Damien Saurel

List of Publications by Year
in descending order

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49 papers	3,232 citations	172386 29 h-index	206029 48 g-index
50 all docs	50 docs citations	50 times ranked	4170 citing authors

#	Article	IF	Citations
1	Hard carbons for sodium-ion batteries: Structure, analysis, sustainability, and electrochemistry. Materials Today, 2019, 23, 87-104.	8.3	537
2	From Charge Storage Mechanism to Performance: A Roadmap toward High Specific Energy Sodiumâ€ion Batteries through Carbon Anode Optimization. Advanced Energy Materials, 2018, 8, 1703268.	10.2	396
3	Naâ€ion Batteries for Large Scale Applications: A Review on Anode Materials and Solid Electrolyte Interphase Formation. Advanced Energy Materials, 2017, 7, 1700463.	10.2	261
4	Crystal chemistry of Na insertion/deinsertion in FePO4â€“NaFePO4. Journal of Materials Chemistry, 2012, 22, 17421.	6.7	189
5	Challenges of today for Na-based batteries of the future: From materials to cell metrics. Journal of Power Sources, 2021, 482, 228872.	4.0	169
6	Electrochemical characterization of NaFePO4 as positive electrode in aqueous sodium-ion batteries. Journal of Power Sources, 2015, 291, 40-45.	4.0	107
7	Origins of Bistability and Na Ion Mobility Difference in P2â€•and O3â€Na_{2/3}Fe_{2/3}Mn_{1/3}O₂ Cathode Polymorphs. Advanced Energy Materials, 2017, 7, 1601477.	10.2	101
8	Er³⁺-doped Nanoparticles for Optical Detection of Magnetic Field. Nano Letters, 2009, 9, 721-724.	4.5	96
9	The mechanism of NaFePO₄ (de)sodiation determined by in situ X-ray diffraction. Physical Chemistry Chemical Physics, 2014, 16, 8837-8842.	1.3	96
10	A SAXS outlook on disordered carbonaceous materials for electrochemical energy storage. Energy Storage Materials, 2019, 21, 162-173.	9.5	95
11	GMR sensors and magnetic nanoparticles for immuno-chromatographic assays. Journal of Magnetism and Magnetic Materials, 2012, 324, 3495-3498.	1.0	75
12	The influence of single-walled carbon nanotube functionalization on the electronic properties of their polyaniline composites. Carbon, 2008, 46, 1909-1917.	5.4	64
13	Considerations about the influence of the structural and electrochemical properties of carbonaceous materials on the behavior of lithium-ion capacitors. Journal of Power Sources, 2014, 266, 250-258.	4.0	64
14	On the dynamics of transition metal migration and its impact on the performance of layered oxides for sodium-ion batteries: NaFeO₂as a case study. Journal of Materials Chemistry A, 2018, 6, 15132-15146.	5.2	64
15	Synthesis and Electrochemistry Study of P2- and O3-phase Na2/3Fe1/2Mn1/2O2. Electrochimica Acta, 2015, 182, 1029-1036.	2.6	55
16	Tailoring of ferromagnetic Pr[sub 0.85]Ca[sub 0.15]MnO[sub 3]âˆ•ferroelectric Ba[sub 0.6]Sr[sub 0.4]TiO[sub 3] superlattices for multiferroic properties. Applied Physics Letters, 2004, 85, 4424.	1.5	52
17	Nonlinear effects and Joule heating in I-V curves in manganites. Journal of Applied Physics, 2005, 98, 023911.	1.1	51
18	Impact of the Acid Treatment on Lignocellulosic Biomass Hard Carbon for Sodiumâ€ion Battery Anodes. ChemSusChem, 2018, 11, 3276-3285.	3.6	49

#	Article	IF	Citations
19	Intragrain defects in polycrystalline silicon layers grown by aluminum-induced crystallization and epitaxy for thin-film solar cells. Journal of Applied Physics, 2009, 105, 114507.	1.1	47
20	Quantitative biomolecular sensing station based on magnetoresistive patterned arrays. Biosensors and Bioelectronics, 2012, 35, 206-212.	5.3	46
21	Neutron scattering evidence for magnetic-field-driven abrupt magnetic and structural transitions in a phase-separated manganite. Physical Review B, 2003, 68, .	1.1	43
22	Investigation of sodium insertionâ€“extraction in olivine Na_xFePO₄ (0 â‰¤ x â‰¤ 1) using first-principles calculations. Physical Chemistry Chemical Physics, 2016, 18, 13045-13051.	1.3	40
23	Small quaternary alkyl phosphonium bis(fluorosulfonyl)imide ionic liquid electrolytes for sodium-ion batteries with P2- and O3-Na2/3[Fe2/3Mn1/3]O2 cathode material. Journal of Power Sources, 2017, 349, 45-51.	4.0	40
24	Importance of Composite Electrolyte Processing to Improve the Kinetics and Energy Density of Li Metal Solid-State Batteries. ACS Applied Energy Materials, 2020, 3, 8344-8355.	2.5	37
25	Water as an Effective Additive for Highâ€Energyâ€Density Na Metal Batteries? Studies in a Superconcentrated Ionic Liquid Electrolyte. ChemSusChem, 2019, 12, 1700-1711.	3.6	36
26	Temperature effect on the synthesis of lignin-derived carbons for electrochemical energy storage applications. Journal of Power Sources, 2018, 397, 296-306.	4.0	34
27	Field dependence of the electronic phase separation inPr0.67Ca0.33MnO3by small-angle magnetic neutron scattering. Physical Review B, 2003, 68, .	1.1	31
28	Magnetic field dependence of the magnetic phase separation inPr1â^'xCaxMnO3manganites studied by small-angle neutron scattering. Physical Review B, 2006, 73, .	1.1	31
29	The effect of cation chemistry on physicochemical behaviour of superconcentrated NaFSI based ionic liquid electrolytes and the implications for Na battery performance. Electrochimica Acta, 2018, 268, 94-100.	2.6	31
30	Stable cycling of NaFePO4 cathodes in high salt concentration ionic liquid electrolytes. Journal of Power Sources, 2018, 406, 70-80.	4.0	28
31	Rate dependence of the reaction mechanism in olivine NaFePO₄ Na-ion cathode material. International Journal of Energy Research, 2018, 42, 3258-3265.	2.2	28
32	Magnetic states and spin-glass properties in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">Bi</mml:mi><mml:mn>0.67</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">Ca</mml:mi><mml:mn>0.33</mml:mn></mml:msub><mml:mi mathvariant="normal">Mn</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>: Macr	1.1	24
33	Extraordinary magnetic field induced suppression of luminescence in Er3+-doped nano-glass-ceramics. Journal of Applied Physics, 2009, 106, 053502.	1.1	24
34	Zeeman splitting and confinement effects in Er3+-doped nano-glass-ceramics in magnetic fields up to 50T. Applied Physics Letters, 2008, 92, 171101.	1.5	23
35	Assessing the Reactivity of Hard Carbon Anodes: Linking Material Properties with Electrochemical Response Upon Sodiumâ€and Lithiumâ€ion Storage. Batteries and Supercaps, 2021, 4, 960-977.	2.4	23
36	Local mechanical properties of graphene/polyethylene-based nanocomposites by depth-sensing indentation. European Polymer Journal, 2016, 74, 120-129.	2.6	22

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37	Boosting the performance of soft carbon negative electrode for high power Na-ion batteries and Li-ion capacitors through a rational strategy of structural and morphological manipulation. Energy Storage Materials, 2022, 46, 417-430.	9.5	18
38	Exploring the rate dependence of phase evolution in P2-type Na_{2/3}Mn_{0.8}Fe_{0.1}Ti_{0.1}O₂. Journal of Materials Chemistry A, 2019, 7, 12115-12125.	5.2	15
39	Evolution of the conducting phase topology at the percolation threshold in colossal magnetoresistance manganites: A magnetic small-angle neutron scattering study. Physical Review B, 2010, 82, .	1.1	14
40	Elucidating cycling rate-dependent electrochemical strains in sodium iron phosphate cathodes for Na-ion batteries. Journal of Power Sources, 2021, 507, 230297.	4.0	14
41	Small-angle neutron scattering study of the steplike magnetic transformation inPr0.70Ca0.30MnO3. Physical Review B, 2007, 75, .	1.1	13
42	Stress-induced metallic behavior under magnetic field in Pr1â^'xCaxMnO3 (x=0.5 and 0.4) thin films (invited). Journal of Applied Physics, 2001, 89, 6612-6617.	1.1	12
43	Effect of confinement on the Eu3+ emission band 5D0â†'7F0 in Eu3+-doped nano-glass-ceramics. Journal of Luminescence, 2009, 129, 1575-1577.	1.5	10
44	Structural and magnetic properties of frustrated GaxMn(3-x)O4(1.2Ââ‰ÂxÂâ‰ 1.6) spinels. Journal of Alloys and Compounds, 2018, 748, 528-536.	2.8	8
45	The triphylite NaFe1-yMnyPO4 solid solution (0 â‰ y â‰ 1): Kinetic strain accommodation in NaxFe0.8Mn0.2PO4. Electrochimica Acta, 2022, 425, 140650.	2.6	7
46	Exploring Vinyl Polymers as Soft Carbon Precursors for M-Ion (M = Na, Li) Batteries and Hybrid Capacitors. Energies, 2020, 13, 4189.	1.6	5
47	Small-angle neutron-scattering study of the microphase separation in the Pr0.66Ca0.33MnO3 manganite. Physica B: Condensed Matter, 2004, 350, 51-54.	1.3	2
48	Magnetic field induced percolation in Pr0.67Ca0.33MnO3 by small angle magnetic neutron scattering. Journal of Magnetism and Magnetic Materials, 2004, 272-276, E1383-E1384.	1.0	0
49	Thermoelectrics. , 2016, , 155-204.		0