authors

#	Article	IF	Citations
1	First 18650-format Na-ion cells aging investigation: A degradation mechanism study. Journal of Power Sources, 2022, 529, 231253.	7.8	9
2	Interfaces and Interphases in Ca and Mg Batteries. Advanced Materials Interfaces, 2022, 9, .	3.7	22
3	A boron-based electrolyte additive for calcium electrodeposition. Electrochemistry Communications, 2021, 124, 106936.	4.7	14
4	Operando Synchrotron X-ray Diffraction Studies on TiS₂: The Effect of Propylene Carbonate on Reduction Mechanism. Journal of the Electrochemical Society, 2021, 168, 030514.	2.9	10
5	On the Parameters Affecting Calcium Plating and Stripping from Organic Electrolytes â€“ Cases of Electrolyte Optimization. ECS Meeting Abstracts, 2021, MA2021-01, 419-419.	0.0	0
6	Solid Electrolyte Interphase for Ca Metal Batteries. ECS Meeting Abstracts, 2021, MA2021-01, 306-306.	0.0	0
7	2021 roadmap for sodium-ion batteries. JPhys Energy, 2021, 3, 031503.	5.3	125
8	Achievements, Challenges, and Prospects of Calcium Batteries. Chemical Reviews, 2020, 120, 6331-6357.	47.7	219
9	Towards standard electrolytes for sodium-ion batteries: physical properties, ion solvation and ion-pairing in alkyl carbonate solvents. Physical Chemistry Chemical Physics, 2020, 22, 22768-22777.	2.8	30
10	Towards dry and contaminant free Ca(BF4)2-based electrolytes for Ca plating. Journal of Power Sources Advances, 2020, 6, 100032.	5.1	7
11	Multivalent Mg²⁺-, Zn²⁺-, and Ca²⁺-Ion Intercalation Chemistry in a Disordered Layered Structure. ACS Applied Energy Materials, 2020, 3, 9143-9150.	5.1	8
12	Understanding the nature of the passivation layer enabling reversible calcium plating. Energy and Environmental Science, 2020, 13, 3423-3431.	30.8	60
13	Batteries and Supercapacitorsâ€”Fundamentals, Materials and Devices (Eâ€MRS Spring Meeting 2019): Foreword. Batteries and Supercaps, 2020, 3, 474-475.	4.7	0
14	Ionic Liquid-Based Electrolytes for Calcium-Based Energy Storage Systems. Journal of the Electrochemical Society, 2020, 167, 100544.	2.9	14
15	SEI Composition on Hard Carbon in Na-Ion Batteries After Long Cycling: Influence of Salts (NaPF₆, NaTFSI) and Additives (FEC, DMCF). Journal of the Electrochemical Society, 2020, 167, 070526.	2.9	125
16	Steps Towards the Use of TiS₂ Electrodes in Ca Batteries. Journal of the Electrochemical Society, 2020, 167, 070532.	2.9	18
17	Post-Li batteries: promises and challenges. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180297.	3.4	65
18	Methods and Protocols for Reliable Electrochemical Testing in Post-Li Batteries (Na, K, Mg, and Ca). Chemistry of Materials, 2019, 31, 8613-8628.	6.7	92

#	Article	IF	Citations
19	Multivalent rechargeable batteries. Energy Storage Materials, 2019, 20, 253-262.	18.0	275
20	Multivalent Batteriesâ€"Prospects for High Energy Density: Ca Batteries. Frontiers in Chemistry, 2019, 7, 79.	3.6	62
21	Cation Solvation and Physicochemical Properties of Ca Battery Electrolytes. Journal of Physical Chemistry C, 2019, 123, 29524-29532.	3.1	57
22	On the road toward calcium-based batteries. Current Opinion in Electrochemistry, 2018, 9, 1-7.	4.8	123
23	Electrochemical Intercalation of Calcium and Magnesium in TiS₂: Fundamental Studies Related to Multivalent Battery Applications. Chemistry of Materials, 2018, 30, 847-856.	6.7	105
24	Optimization of Large Scale Produced Hard Carbon Performance in Na-Ion Batteries: Effect of Precursor, Temperature and Processing Conditions. Journal of the Electrochemical Society, 2018, 165, A4058-A4066.	2.9	37
25	Diglyme Based Electrolytes for Sodium-Ion Batteries. ACS Applied Energy Materials, 2018, 1, 2671-2680.	5.1	115
26	Interphasing Multivalent Batteries. Joule, 2018, 2, 1028-1030.	24.0	8
27	On the strange case of divalent ions intercalation in V2O5. Journal of Power Sources, 2018, 407, 162-172.	7.8	66
28	Electrochemical calcium extraction from 1D-Ca₃Co₂O₆. Dalton Transactions, 2018, 47, 11298-11302.	3.3	30
29	Battery Systems Based on Multivalent Metals and Metal Ions. Series on Chemistry, Energy and the Environment, 2018, , 237-318.	0.3	5
30	On the Reliability of Half-Cell Tests for Monovalent (Li⁺, Na⁺) and Divalent (Mg²⁺, Ca²⁺) Cation Based Batteries. Journal of the Electrochemical Society, 2017, 164, A1384-A1392.	2.9	106
31	Assessing Si-based anodes for Ca-ion batteries: Electrochemical decalciation of CaSi2. Electrochemistry Communications, 2016, 66, 75-78.	4.7	55
32	Na Reactivity toward Carbonate-Based Electrolytes: The Effect of FEC as Additive. Journal of the Electrochemical Society, 2016, 163, A2333-A2339.	2.9	151
33	Towards safer sodium-ion batteries via organic solvent/ionic liquid based hybrid electrolytes. Journal of Power Sources, 2016, 324, 712-721.	7.8	76
34	Towards a calcium-based rechargeable battery. Nature Materials, 2016, 15, 169-172.	27.5	567
35	On the Comparative Stability of Li and Na Metal Anode Interfaces in Conventional Alkyl Carbonate Electrolytes. Journal of the Electrochemical Society, 2015, 162, A7060-A7066.	2.9	244
36	On the high and low temperature performances of Na-ion battery materials: Hard carbon as a case study. Electrochemistry Communications, 2015, 54, 51-54.	4.7	76

#	Article	IF	Citations
37	Taking steps forward in understanding the electrochemical behavior of Na₂Ti₃O₇. Journal of Materials Chemistry A, 2015, 3, 22280-22286.	10.3	51
38	Reviewâ€"Hard Carbon Negative Electrode Materials for Sodium-Ion Batteries. Journal of the Electrochemical Society, 2015, 162, A2476-A2482.	2.9	508
39	Non-aqueous electrolytes for sodium-ion batteries. Journal of Materials Chemistry A, 2015, 3, 22-42.	10.3	562
40	On a New Room Temperature and Solvent Free Carbon Coating Process for Battery Electrode Materials: Application to Selected Compounds. ECS Transactions, 2014, 58, 27-32.	0.5	1
41	Electrochemical behavior of [{Mn(Bpy)}(VO3)2]â‰ˆ(H2O)1.24 and [{Mn(Bpy)0.5}(VO3)2]â‰ˆ(H2O)0.62 inorganicâ€"organic Brannerites in lithium and sodium cells. Journal of Solid State Chemistry, 2014, 212, 92-98.	2.9	29
42	Electroanalytical study of the viability of conversion reactions as energy storage mechanisms. RSC Advances, 2014, 4, 35988-35996.	3.6	26
43	High temperature electrochemical performance of hydrothermally prepared LiMn1â^ˆ'xMxPO4 (M = Fe,) Tj ETQq1 1 0.784314 rgBT /Ov	2.7	11
44	High capacity hard carbon anodes for sodium ion batteries in additive free electrolyte. Electrochemistry Communications, 2013, 27, 85-88.	4.7	433
45	A new room temperature and solvent free carbon coating procedure for battery electrode materials. Energy and Environmental Science, 2013, 6, 3363.	30.8	37
46	Towards high energy density sodium ion batteries through electrolyte optimization. Energy and Environmental Science, 2013, 6, 2361.	30.8	410
47	Microwaves as a synthetic route for preparing electrochemically active TiO₂ nanoparticles. Journal of Materials Research, 2013, 28, 340-347.	2.6	10
48	Rationalization of Intercalation Potential and Redox Mechanism for A₂Ti₃O₇ (A = Li, Na). Chemistry of Materials, 2013, 25, 4946-4956.	6.7	98
49	Ultra high capacitance values of Pt@RuO2 coreâ€"shell nanotubular electrodes for microsupercapacitor applications. Journal of Power Sources, 2013, 221, 228-231.	7.8	36
50	Facile synthesis of graphitic carbons decorated with SnO2 nanoparticles and their application as high capacity lithium-ion battery anodes. Journal of Applied Electrochemistry, 2012, 42, 901-908.	2.9	2
51	Optimisation of performance through electrode formulation in conversion materials for lithium ion batteries: Co3O4 as a case example. Journal of Power Sources, 2012, 212, 233-246.	7.8	53
52	In search of an optimized electrolyte for Na-ion batteries. Energy and Environmental Science, 2012, 5, 8572.	30.8	736
53	High surface area nanocrystalline hausmannite synthesized by a solvent-free route. Materials Research Bulletin, 2012, 47, 2369-2374.	5.2	4
54	Highly Porous and Preferentially Oriented {100} Platinum Nanowires and Thin Films. Advanced Functional Materials, 2012, 22, 4172-4181.	14.9	51

#	Article	IF	Citations
55	On the origin of the extra capacity at low potential in materials for Li batteries reacting through conversion reaction. Electrochimica Acta, 2012, 61, 13-18.	5.2	214
56	Synthesis and characterization of PtCo nanowires for the electro-oxidation of methanol. Journal of Power Sources, 2012, 206, 20-28.	7.8	35
57	PtCo 1D Nanostructures for Electrocatalytic Oxidation of Methanol. ECS Meeting Abstracts, 2011, , .	0.0	0
58	On the impact of the slurry mixing procedure in the electrochemical performance of composite electrodes for Li-ion batteries: A case study for mesocarbon microbeads (MCMB) graphite and Co_3O_4. Journal of Power Sources, 2011, 196, 9682-9688.	7.8	59
59	Hydrazine oxidation at preferentially oriented Pt (100) nanowires array electrodes. Materials Research Society Symposia Proceedings, 2011, 1311, 10601.	0.1	1
60	Synthesis and Characterization of Well Aligned Ru Nanowires and Nanotubes. ECS Transactions, 2010, 25, 3-11.	0.5	20
61	Electrodeposition of Arrays of Ru, Pt, and PtRu Alloy 1D Metallic Nanostructures. Journal of the Electrochemical Society, 2010, 157, K59.	2.9	30
62	Effect of the nanostructure on the CO poisoning rate of platinum. Electrochemistry Communications, 2009, 11, 834-837.	4.7	22
63	Enhanced stability and activity of PtRu nanotubes for methanol electrooxidation. Electrochemistry Communications, 2009, 11, 1449-1452.	4.7	30
64	Synthesis and characterization of preferentially oriented (100) Pt nanowires. Electrochemistry Communications, 2009, 11, 1924-1927.	4.7	45