

# 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	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. <i>Energy Storage Materials</i> , 2022, 46, 417-430.	9.5	18
2	The triphylite $\text{NaFe}_{1-y}\text{Mn}_y\text{PO}_4$ solid solution ( $0 \leq y \leq 1$ ): Kinetic strain accommodation in $\text{Na}_x\text{Fe}_{0.8}\text{Mn}_{0.2}\text{PO}_4$ . <i>Electrochimica Acta</i> , 2022, 425, 140650.	2.6	7
3	Challenges of today for Na-based batteries of the future: From materials to cell metrics. <i>Journal of Power Sources</i> , 2021, 482, 228872.	4.0	169
4	Assessing the Reactivity of Hard Carbon Anodes: Linking Material Properties with Electrochemical Response Upon Sodium and Lithium Storage. <i>Batteries and Supercaps</i> , 2021, 4, 960-977.	2.4	23
5	Elucidating cycling rate-dependent electrochemical strains in sodium iron phosphate cathodes for Na-ion batteries. <i>Journal of Power Sources</i> , 2021, 507, 230297.	4.0	14
6	Importance of Composite Electrolyte Processing to Improve the Kinetics and Energy Density of Li Metal Solid-State Batteries. <i>ACS Applied Energy Materials</i> , 2020, 3, 8344-8355.	2.5	37
7	Exploring Vinyl Polymers as Soft Carbon Precursors for M-Ion (M = Na, Li) Batteries and Hybrid Capacitors. <i>Energies</i> , 2020, 13, 4189.	1.6	5
8	A SAXS outlook on disordered carbonaceous materials for electrochemical energy storage. <i>Energy Storage Materials</i> , 2019, 21, 162-173.	9.5	95
9	Exploring the rate dependence of phase evolution in $\text{P}_2$ -type $\text{Na}_{2/3}\text{Mn}_{0.8}\text{Fe}_{0.1}\text{Ti}_{0.1}\text{O}_2$ . <i>Journal of Materials Chemistry A</i> , 2019, 7, 12115-12125.	5.2	15
10	Water as an Effective Additive for High Energy Density Na Metal Batteries? Studies in a Superconcentrated Ionic Liquid Electrolyte. <i>ChemSusChem</i> , 2019, 12, 1700-1711.	3.6	36
11	Hard carbons for sodium-ion batteries: Structure, analysis, sustainability, and electrochemistry. <i>Materials Today</i> , 2019, 23, 87-104.	8.3	537
12	The effect of cation chemistry on physicochemical behaviour of superconcentrated NaFSI based ionic liquid electrolytes and the implications for Na battery performance. <i>Electrochimica Acta</i> , 2018, 268, 94-100.	2.6	31
13	Structural and magnetic properties of frustrated $\text{G}_x\text{Mn}_{(3-x)}\text{O}_4$ ( $1.2 \leq x \leq 1.6$ ) spinels. <i>Journal of Alloys and Compounds</i> , 2018, 748, 528-536.	2.8	8
14	From Charge Storage Mechanism to Performance: A Roadmap toward High Specific Energy Sodium Ion Batteries through Carbon Anode Optimization. <i>Advanced Energy Materials</i> , 2018, 8, 1703268.	10.2	396
15	Stable cycling of $\text{NaFePO}_4$ cathodes in high salt concentration ionic liquid electrolytes. <i>Journal of Power Sources</i> , 2018, 406, 70-80.	4.0	28
16	Impact of the Acid Treatment on Lignocellulosic Biomass Hard Carbon for Sodium Ion Battery Anodes. <i>ChemSusChem</i> , 2018, 11, 3276-3285.	3.6	49
17	On the dynamics of transition metal migration and its impact on the performance of layered oxides for sodium-ion batteries: $\text{NaFeO}_2$ as a case study. <i>Journal of Materials Chemistry A</i> , 2018, 6, 15132-15146.	5.2	64
18	Temperature effect on the synthesis of lignin-derived carbons for electrochemical energy storage applications. <i>Journal of Power Sources</i> , 2018, 397, 296-306.	4.0	34

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19	Rate dependence of the reaction mechanism in olivine $\text{NaFePO}_4$ Na-ion cathode material. International Journal of Energy Research, 2018, 42, 3258-3265.	2.2	28
20	Small quaternary alkyl phosphonium bis(fluorosulfonyl)imide ionic liquid electrolytes for sodium-ion batteries with P2- and O3- $\text{Na}_{2/3}[\text{Fe}_{2/3}\text{Mn}_{1/3}]\text{O}_2$ cathode material. Journal of Power Sources, 2017, 349, 45-51.	4.0	40
21	Na-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
22	Origins of Bistability and Na Ion Mobility Difference in P2- and O3- $\text{Na}_{2/3}\text{Fe}_{2/3}\text{Mn}_{1/3}\text{O}_2$ Cathode Polymorphs. Advanced Energy Materials, 2017, 7, 1601477.	10.2	101
23	Investigation of sodium insertion/extraction in olivine $\text{Na}_x\text{FePO}_4$ ( $0 \leq x \leq 1$ ) using first-principles calculations. Physical Chemistry Chemical Physics, 2016, 18, 13045-13051.	1.3	40
24	Thermoelectrics. , 2016, , 155-204.		0
25	Local mechanical properties of graphene/polyethylene-based nanocomposites by depth-sensing indentation. European Polymer Journal, 2016, 74, 120-129.	2.6	22
26	Electrochemical characterization of $\text{NaFePO}_4$ as positive electrode in aqueous sodium-ion batteries. Journal of Power Sources, 2015, 291, 40-45.	4.0	107
27	Synthesis and Electrochemistry Study of P2- and O3-phase $\text{Na}_{2/3}\text{Fe}_{1/2}\text{Mn}_{1/2}\text{O}_2$ . Electrochimica Acta, 2015, 182, 1029-1036.	2.6	55
28	The mechanism of $\text{NaFePO}_4$ (de)sodiation determined by in situ X-ray diffraction. Physical Chemistry Chemical Physics, 2014, 16, 8837-8842.	1.3	96
29	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
30	GMR sensors and magnetic nanoparticles for immuno-chromatographic assays. Journal of Magnetism and Magnetic Materials, 2012, 324, 3495-3498.	1.0	75
31	Crystal chemistry of Na insertion/deinsertion in $\text{FePO}_4$ Na $\text{FePO}_4$ . Journal of Materials Chemistry, 2012, 22, 17421.	6.7	189
32	Quantitative biomolecular sensing station based on magnetoresistive patterned arrays. Biosensors and Bioelectronics, 2012, 35, 206-212.	5.3	46
33	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
34	Extraordinary magnetic field induced suppression of luminescence in $\text{Er}^{3+}$ -doped nano-glass-ceramics. Journal of Applied Physics, 2009, 106, 053502.	1.1	24
35	Effect of confinement on the $\text{Eu}^{3+}$ emission band $5D_0 \rightarrow 7F_0$ in $\text{Eu}^{3+}$ -doped nano-glass-ceramics. Journal of Luminescence, 2009, 129, 1575-1577.	1.5	10
36	$\text{Er}^{3+}$ -doped Nanoparticles for Optical Detection of Magnetic Field. Nano Letters, 2009, 9, 721-724.	4.5	96

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37	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
38	The influence of single-walled carbon nanotube functionalization on the electronic properties of their polyaniline composites. Carbon, 2008, 46, 1909-1917.	5.4	64
39	Zeeman splitting and confinement effects in Er <sup>3+</sup> -doped nano-glass-ceramics in magnetic fields up to 50T. Applied Physics Letters, 2008, 92, 171101	1.5	23
40	Magnetic states and spin-glass properties in $\text{Bi}_{0.67}\text{Ca}_{0.33}\text{MnO}_3$	1.1	24
41	Small-angle neutron scattering study of the steplike magnetic transformation in $\text{Pr}_{0.70}\text{Ca}_{0.30}\text{MnO}_3$ . Physical Review B, 2007, 75, .	1.1	13
42	Magnetic field dependence of the magnetic phase separation in $\text{Pr}_{1-x}\text{Ca}_x\text{MnO}_3$ manganites studied by small-angle neutron scattering. Physical Review B, 2006, 73, .	1.1	31
43	Nonlinear effects and Joule heating in I-V curves in manganites. Journal of Applied Physics, 2005, 98, 023911.	1.1	51
44	Small-angle neutron-scattering study of the microphase separation in the $\text{Pr}_{0.66}\text{Ca}_{0.33}\text{MnO}_3$ manganite. Physica B: Condensed Matter, 2004, 350, 51-54.	1.3	2
45	Magnetic field induced percolation in $\text{Pr}_{0.67}\text{Ca}_{0.33}\text{MnO}_3$ by small angle magnetic neutron scattering. Journal of Magnetism and Magnetic Materials, 2004, 272-276, E1383-E1384.	1.0	0
46	Tailoring of ferromagnetic $\text{Pr}_{0.85}\text{Ca}_{0.15}\text{MnO}_3$ •ferroelectric $\text{Ba}_{0.6}\text{Sr}_{0.4}\text{TiO}_3$ superlattices for multiferroic properties. Applied Physics Letters, 2004, 85, 4424.	1.5	52
47	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
48	Field dependence of the electronic phase separation in $\text{Pr}_{0.67}\text{Ca}_{0.33}\text{MnO}_3$ by small-angle magnetic neutron scattering. Physical Review B, 2003, 68, .	1.1	31
49	Stress-induced metallic behavior under magnetic field in $\text{Pr}_{1-x}\text{Ca}_x\text{MnO}_3$ ( $x=0.5$ and $0.4$ ) thin films (invited). Journal of Applied Physics, 2001, 89, 6612-6617.	1.1	12