Loic Baggetto

List of Publications by Year
in descending order

56 papers	4,569 citations	109321 35 h-index	155660 55 g-index
57 all docs	57 docs citations	57 times ranked	6651 citing authors

#	Article	IF	Citations
1	Allâ€Solidâ€State Lithiumâ€Ion Microbatteries: A Review of Various Threeâ€Dimensional Concepts. Advanced Energy Materials, 2011, 1, 10-33.	19.5	645
2	High Energy Density Allâ€Solidâ€State Batteries: A Challenging Concept Towards 3D Integration. Advanced Functional Materials, 2008, 18, 1057-1066.	14.9	325
3	Intrinsic thermodynamic and kinetic properties of Sb electrodes for Li-ion and Na-ion batteries: experiment and theory. Journal of Materials Chemistry A, 2013, 1, 7985.	10.3	226
4	Germanium as negative electrode material for sodium-ion batteries. Electrochemistry Communications, 2013, 34, 41-44.	4.7	206
5	Characterization of sodium ion electrochemical reaction with tin anodes: Experiment and theory. Journal of Power Sources, 2013, 234, 48-59.	7.8	186
6	In Situ Ambient Pressure X-ray Photoelectron Spectroscopy Studies of Lithium-Oxygen Redox Reactions. Scientific Reports, 2012, 2, 715.	3.3	180
7	Elucidating the Phase Transformation of Li₄Ti₅O₁₂ Lithiation at the Nanoscale. ACS Nano, 2016, 10, 4312-4321.	14.6	144
8	Electrochemical and Solid-State Lithiation of Graphitic C₃N₄. Chemistry of Materials, 2013, 25, 503-508.	6.7	141
9	Surface chemistry of metal oxide coated lithium manganese nickel oxide thin film cathodes studied by XPS. Electrochimica Acta, 2013, 90, 135-147.	5.2	140
10	Sonochemical functionalization of mesoporous carbon for uranium extraction from seawater. Journal of Materials Chemistry A, 2013, 1, 3016.	10.3	132
11	Mo3Sb7 as a very fast anode material for lithium-ion and sodium-ion batteries. Journal of Materials Chemistry A, 2013, 1, 11163.	10.3	121
12	Cu2Sb thin films as anode for Na-ion batteries. Electrochemistry Communications, 2013, 27, 168-171.	4.7	115
13	Hydrogen evolution at the negative electrode of the all-vanadium redox flow batteries. Journal of Power Sources, 2014, 248, 560-564.	7.8	113
14	The reaction mechanism of SnSb and Sb thin film anodes for Na-ion batteries studied by X-ray diffraction, 119Sn and 121Sb MÃ¶ssbauer spectroscopies. Journal of Power Sources, 2014, 267, 329-336.	7.8	109
15	Probing the electrode/electrolyte interface in the lithium excess layered oxide Li1.2Ni0.2Mn0.6O2. Physical Chemistry Chemical Physics, 2013, 15, 11128.	2.8	107
16	The electrochemical reactions of pure indium with Li and Na: Anomalous electrolyte decomposition, benefits of FEC additive, phase transitions and electrode performance. Journal of Power Sources, 2014, 248, 1105-1117.	7.8	93
17	AlSb thin films as negative electrodes for Li-ion and Na-ion batteries. Journal of Power Sources, 2013, 243, 699-705.	7.8	89
18	Understanding the Role of NH₄F and Al₂O₃ Surface Co-modification on Lithium-Excess Layered Oxide Li_{1.2}Ni_{0.2}Mn_{0.6}O₂. ACS Applied Materials & Interfaces, 2015, 7, 19189-19200.	8.0	87

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19	Preparation and CO2 adsorption properties of soft-templated mesoporous carbons derived from chestnut tannin precursors. Microporous and Mesoporous Materials, 2016, 222, 94-103.	4.4	86
20	Honeycombâ€Structured Silicon: Remarkable Morphological Changes Induced by Electrochemical (De)Lithiation. Advanced Materials, 2011, 23, 1563-1566.	21.0	81
21	Effect of Morphology and Manganese Valence on the Voltage Fade and Capacity Retention of Li[Li_{2/12}Ni_{3/12}Mn_{7/12}]O₂. ACS Applied Materials & Interfaces, 2014, 6, 18868-18877.	8.0	76
22	An Artificial Solid Electrolyte Interphase Enables the Use of a LiNi_{0.5} Mn_{1.5} O₄ 5 V Cathode with Conventional Electrolytes. Advanced Energy Materials, 2013, 3, 1275-1278.	19.5	75
23	Fabrication and characterization of Liâ€"Mnâ€"Niâ€"O sputtered thin film high voltage cathodes for Li-ion batteries. Journal of Power Sources, 2012, 211, 108-118.	7.8	71
24	In Situ Determination of the Liquid/Solid Interface Thickness and Composition for the Li Ion Cathode LiMn_{1.5}Ni_{0.5}O₄. ACS Applied Materials & Interfaces, 2014, 6, 18569-18576.	8.0	68
25	The reaction mechanism of FeSb2 as anode for sodium-ion batteries. Physical Chemistry Chemical Physics, 2014, 16, 9538.	2.8	65
26	Probing the Mechanism of Sodium Ion Insertion into Copper Antimony Cu₂Sb Anodes. Journal of Physical Chemistry C, 2014, 118, 7856-7864.	3.1	64
27	3D negative electrode stacks for integrated all-solid-state lithium-ion microbatteries. Journal of Materials Chemistry, 2010, 20, 3703.	6.7	62
28	Influence of Hydrocarbon and CO₂ on the Reversibility of Liâ€"O₂ Chemistry Using <i>In Situ</i> Ambient Pressure X-ray Photoelectron Spectroscopy. Journal of Physical Chemistry C, 2013, 117, 25948-25954.	3.1	59
29	Unraveling manganese dissolution/deposition mechanisms on the negative electrode in lithium ion batteries. Physical Chemistry Chemical Physics, 2014, 16, 10398.	2.8	59
30	Direct measurement of the chemical reactivity of silicon electrodes with LiPF6-based battery electrolytes. Chemical Communications, 2014, 50, 3081.	4.1	56
31	Degradation mechanisms of lithium-rich nickel manganese cobalt oxide cathode thin films. RSC Advances, 2014, 4, 23364.	3.6	45
32	In situ X-ray absorption spectroscopy of germanium evaporated thin film electrodes. Electrochimica Acta, 2010, 55, 7074-7079.	5.2	44
33	Synthesis and Characterization of Lithium Bis(fluoromalonato)borate for Lithiumâ€Ion Battery Applications. Advanced Energy Materials, 2014, 4, 1301368.	19.5	43
34	On the activation and charge transfer kinetics of evaporated silicon electrode/electrolyte interfaces. Electrochimica Acta, 2009, 54, 5937-5941.	5.2	38
35	Predictions of particle size and lattice diffusion pathway requirements for sodium-ion anodes using Î·-Cu6Sn5 thin films as a model system. Physical Chemistry Chemical Physics, 2013, 15, 10885.	2.8	38
36	Gas evolution from cathode materials: A pathway to solvent decomposition concomitant to SEI formation. Journal of Power Sources, 2013, 239, 341-346.	7.8	34

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37	Evidence for the Formation of Nitrogen-Rich Platinum and Palladium Nitride Nanoparticles. Chemistry of Materials, 2013, 25, 4936-4945.	6.7	33
38	The local atomic structure and chemical bonding in sodium tin phases. Journal of Materials Chemistry A, 2014, 2, 18959-18973.	10.3	31
39	Bis(fluoromalonato)borate (BFMB) anion based ionic liquid as an additive for lithium-ion battery electrolytes. Journal of Materials Chemistry A, 2014, 2, 7606-7614.	10.3	31
40	Type I Clathrates as Novel Silicon Anodes: An Electrochemical and Structural Investigation. Advanced Science, 2015, 2, 1500057.	11.2	30
41	Atomic Layer Deposition for All-Solid-State 3D-Integrated Batteries. ECS Transactions, 2009, 25, 333-344.	0.5	28
42	Formation of Iron Oxyfluoride Phase on the Surface of Nano-Fe3O4 Conversion Compound for Electrochemical Energy Storage. Journal of Physical Chemistry Letters, 2013, 4, 3798-3805.	4.6	28
43	The electrochemical reactions of SnO2 with Li and Na: A study using thin films and mesoporous carbons. Journal of Power Sources, 2015, 284, 1-9.	7.8	27
44	Transparent Thin Film Solid-State Lithium Ion Batteries. ACS Applied Materials & Interfaces, 2019, 11, 683-690.	8.0	26
45	Probing battery chemistry with liquid cell electron energy loss spectroscopy. Chemical Communications, 2015, 51, 16377-16380.	4.1	25
46	Reaction mechanism of tin nitride (de)lithiation reaction studied by means of 119Sn MÃ¶ssbauer spectroscopy. Electrochimica Acta, 2010, 55, 6617-6631.	5.2	14
47	Interpreting Electrochemical and Chemical Sodiation Mechanisms and Kinetics in Tin Antimony Battery Anodes Using <i>in Situ</i> Transmission Electron Microscopy and Computational Methods. ACS Applied Energy Materials, 2019, 2, 3578-3586.	5.1	14
48	(Invited) All-Solid-State Batteries: A Challenging Route towards 3D Integration. ECS Transactions, 2010, 33, 213-222.	0.5	11
49	Alumina thin films prepared by direct liquid injection chemical vapor deposition of dimethylaluminum isopropoxide: a processâ€structure investigation. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 989-995.	0.8	10
50	Processâ€structureâ€properties relationship in direct liquid injection chemical vapor deposition of amorphous alumina from aluminum triâ€isopropoxide. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 944-952.	0.8	9
51	A Processâ€Structure Investigation of Aluminum Oxide and Oxycarbide Thin Films prepared by Direct Liquid Injection CVD of Dimethylaluminum Isopropoxide (DMAI). Chemical Vapor Deposition, 2015, 21, 343-351.	1.3	8
52	Amorphous alumina thin films deposited on titanium: Interfacial chemistry and thermal oxidation barrier properties. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 470-480.	1.8	7
53	Amorphous Alumina Barrier Coatings on Glass: MOCVD Process and Hydrothermal Aging. Advanced Materials Interfaces, 2016, 3, 1600014.	3.7	5
54	Efficient, durable protection of the Ti6242S titanium alloy against high-temperature oxidation through MOCVD processed amorphous alumina coatings. Journal of Materials Science, 2020, 55, 4883-4895.	3.7	5

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55	Amorphous Alumina Films Efficiently Protect Ti6242S against Oxidation and Allow Operation above 600 Â°C. Materials Science Forum, 0, 941, 1846-1852.	0.3	3
56	Towards High Energy Density 3D-integrated Lithium-ion Micro-batteries. Materials Research Society Symposia Proceedings, 2009, 1168, 103.	0.1	1