# Alexandre Ponrouch

List of Publications by Year
in descending order

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

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | In search of an optimized electrolyte for Na-ion batteries. Energy and Environmental Science, 2012, 5, 8572. | 30.8 | 736 |
| 2 | Towards a calcium-based rechargeable battery. Nature Materials, 2016, 15, 169-172. | 27.5 | 567 |
| 3 | Non-aqueous electrolytes for sodium-ion batteries. Journal of Materials Chemistry A, 2015, 3, 22-42. | 10.3 | 562 |
| 4 | Reviewâ€"Hard Carbon Negative Electrode Materials for Sodium-Ion Batteries. Journal of the Electrochemical Society, 2015, 162, A2476-A2482. | 2.9 | 508 |
| 5 | High capacity hard carbon anodes for sodium ion batteries in additive free electrolyte. Electrochemistry Communications, 2013, 27, 85-88. | 4.7 | 433 |
| 6 | Towards high energy density sodium ion batteries through electrolyte optimization. Energy and Environmental Science, 2013, 6, 2361. | 30.8 | 410 |
| 7 | Multivalent rechargeable batteries. Energy Storage Materials, 2019, 20, 253-262. | 18.0 | 275 |
| 8 | 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 |
| 9 | Achievements, Challenges, and Prospects of Calcium Batteries. Chemical Reviews, 2020, 120, 6331-6357. | 47.7 | 219 |
| 10 | 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 |
| 11 | Na Reactivity toward Carbonate-Based Electrolytes: The Effect of FEC as Additive. Journal of the Electrochemical Society, 2016, 163, A2333-A2339. | 2.9 | 151 |
| 12 | SEI Composition on Hard Carbon in Na-Ion Batteries After Long Cycling: Influence of Salts (NaPF<sub>6</sub>, NaTFSI) and Additives (FEC, DMCF). Journal of the Electrochemical Society, 2020, 167, 070526. | 2.9 | 125 |
| 13 | 2021 roadmap for sodium-ion batteries. JPhys Energy, 2021, 3, 031503. | 5.3 | 125 |
| 14 | On the road toward calcium-based batteries. Current Opinion in Electrochemistry, 2018, 9, 1-7. | 4.8 | 123 |
| 15 | Diglyme Based Electrolytes for Sodium-Ion Batteries. ACS Applied Energy Materials, 2018, 1, 2671-2680. | 5.1 | 115 |
| 16 | On the Reliability of Half-Cell Tests for Monovalent (Li<sup>+</sup>, Na<sup>+</sup>) and Divalent (Mg<sup>2+</sup>, Ca<sup>2+</sup>) Cation Based Batteries. Journal of the Electrochemical Society, 2017, 164, A1384-A1392. | 2.9 | 106 |
| 17 | Electrochemical Intercalation of Calcium and Magnesium in TiS<sub>2</sub>: Fundamental Studies Related to Multivalent Battery Applications. Chemistry of Materials, 2018, 30, 847-856. | 6.7 | 105 |
| 18 | Rationalization of Intercalation Potential and Redox Mechanism for A<sub>2</sub>Ti<sub>3</sub>O<sub>7</sub> (A = Li, Na). Chemistry of Materials, 2013, 25, 4946-4956. | 6.7 | 98 |

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|---|---|---|---|
| 19 | 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 |
| 20 | 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 |
| 21 | Towards safer sodium-ion batteries via organic solvent/ionic liquid based hybrid electrolytes. Journal of Power Sources, 2016, 324, 712-721. | 7.8 | 76 |
| 22 | On the strange case of divalent ions intercalation in V2O5. Journal of Power Sources, 2018, 407, 162-172. | 7.8 | 66 |
| 23 | Post-Li batteries: promises and challenges. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180297. | 3.4 | 65 |
| 24 | Multivalent Batteriesâ€"Prospects for High Energy Density: Ca Batteries. Frontiers in Chemistry, 2019, 7, 79. | 3.6 | 62 |
| 25 | Understanding the nature of the passivation layer enabling reversible calcium plating. Energy and Environmental Science, 2020, 13, 3423-3431. | 30.8 | 60 |
| 26 | 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 Co3O4. Journal of Power Sources, 2011, 196, 9682-9688. | 7.8 | 59 |
| 27 | Cation Solvation and Physicochemical Properties of Ca Battery Electrolytes. Journal of Physical Chemistry C, 2019, 123, 29524-29532. | 3.1 | 57 |
| 28 | Assessing Si-based anodes for Ca-ion batteries: Electrochemical decalciation of CaSi2. Electrochemistry Communications, 2016, 66, 75-78. | 4.7 | 55 |
| 29 | 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 |
| 30 | Highly Porous and Preferentially Oriented {100} Platinum Nanowires and Thin Films. Advanced Functional Materials, 2012, 22, 4172-4181. | 14.9 | 51 |
| 31 | Taking steps forward in understanding the electrochemical behavior of Na<sub>2</sub>Ti<sub>3</sub>O<sub>7</sub>. Journal of Materials Chemistry A, 2015, 3, 22280-22286. | 10.3 | 51 |
| 32 | Synthesis and characterization of preferentially oriented (100) Pt nanowires. Electrochemistry Communications, 2009, 11, 1924-1927. | 4.7 | 45 |
| 33 | A new room temperature and solvent free carbon coating procedure for battery electrode materials. Energy and Environmental Science, 2013, 6, 3363. | 30.8 | 37 |
| 34 | 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 |
| 35 | 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 |
| 36 | Synthesis and characterization of PtCo nanowires for the electro-oxidation of methanol. Journal of Power Sources, 2012, 206, 20-28. | 7.8 | 35 |

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|---|---|---|---|
| 37 | Enhanced stability and activity of PtRu nanotubes for methanol electrooxidation. Electrochemistry Communications, 2009, 11, 1449-1452. | 4.7 | 30 |
| 38 | Electrodeposition of Arrays of Ru, Pt, and PtRu Alloy 1D Metallic Nanostructures. Journal of the Electrochemical Society, 2010, 157, K59. | 2.9 | 30 |
| 39 | Electrochemical calcium extraction from 1D-Ca<sub>3</sub>Co<sub>2</sub>O<sub>6</sub>. Dalton Transactions, 2018, 47, 11298-11302. | 3.3 | 30 |
| 40 | 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 |
| 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 | Effect of the nanostructure on the CO poisoning rate of platinum. Electrochemistry Communications, 2009, 11, 834-837. | 4.7 | 22 |
| 44 | Interfaces and Interphases in Ca and Mg Batteries. Advanced Materials Interfaces, 2022, 9, . | 3.7 | 22 |
| 45 | Synthesis and Characterization of Well Aligned Ru Nanowires and Nanotubes. ECS Transactions, 2010, 25, 3-11. | 0.5 | 20 |
| 46 | Steps Towards the Use of TiS<sub>2</sub> Electrodes in Ca Batteries. Journal of the Electrochemical Society, 2020, 167, 070532. | 2.9 | 18 |
| 47 | Ionic Liquid-Based Electrolytes for Calcium-Based Energy Storage Systems. Journal of the Electrochemical Society, 2020, 167, 100544. | 2.9 | 14 |
| 48 | A boron-based electrolyte additive for calcium electrodeposition. Electrochemistry Communications, 2021, 124, 106936. | 4.7 | 14 |
| 49 | High temperature electrochemical performance of hydrothermally prepared LiMn1â^'xMxPO4 (M = Fe,) Tj ETQq1 1 0.784314 rgBT /Ov | 2.7 | 1F |
| 50 | Microwaves as a synthetic route for preparing electrochemically active TiO<sub>2</sub> nanoparticles. Journal of Materials Research, 2013, 28, 340-347. | 2.6 | 10 |
| 51 | Operando Synchrotron X-ray Diffraction Studies on TiS<sub>2</sub>: The Effect of Propylene Carbonate on Reduction Mechanism. Journal of the Electrochemical Society, 2021, 168, 030514. | 2.9 | 10 |
| 52 | First 18650-format Na-ion cells aging investigation: A degradation mechanism study. Journal of Power Sources, 2022, 529, 231253. | 7.8 | 9 |
| 53 | Interphasing Multivalent Batteries. Joule, 2018, 2, 1028-1030. | 24.0 | 8 |
| 54 | Multivalent Mg<sup>2+</sup>-, Zn<sup>2+</sup>-, and Ca<sup>2+</sup>-Ion Intercalation Chemistry in a Disordered Layered Structure. ACS Applied Energy Materials, 2020, 3, 9143-9150. | 5.1 | 8 |

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|---|---|---|---|
| 55 | Towards dry and contaminant free Ca(BF4)2-based electrolytes for Ca plating. Journal of Power Sources Advances, 2020, 6, 100032. | 5.1 | 7 |
| 56 | Battery Systems Based on Multivalent Metals and Metal Ions. Series on Chemistry, Energy and the Environment, 2018, , 237-318. | 0.3 | 5 |
| 57 | High surface area nanocrystalline hausmannite synthesized by a solvent-free route. Materials Research Bulletin, 2012, 47, 2369-2374. | 5.2 | 4 |
| 58 | 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 |
| 59 | Hydrazine oxidation at preferentially oriented Pt (100) nanowires array electrodes. Materials Research Society Symposia Proceedings, 2011, 1311, 10601. | 0.1 | 1 |
| 60 | 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 |
| 61 | PtCo 1D Nanostructures for Electrocatalytic Oxidation of Methanol. ECS Meeting Abstracts, 2011, , . | 0.0 | 0 |
| 62 | Batteries and Supercapacitorsâ€"Fundamentals, Materials and Devices (Eâ€MRS Spring Meeting 2019): Foreword. Batteries and Supercaps, 2020, 3, 474-475. | 4.7 | 0 |
| 63 | 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 |
| 64 | Solid Electrolyte Interphase for Ca Metal Batteries. ECS Meeting Abstracts, 2021, MA2021-01, 306-306. | 0.0 | 0 |