

Vincent Chevrier

List of Publications by Year in descending order

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32
papers

8,011
citations

279798

23
h-index

414414

32
g-index

33
all docs

33
docs citations

33
times ranked

10416
citing authors

#	ARTICLE	IF	CITATIONS
1	Python Materials Genomics (pymatgen): A robust, open-source python library for materials analysis. Computational Materials Science, 2013, 68, 314-319.	3.0	2,392
2	Alloy Negative Electrodes for Li-Ion Batteries. Chemical Reviews, 2014, 114, 11444-11502.	47.7	1,675
3	Voltage, stability and diffusion barrier differences between sodium-ion and lithium-ion intercalation materials. Energy and Environmental Science, 2011, 4, 3680.	30.8	1,236
4	Challenges for Na-ion Negative Electrodes. Journal of the Electrochemical Society, 2011, 158, A1011.	2.9	770
5	Hybrid density functional calculations of redox potentials and formation energies of transition metal compounds. Physical Review B, 2010, 82, .	3.2	298
6	First Principles Model of Amorphous Silicon Lithiation. Journal of the Electrochemical Society, 2009, 156, A454.	2.9	177
7	Understanding Anomalous Behavior in Coulombic Efficiency Measurements on Li-Ion Batteries. Journal of the Electrochemical Society, 2015, 162, A278-A283.	2.9	171
8	First principles study of Li ⁺ -Si crystalline phases: Charge transfer, electronic structure, and lattice vibrations. Journal of Alloys and Compounds, 2010, 496, 25-36.	5.5	165
9	Evaluating Si-Based Materials for Li-Ion Batteries in Commercially Relevant Negative Electrodes. Journal of the Electrochemical Society, 2014, 161, A783-A791.	2.9	151
10	Comparison of small polaron migration and phase separation in olivine LiMnPO ₄ and LiFePO ₄ . $\frac{d}{dx} \left(\frac{d}{dx} \right)$	3.2	128
11	In Situ Detection of Lithium Plating on Graphite Electrodes by Electrochemical Calorimetry. Journal of the Electrochemical Society, 2013, 160, A588-A594.	2.9	116
12	Studies of the Capacity Fade Mechanisms of LiCoO ₂ /Si-Alloy: Graphite Cells. Journal of the Electrochemical Society, 2016, 163, A1146-A1156.	2.9	115
13	First Principles Studies of Disordered Lithiated Silicon. Journal of the Electrochemical Society, 2010, 157, A392.	2.9	90
14	Combinatorial Studies of Si _{1-x} O _x as a Potential Negative Electrode Material for Li-Ion Battery Applications. Journal of the Electrochemical Society, 2013, 160, A1587-A1593.	2.9	73
15	Design of Amorphous Alloy Electrodes for Li-Ion Batteries. Electrochemical and Solid-State Letters, 2004, 7, A310.	2.2	60
16	First principles studies of silicon as a negative electrode material for lithium-ion batteries. Canadian Journal of Physics, 2009, 87, 625-632.	1.1	53
17	First-principles study of iron oxyfluorides and lithiation of FeOF. Physical Review B, 2013, 87, .	3.2	52
18	Design and Testing of Prelithiated Full Cells with High Silicon Content. Journal of the Electrochemical Society, 2018, 165, A1129-A1136.	2.9	52

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19	The Effect of Carbon Dioxide on the Cycle Life and Electrolyte Stability of Li-Ion Full Cells Containing Silicon Alloy. <i>Journal of the Electrochemical Society</i> , 2017, 164, A2527-A2533.	2.9	42
20	Probing robustness of cellular automata through variations of asynchronous updating. <i>Natural Computing</i> , 2012, 11, 553-564.	3.0	31
21	Crystal Structure, Physical Properties, and Electrochemistry of Copper Substituted LiFePO ₄ Single Crystals. <i>Chemistry of Materials</i> , 2012, 24, 166-173.	6.7	31
22	Production and visualization of quaternary combinatorial thin films. <i>Measurement Science and Technology</i> , 2006, 17, 1399-1404.	2.6	29
23	Activation Energies of Crystallization Events in Electrochemically Lithiated Silicon. <i>Journal of the Electrochemical Society</i> , 2011, 158, A1207.	2.9	24
24	Measurement of Li-Ion Battery Electrolyte Stability by Electrochemical Calorimetry. <i>Journal of the Electrochemical Society</i> , 2017, 164, A889-A896.	2.9	13
25	Isothermal Calorimetry Evaluation of Metallurgical Silicon as a Negative Electrode Material for Li-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2021, 168, 030504.	2.9	11
26	Design of Positive Electrodes for Li-Ion Full Cells with Silicon. <i>Journal of the Electrochemical Society</i> , 2018, 165, A2968-A2977.	2.9	10
27	First steps on asynchronous lattice-gas models with an application to a swarming rule. <i>Natural Computing</i> , 2013, 12, 551-560.	3.0	9
28	A high throughput method using electron microprobe analysis for quantification of protein adsorption on surfaces. <i>Surface Science</i> , 2008, 602, 795-804.	1.9	7
29	Studies of Si-Fe-C Electrode Materials Prepared by Combinatorial Sputter Deposition. <i>Journal of the Electrochemical Society</i> , 2017, 164, A498-A507.	2.9	7
30	A Robustness Approach to Study Metastable Behaviours in a Lattice-Gas Model of Swarming. <i>Lecture Notes in Computer Science</i> , 2013, , 84-97.	1.3	6
31	First Steps on Asynchronous Lattice-Gas Models with an Application to a Swarming Rule. <i>Lecture Notes in Computer Science</i> , 2012, , 633-642.	1.3	4
32	A Trade-Off Between Simplicity and Robustness? Illustration on a Lattice-Gas Model of Swarming. <i>Emergence, Complexity and Computation</i> , 2018, , 239-259.	0.3	0