

Philippe Moreau

List of Publications by Year in descending order

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117625

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133252

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80
docs citations

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times ranked

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#	ARTICLE	IF	CITATIONS
1	From the Direct Observation of a PAA-Based Binder Using STEM-EELS to the Ageing Mechanism of Silicon/Graphite Anode with High Areal Capacity Cycled in an FEC-Rich and EC-Free Electrolyte. <i>Advanced Energy Materials</i> , 2022, 12, 2103348.	19.5	11
2	Application of a Cryo-FIB-SEM-1/4Raman Instrument to Probe the Depth of Vitreous Ice in a Frozen Sample. <i>Analytical Chemistry</i> , 2022, 94, 8120-8125.	6.5	2
3	Thermomechanical Polymer Binder Reactivity with Positive Active Materials for Li Metal Polymer and Li-Ion Batteries: An XPS and XPS Imaging Study. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 18368-18376.	8.0	40
4	New airtight transfer box for SEM experiments: Application to lithium and sodium metals observation and analyses. <i>Micron</i> , 2018, 110, 10-17.	2.2	3
5	Peculiar Li-storage mechanism at graphene edges in turbostratic carbon black and their application in high energy Li-ion capacitor. <i>Journal of Power Sources</i> , 2018, 378, 628-635.	7.8	13
6	Dual Anion-Cation Reversible Insertion in a Bipyridinium-Diamide Triad as the Negative Electrode for Aqueous Batteries. <i>Advanced Energy Materials</i> , 2018, 8, 1701988.	19.5	41
7	A hybrid method using the widely-used WIEN2k and VASP codes to calculate the complete set of XAS/EELS edges in a hundred-atoms system. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 1320-1327.	2.8	6
8	Carbonate and Ionic Liquid Mixes as Electrolytes To Modify Interphases and Improve Cell Safety in Silicon-Based Li-Ion Batteries. <i>Chemistry of Materials</i> , 2017, 29, 8132-8146.	6.7	15
9	Fabrication and performance of electrochemically grafted thiophene silicon nanoparticle anodes for Li-ion batteries. <i>Journal of Power Sources</i> , 2016, 324, 97-105.	7.8	6
10	Nanoscale Chemical Evolution of Silicon Negative Electrodes Characterized by Low-Loss STEM-EELS. <i>Nano Letters</i> , 2016, 16, 7381-7388.	9.1	45
11	Multiprobe Study of the Solid Electrolyte Interphase on Silicon-Based Electrodes in Full-Cell Configuration. <i>Chemistry of Materials</i> , 2016, 28, 2557-2572.	6.7	116
12	Mechanism of Silicon Electrode Aging upon Cycling in Full Lithium-Ion Batteries. <i>ChemSusChem</i> , 2016, 9, 841-848.	6.8	67
13	Reversible anion intercalation in a layered aromatic amine: a high-voltage host structure for organic batteries. <i>Journal of Materials Chemistry A</i> , 2016, 4, 6131-6139.	10.3	97
14	Engineered Electronic Contacts for Composite Electrodes in Li Batteries Using Thiophene-Based Molecular Junctions. <i>Chemistry of Materials</i> , 2015, 27, 4057-4065.	6.7	11
15	NMR quantitative analysis of solid electrolyte interphase on aged Li-ion battery electrodes. <i>Electrochimica Acta</i> , 2015, 155, 391-395.	5.2	14
16	Nanoconfined nonequilibrium electrodeposition of metal-metal hydroxide one-dimensional nanostructures. <i>Electrochimica Acta</i> , 2015, 151, 347-354.	5.2	5
17	Quantitative use of electron energy-loss spectroscopy Mo-M _{2,3} edges for the study of molybdenum oxides. <i>Ultramicroscopy</i> , 2015, 149, 1-8.	1.9	60
18	Enhanced and tunable surface plasmons in two-dimensional Ti ₃ C ₂ stacks: Electronic structure versus boundary effects. <i>Physical Review B</i> , 2014, 89, .	3.2	122

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19	From Si wafers to cheap and efficient Si electrodes for Li-ion batteries. Journal of Power Sources, 2014, 256, 32-36.	7.8	34
20	Elucidation of the $\text{Na}_{2/3}\text{FePO}_4$ and $\text{Li}_{2/3}\text{FePO}_4$ Intermediate Superstructure Revealing a Pseudouniform Ordering in 2D. Journal of the American Chemical Society, 2014, 136, 9144-9157.	13.7	67
21	Redirected charge transport arising from diazonium grafting of carbon coated LiFePO_4 . Physical Chemistry Chemical Physics, 2014, 16, 22745-22753.	2.8	11
22	Critical Role of Silicon Nanoparticles Surface on Lithium Cell Electrochemical Performance Analyzed by FTIR, Raman, EELS, XPS, NMR, and BDS Spectroscopies. Journal of Physical Chemistry C, 2014, 118, 17318-17331.	3.1	89
23	Very High Surface Capacity Observed Using Si Negative Electrodes Embedded in Copper Foam as 3D Current Collectors. Advanced Energy Materials, 2014, 4, 1301718.	19.5	64
24	Abnormal operando structural behavior of sodium battery material: Influence of dynamic on phase diagram of Na_xFePO_4 . Electrochemistry Communications, 2014, 38, 104-106.	4.7	38
25	Degradation diagnosis of aged $\text{Li}_4\text{Ti}_5\text{O}_{12}/\text{LiFePO}_4$ batteries. Journal of Power Sources, 2014, 267, 744-752.	7.8	21
26	Synergistic Effect in Carbon Coated LiFePO_4 for High Yield Spontaneous Grafting of Diazonium Salt. Structural Examination at the Grain Agglomerate Scale. Journal of the American Chemical Society, 2013, 135, 11614-11622.	13.7	25
27	Electric field induced avalanche breakdown and non-volatile resistive switching in the Mott Insulators AM_4Q_8 . European Physical Journal: Special Topics, 2013, 222, 1046-1056.	2.6	14
28	Deposition by radio frequency magnetron sputtering of GaV_4S_8 thin films for resistive random access memory application. Thin Solid Films, 2013, 533, 54-60.	1.8	9
29	Strong anisotropic influence of local-field effects on the dielectric response of MoO_3 . Physical Review B, 2013, 88, .	3.2	88
30	Correlation between irreversible capacity and electrolyte solvents degradation probed by NMR in Si-based negative electrode of Li-ion cell. Electrochemistry Communications, 2013, 33, 72-75.	4.7	59
31	Electrical characterizations of resistive random access memory devices based on GaV_4S_8 thin layers. Thin Solid Films, 2013, 533, 61-65.	1.8	19
32	Nanoscale compositional changes during first delithiation of Si negative electrodes. Journal of Power Sources, 2013, 227, 237-242.	7.8	25
33	An electrochemically roughened Cu current collector for Si-based electrode in Li-ion batteries. Journal of Power Sources, 2013, 239, 308-314.	7.8	78
34	A low-cost and high performance ball-milled Si-based negative electrode for high-energy Li-ion batteries. Energy and Environmental Science, 2013, 6, 2145.	30.8	274
35	NMR monitoring of electrode/electrolyte interphase in the case of air-exposed and carbon coated LiFePO_4 . Journal of Power Sources, 2013, 243, 682-690.	7.8	13
36	Toward the Aqueous Processing of $\text{Li}_4\text{Ti}_5\text{O}_{12}$: A Comparative Study with LiFePO_4 . Journal of the Electrochemical Society, 2012, 159, A1083-A1090.	2.9	17

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37	Effect of glutaric anhydride additive on the LiNi _{0.4} Mn _{1.6} O ₄ electrode/electrolyte interface evolution: A MAS NMR and TEM/EELS study. Journal of Power Sources, 2012, 215, 170-178.	7.8	39
38	New insights into the silicon-based electrode's irreversibility along cycle life through simple gravimetric method. Journal of Power Sources, 2012, 220, 180-184.	7.8	93
39	Revisiting lithium K and iron M _{2,3} edge superimposition: The case of lithium battery material LiFePO ₄ . Micron, 2012, 43, 16-21.	2.2	20
40	Quantitative MAS NMR characterization of the LiMn _{1/2} Ni _{1/2} O ₂ electrode/electrolyte interphase. Solid State Nuclear Magnetic Resonance, 2012, 42, 51-61.	2.3	41
41	The failure mechanism of nano-sized Si-based negative electrodes for lithium ion batteries. Journal of Materials Chemistry, 2011, 21, 6201.	6.7	317
42	First evidence of resistive switching in polycrystalline GaV ₄ S ₈ thin layers. Physica Status Solidi - Rapid Research Letters, 2011, 5, 53-55.	2.4	23
43	Structure and Stability of Sodium Intercalated Phases in Olivine FePO ₄ . Chemistry of Materials, 2010, 22, 4126-4128.	6.7	436
44	Origin of valence and core excitations in LiFePO ₄ and FePO ₄ . Journal of Physics Condensed Matter, 2010, 22, 275501.	1.8	40
45	Valence electron energy-loss spectroscopy of silicon negative electrodes for lithium batteries. Physical Chemistry Chemical Physics, 2010, 12, 220-226.	2.8	36
46	Coaxial nickel/poly(p-phenylene vinylene) nanowires as luminescent building blocks manipulated magnetically. Nanotechnology, 2009, 20, 405601.	2.6	23
47	Hierarchical and Resilient Conductive Network of Bridged Carbon Nanotubes and Nanofibers for High-Energy Si Negative Electrodes. Electrochemical and Solid-State Letters, 2009, 12, A76.	2.2	55
48	Fast determination of phases in Li _x FePO ₄ using low losses in electron energy-loss spectroscopy. Applied Physics Letters, 2009, 94, .	3.3	35
49	Electron energy-loss spectroscopy in the low-loss region as a characterization tool of electrode materials. Ionics, 2008, 14, 191-195.	2.4	8
50	Stability of LiFePO ₄ in water and consequence on the Li battery behaviour. Ionics, 2008, 14, 583-587.	2.4	49
51	Is LiFePO ₄ Stable in Water?. Electrochemical and Solid-State Letters, 2008, 11, A4.	2.2	98
52	Local field effects at Li K edges in electron energy-loss spectra of Li ₂ O and LiF. Physical Review B, 2008, 77, .	3.2	14
53	Determination of Lithium Insertion Sites in Li _x TiP ₄ (x = 2~11) by Electron Energy-Loss Spectroscopy. Journal of Physical Chemistry C, 2007, 111, 3996-4002.	3.1	19
54	Synthesis of nanosized Si particles via a mechanochemical solid-liquid reaction and application in Li-ion batteries. Solid State Ionics, 2007, 178, 1297-1303.	2.7	38

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55	Ab initio simulation of the electron energy-loss near-edge structures at the LiK edge in Li _{1-x} Li ₂ O, and LiMn ₂ O ₄ . <i>Physical Review B</i> , 2006, 74, .	3.2	33
56	Electron energy loss spectroscopy analysis of lithium deintercalated Li _{5/3} ~xTi _{7/3} CrO ₇ . <i>Journal of Physics and Chemistry of Solids</i> , 2006, 67, 1295-1298.	4.0	3
57	Formation of Li _{1+n} V ₃ O ₈ /I ² -Li _{1/3} V ₂ O ₅ /C nanocomposites by carboreduction and resulting improvements of the capacity retention. <i>Journal of Physics and Chemistry of Solids</i> , 2006, 67, 1312-1314.	4.0	7
58	Study of Li _{1+x} V ₃ O ₈ by band structure calculations and spectroscopies. <i>Journal of Physics and Chemistry of Solids</i> , 2006, 67, 1238-1242.	4.0	11
59	Energy loss spectroscopic profiling across linear interfaces: The example of amorphous carbon superlattices. <i>Ultramicroscopy</i> , 2006, 106, 346-355.	1.9	5
60	Formation of Li _[sub 1+n] V _[sub 3] O _[sub 8] ~I ² -Li _[sub 1~3] V _[sub 2] O _[sub 5] ~C Nanocomposites by Carboreduction and the Resulting Improvement in Li Capacity Retention. <i>Journal of the Electrochemical Society</i> , 2006, 153, A295.	2.9	20
61	Subnanometer-resolved measurement of the tunneling effective mass using bulk plasmons. <i>Applied Physics Letters</i> , 2006, 88, 122109.	3.3	3
62	Electron energy-loss spectra calculations and experiments as a tool for the identification of a lamellar C ₃ N ₄ compound. <i>Physical Review B</i> , 2006, 73, .	3.2	41
63	Evidence of a rutile-phase characteristic peak in low-energy loss spectra. <i>Physical Review B</i> , 2004, 69, .	3.2	77
64	Improved comparison of low energy loss spectra with band structure calculations: the example of BN filaments. <i>Ultramicroscopy</i> , 2003, 94, 293-303.	1.9	28
65	Electronic structure of a hole doped oxide with a quasi-1D crystal structure Y ₂ ~x(Sr,Ca) _x BaNiO ₅ . <i>Journal of Alloys and Compounds</i> , 2001, 317-318, 149-152.	5.5	9
66	Interpretation of pre-edge features in the Ti and S K-edge x-ray-absorption near-edge spectra in the layered disulfides TiS ₂ and TaS ₂ . <i>Physical Review B</i> , 1997, 55, 9508-9513.	3.2	40
67	Relativistic effects in electron-energy-loss-spectroscopy observations of the Si/SiO ₂ interface plasmon peak. <i>Physical Review B</i> , 1997, 56, 6774-6781.	3.2	97
68	XANES Study of the Charge Transfer upon Lithium Intercalation into Lamellar Transition Metal Dichalcogenides. <i>European Physical Journal Special Topics</i> , 1997, 7, C2-257-C2-258.	0.2	0
69	Electronic structures and charge transfer in lithium and mercury intercalated titanium disulfides. <i>Journal of Physics and Chemistry of Solids</i> , 1996, 57, 1117-1122.	4.0	36
70	Mercury sublattice melting transition in the misfit intercalation compound H _{1.24} TiS ₂ . <i>Journal of Physics and Chemistry of Solids</i> , 1996, 57, 1129-1132.	4.0	8
71	Sulfur K-Edge X-Ray-Absorption Study of the Charge Transfer upon Lithium Intercalation into Titanium Disulfide. <i>Physical Review Letters</i> , 1996, 77, 2101-2104.	7.8	88
72	Experimental and theoretical studies of the electronic structure of TiS ₂ . <i>Physical Review B</i> , 1996, 54, R11009-R11013.	3.2	40

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73	Structural and physical properties of the misfit intercalation compounds Hg_xTaS_2 ($x=0.58, 1.19, \text{ and } 1.3$). <i>Physical Review B</i> , 1995, 52, 11359-11371.	3.2	6
74	Structural Investigation of Mercury-Intercalated Titanium Disulfide. 2. HRTEM of Hg_xTiS_2 . <i>Chemistry of Materials</i> , 1995, 7, 1140-1152.	6.7	20
75	TEM Study of the Misfit Intercalation Compounds α - $Hg_{1.19}TaS_2$ and β - $Hg_{1.3}TaS_2$. <i>Inorganic Chemistry</i> , 1995, 34, 5496-5500.	4.0	3
76	Structural Investigation of Mercury-Intercalated Titanium Disulfide. 1. The Crystal Structure of $Hg_{1.24}TiS_2$. <i>Chemistry of Materials</i> , 1995, 7, 1132-1139.	6.7	29
77	Mercury Intercalation into Lamellar Transition Metal Disulfides. <i>Molecular Crystals and Liquid Crystals</i> , 1994, 244, 325-330.	0.3	6
78	Mercury Intercalation in Titanium and Tantalum Disulfides. <i>NATO ASI Series Series B: Physics</i> , 1993, , 351-354.	0.2	2
79	XPS and SEM-EDX Study of Electrolyte Nature Effect on Li Electrode in Lithium Metal Batteries. <i>ACS Applied Energy Materials</i> , 0, , .	5.1	17