

Mark N Obrovac

List of Publications by Year in descending order

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116
papers

9,101
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109137

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117
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117
docs citations

117
times ranked

8005
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantitative measurement of solid electrolyte interphase growth on Si-based anode materials. <i>Journal of Power Sources</i> , 2022, 530, 231281.	4.0	3
2	Preparation of Low Surface Area Si-Alloy Anodes for Li-Ion Cells by Ball Milling. <i>Journal of the Electrochemical Society</i> , 2022, 169, 060540.	1.3	5
3	Effect of Post-Grinding and Heat Treatment on the Electrochemical Performance of NMC622 Li-Ion Battery Cathode Materials. <i>ECS Meeting Abstracts</i> , 2022, MA2022-01, 358-358.	0.0	0
4	(Invited) Engineered Electrode Materials Via Dry Processing. <i>ECS Meeting Abstracts</i> , 2022, MA2022-01, 412-412.	0.0	0
5	Inorganic Compounds as Binders for Si-Alloy Anodes. <i>Journal of the Electrochemical Society</i> , 2021, 168, 020505.	1.3	10
6	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.	1.3	11
7	Enhancing NMC/silicon alloy full cell cycling by adding water to the electrolyte. <i>Journal of Applied Electrochemistry</i> , 2021, 51, 1501-1507.	1.5	1
8	Si(CO) _y Negative Electrodes for Li-Ion Batteries. <i>Chemistry of Materials</i> , 2021, 33, 7386-7395.	3.2	7
9	Si-TiN alloy anode materials prepared by reactive N ₂ gas milling: thermal stability and electrochemistry in Li-cells. <i>Electrochimica Acta</i> , 2021, 396, 139259.	2.6	3
10	Quantitative composition determination by Mössbauer spectroscopy. <i>MRS Communications</i> , 2020, 10, 123-128.	0.8	2
11	Quantifying the cost effectiveness of non-aqueous potassium-ion batteries. <i>Journal of Power Sources</i> , 2020, 464, 228228.	4.0	25
12	Polyaniline Electrode Activation in Li Cells. <i>Journal of the Electrochemical Society</i> , 2020, 167, 080501.	1.3	10
13	Engineered Particle Synthesis by Dry Particle Microgranulation. <i>Cell Reports Physical Science</i> , 2020, 1, 100063.	2.8	16
14	Electrochemistry and Thermal Behavior of SiO _x Made by Reactive Gas Milling. <i>Journal of the Electrochemical Society</i> , 2020, 167, 110501.	1.3	12
15	Synthesis, Lithium Insertion and Thermal Stability of Si ^δ Mo Alloys. <i>Journal of the Electrochemical Society</i> , 2020, 167, 130531.	1.3	3
16	All-Dry Synthesis of Single Crystal NMC Cathode Materials for Li-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2020, 167, 130536.	1.3	37
17	LiF as an Alloy Component or Slurry Additive in Si-Alloy Anodes. <i>Journal of the Electrochemical Society</i> , 2020, 167, 160524.	1.3	0
18	Understanding interfacial impedance growth in porous electrodes containing blended active materials. <i>Journal of Power Sources</i> , 2019, 438, 226955.	4.0	14

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19	Quantitative Determination of Carbon Dioxide Content in Organic Electrolytes by Infrared Spectroscopy. <i>Journal of the Electrochemical Society</i> , 2019, 166, A2467-A2470.	1.3	2
20	Ball Milled Si-W Alloys: Part II. Thermal Behavior and Performance in Li Cells. <i>Journal of the Electrochemical Society</i> , 2019, 166, A2791-A2796.	1.3	5
21	Spherically Smooth Cathode Particles by Mechanofusion Processing. <i>Journal of the Electrochemical Society</i> , 2019, 166, A2924-A2927.	1.3	14
22	Si-TiN alloy Li-ion battery anode materials prepared by reactive N ₂ gas milling. <i>Journal of Power Sources</i> , 2019, 438, 227003.	4.0	13
23	Small Molecule Slurry Additives for Si Alloy Coatings with CMC/SBR Binder. <i>Journal of the Electrochemical Society</i> , 2019, 166, A3217-A3221.	1.3	9
24	Stabilizing NaCrO ₂ by Sodium Site Doping with Calcium. <i>Journal of the Electrochemical Society</i> , 2019, 166, A2058-A2064.	1.3	29
25	Hexagonal and monoclinic NaNi _{0.8} Co _{0.15} Al _{0.05} O ₂ (Na-NCA) for sodium ion batteries. <i>Journal of Power Sources</i> , 2019, 433, 226698.	4.0	13
26	SiC-Free Carbon-Silicon Alloys Prepared by Delithiation as Lithium-Ion Battery Negative Electrodes. <i>Chemistry of Materials</i> , 2019, 31, 3883-3890.	3.2	10
27	Mechanofusion-derived Si-alloy/graphite composite electrode materials for Li-ion batteries. <i>Journal of Materials Chemistry A</i> , 2019, 7, 8335-8343.	5.2	23
28	Ball Milled Si-W Alloys: Part I. Microstructural and Phase Evolution during Ball Milling. <i>Journal of the Electrochemical Society</i> , 2019, 166, A1170-A1175.	1.3	5
29	An Investigation of the Fe-Mn-Si System for Li-Ion Battery Negative Electrodes. <i>Journal of the Electrochemical Society</i> , 2019, 166, A21-A26.	1.3	16
30	A high-quality mechanofusion coating for enhancing lithium-ion battery cathode material performance. <i>MRS Communications</i> , 2019, 9, 245-250.	0.8	20
31	Si-alloy negative electrodes for Li-ion batteries. <i>Current Opinion in Electrochemistry</i> , 2018, 9, 8-17.	2.5	68
32	Hexagonal platelet graphite and its application in Li-ion batteries. <i>Carbon</i> , 2018, 134, 507-518.	5.4	23
33	Sintered polymeric binders for Li-ion battery alloy anodes. <i>Canadian Journal of Chemistry</i> , 2018, 96, 765-770.	0.6	1
34	A Simple Synthesis Route for High-Capacity SiO _x Anode Materials with Tunable Oxygen Content for Lithium-Ion Batteries. <i>Chemistry of Materials</i> , 2018, 30, 7418-7422.	3.2	46
35	Effect of Controlled-Atmosphere Storage and Ethanol Rinsing on NaNi _{0.5} Mn _{0.5} O ₂ for Sodium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 38246-38254.	4.0	58
36	Si-TiN alloy Li-ion battery negative electrode materials made by N ₂ gas milling. <i>MRS Communications</i> , 2018, 8, 1352-1357.	0.8	6

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37	Thermoelectrochemical Activation of CoO in Na Cells. Journal of the Electrochemical Society, 2018, 165, A1595-A1600.	1.3	1
38	Selecting inactive materials with low electrolyte reactivity for lithium-ion cells. Journal of Power Sources, 2018, 397, 374-381.	4.0	9
39	Synthesis and Electrochemistry of O3-type NaFeO ₂ ·nNaCo _{0.5} Ni _{0.5} O ₂ Solid Solutions for Na-Ion Positive Electrodes. ACS Applied Materials & Interfaces, 2018, 10, 22013-22022.	4.0	12
40	Li Insertion in Ball Milled Si-Mn Alloys. Journal of the Electrochemical Society, 2018, 165, A1734-A1740.	1.3	17
41	Crystal Structures and Electrochemical Performance of Air-Stable Na _{2/3} Ni _{1/3} ·xCu _x Mn _{2/3} O ₂ in Sodium Cells. Chemistry of Materials, 2017, 29, 1623-1631.	3.2	160
42	Low Voltage Sodium Intercalation in Na _x V _x Ti _{1-x} O ₂ (2/3 ≤ x ≤ 1). Journal of the Electrochemical Society, 2017, 164, A490-A497.	1.3	8
43	Electrochemistry of Sputtered and Ball Milled Si-Fe-O Alloys in Li Cells. Journal of the Electrochemical Society, 2017, 164, A1165-A1172.	1.3	8
44	Rapid mechanochemical synthesis of amorphous alloys. AIP Advances, 2017, 7, .	0.6	27
45	Investigation of O3-type Na _{0.9} Ni _{0.45} Mn _x Ti _{0.55-x} O ₂ (0 ≤ x ≤ 0.55) as positive electrode materials for sodium-ion batteries. Electrochimica Acta, 2017, 233, 284-291.	2.6	38
46	Electrolyte Reactivity on Graphite and Copper as Measured in Lithium Double Half Cells. Journal of the Electrochemical Society, 2017, 164, A2977-A2986.	1.3	7
47	Lithium Insertion in Nanostructured Si _{1-x} Ti _x Alloys. Journal of the Electrochemical Society, 2017, 164, A3006-A3010.	1.3	24
48	Voronoi Tessellated Graphite Produced by Low Temperature Catalytic Graphitization from Renewable Resources. ChemSusChem, 2017, 10, 3409-3418.	3.6	23
49	Electrochemical Activity of Nano-NiSi ₂ in Li Cells. Journal of the Electrochemical Society, 2016, 163, A2456-A2460.	1.3	19
50	Structural and Electrochemical Investigation of Fe _x Si _{1-x} Thin Films in Li Cells. Journal of the Electrochemical Society, 2016, 163, A2011-A2016.	1.3	20
51	The Electrochemical Behavior of Polyimide Binders in Li and Na Cells. Journal of the Electrochemical Society, 2016, 163, A364-A372.	1.3	36
52	The Electrochemical Reaction Mechanism of Tin Phosphide with Sodium. Journal of the Electrochemical Society, 2016, 163, A1188-A1191.	1.3	21
53	Electrochemistry of Cu _x Si _{1-x} Alloys in Li Cells. Journal of the Electrochemical Society, 2016, 163, A1275-A1279.	1.3	22
54	Layered amorphous silicon as negative electrodes in lithium-ion batteries. Journal of Power Sources, 2016, 332, 290-298.	4.0	30

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55	Phenolic Resin as an Inexpensive High Performance Binder for Li-Ion Battery Alloy Negative Electrodes. Journal of the Electrochemical Society, 2016, 163, A2035-A2039.	1.3	15
56	Honeycomb Compound $\text{Na}_3\text{Ni}_2\text{BiO}_6$ as Positive Electrode Material in Na Cells. Journal of the Electrochemical Society, 2016, 163, A2362-A2367.	1.3	23
57	The Electrochemistry of Sputtered and Ball Milled C_{1-x}B_x ($0 \leq x \leq 0.60$) Alloys in Li and Na Cells. Electrochimica Acta, 2016, 209, 285-292.	2.6	1
58	Electrochemistry of Catalytically Graphitized Ball Milled Carbon in Li Batteries. Journal of the Electrochemical Society, 2016, 163, A858-A866.	1.3	4
59	Combinatorial Study of the Si-Sn-O System as Negative Electrode Materials in Li-Ion Cells. Journal of the Electrochemical Society, 2016, 163, A203-A209.	1.3	3
60	$\text{Li}_{15}\text{Si}_4$ Formation in Silicon Thin Film Negative Electrodes. Journal of the Electrochemical Society, 2016, 163, A255-A261.	1.3	105
61	The Electrochemistry of Amorphous Si-B Thin Film Electrodes in Li Cells. Journal of the Electrochemical Society, 2016, 163, A192-A196.	1.3	16
62	$\text{Ni}_x\text{Si}_{1-x}$ Alloys Prepared by Mechanical Milling as Negative Electrode Materials for Lithium Ion Batteries. Journal of the Electrochemical Society, 2016, 163, A13-A18.	1.3	47
63	Reversible lithium insertion in catalytically graphitized sugar carbon. Electrochemistry Communications, 2015, 60, 221-224.	2.3	16
64	Li-ion battery negative electrodes based on the $\text{Fe}_x\text{Zn}_{1-x}$ alloy system. Journal of Non-Crystalline Solids, 2015, 409, 183-190.	1.5	4
65	Investigation of the $\text{NaNi}_x\text{Mn}_{1-x}\text{O}_2$ ($0 \leq x \leq 1$) System for Na-Ion Battery Cathode Materials. Journal of the Electrochemical Society, 2015, 162, A453-A459.	1.3	57
66	The Reversible Magnesiumation of Pb. Electrochimica Acta, 2015, 165, 162-165.	2.6	75
67	Mössbauer and Electrochemical Investigations of Carbon-Rich $\text{Fe}_{1-x}\text{C}_x$ Films. Electrochimica Acta, 2015, 170, 16-24.	2.6	6
68	Combinatorial Investigations of Ni-Si Negative Electrode Materials for Li-Ion Batteries. Journal of the Electrochemical Society, 2015, 162, A1858-A1863.	1.3	54
69	Mechanically Milled Fe-Si-Zn Alloys as Negative Electrodes for Li-Ion Batteries. Journal of the Electrochemical Society, 2015, 162, A2319-A2324.	1.3	7
70	A Combinatorial Investigation of Fe-Si-Zn Thin Film Negative Electrodes for Li-Ion Batteries. Journal of the Electrochemical Society, 2015, 162, A229-A234.	1.3	19
71	Mixed Transition Metal Titanate and Vanadate Negative Electrode Materials for Na-Ion Batteries. Journal of the Electrochemical Society, 2015, 162, A15-A20.	1.3	19
72	Evaluation of Electrolyte Salts and Solvents for Na-Ion Batteries in Symmetric Cells. Journal of the Electrochemical Society, 2014, 161, A1748-A1752.	1.3	26

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73	Investigation of $P2\text{-Na}_{2/3}\text{Mn}_{1/3}\text{Fe}_{1/3}\text{Co}_{1/3}\text{O}_2$ for Na-Ion Battery Positive Electrodes. Journal of the Electrochemical Society, 2014, 161, A2232-A2236.	1.3	47
74	An Investigation of the C-Zn System as Lithium-Ion Battery Anode Materials. Journal of the Electrochemical Society, 2014, 161, A643-A647.	1.3	11
75	Structure and Electrochemistry of $\text{Na}_x\text{Fe}_x\text{Ti}_{1-x}\text{O}_2(1.0)$. Tj ETQq1 1 0.784314 rgBT A1801-A1805.	1.3	23
76	Conflat Two and Three Electrode Electrochemical Cells. Journal of the Electrochemical Society, 2014, 161, A2182-A2187.	1.3	24
77	Alloy Negative Electrodes for Li-Ion Batteries. Chemical Reviews, 2014, 114, 11444-11502.	23.0	1,675
78	High Energy Density Calendered Si Alloy/Graphite Anodes. Journal of the Electrochemical Society, 2014, 161, A1698-A1705.	1.3	89
79	Low Surface Area Si Alloy/Ionomer Composite Anodes for Lithium-Ion Batteries. Journal of the Electrochemical Society, 2014, 161, A1976-A1980.	1.3	8
80	Investigation of the reversible sodiation of Sn foil by ex-situ X-ray diffractometry and Mössbauer effect spectroscopy. Journal of Alloys and Compounds, 2014, 617, 271-276.	2.8	26
81	Low Voltage Sodium Intercalation in $\text{Na}_x\text{Ni}_{x/2}\text{Ti}_{1-x/2}\text{O}_2(0.5 \leq x \leq 1.0)$. Journal of the Electrochemical Society, 2014, 161, A1158-A1163.	1.3	37
82	Nanostructured $\text{Sn}_{30}\text{Co}_{30}\text{C}_{40}$ alloys for lithium-ion battery negative electrodes prepared by horizontal roller milling. Journal of Alloys and Compounds, 2014, 595, 138-141.	2.8	13
83	In Situ XRD Study of Silicon, Lead and Bismuth Negative Electrodes in Nonaqueous Sodium Cells. Journal of the Electrochemical Society, 2014, 161, A416-A421.	1.3	137
84	Structure and Electrochemistry of $\text{Na}_x\text{Fe}_x\text{Mn}_{1-x}\text{O}_2(1.0 \leq x \leq 0.5)$ for Na-Ion Battery Positive Electrodes. Journal of the Electrochemical Society, 2013, 160, A361-A367.	1.3	124
85	$(\text{Cu}_6\text{Sn}_5)_x\text{C}_x$ active/inactive nanocomposite negative electrodes for Na-ion batteries. Electrochimica Acta, 2013, 112, 133-137.	2.6	36
86	Sodium Insertion into Tin Cobalt Carbon Active/Inactive Nanocomposite. Journal of the Electrochemical Society, 2013, 160, A869-A872.	1.3	36
87	Reversible Insertion of Sodium in Tin. Journal of the Electrochemical Society, 2012, 159, A1801-A1805.	1.3	300
88	Evaluation of $\text{Mg}[\text{N}(\text{SO}_2\text{CF}_3)_2]_2/\text{Acetonitrile}$ Electrolyte for Use in Mg-Ion Cells. Journal of the Electrochemical Society, 2012, 159, A2005-A2009.	1.3	67
89	Structural Changes in LiAlSi During Electrochemical Cycling. ECS Electrochemistry Letters, 2012, 1, A10-A12.	1.9	6
90	A comparison of sputtered and mechanically milled $\text{Cu}_6\text{Sn}_5+\text{C}$ materials for Li-ion battery negative electrodes. Journal of Power Sources, 2012, 216, 139-144.	4.0	20

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91	A small angle X-ray scattering and electrochemical study of the decomposition of wood during pyrolysis. Carbon, 2012, 50, 3717-3723.	5.4	35
92	Alloy Negative Electrodes for High Energy Density Metal-Ion Cells. Journal of the Electrochemical Society, 2011, 158, A1411.	1.3	86
93	An In Situ Study of the Electrochemical Reaction of Li with Amorphous Nanostructured Cu ₆ Sn ₅ + C. Journal of the Electrochemical Society, 2011, 158, A1328.	1.3	15
94	Room temperature crystallization kinetics of amorphous Cu ₆ Sn ₅ +C alloys. Journal of Alloys and Compounds, 2011, 509, 6705-6710.	2.8	6
95	Comparison of the Reactivity of Na _x C ₆ and Li _x C ₆ with Non-Aqueous Solvents and Electrolytes. Electrochemical and Solid-State Letters, 2011, 14, A130.	2.2	83
96	Effect of Heat Treatment on Si Electrodes Using Polyvinylidene Fluoride Binder. Journal of the Electrochemical Society, 2008, 155, A234.	1.3	108
97	Al-Si Thin-Film Negative Electrodes for Li-Ion Batteries. Journal of the Electrochemical Society, 2008, 155, A851.	1.3	45
98	Alloy Design for Lithium-Ion Battery Anodes. Journal of the Electrochemical Society, 2007, 154, A849.	1.3	463
99	Reversible Cycling of Crystalline Silicon Powder. Journal of the Electrochemical Society, 2007, 154, A103.	1.3	1,014
100	Simple Model for the Capacity of Amorphous Silicon-Aluminum-Transition Metal Negative Electrode Materials. Journal of the Electrochemical Society, 2006, 153, A1201.	1.3	41
101	Al-M (M=Cr, Fe, Mn, Ni) Thin-Film Negative Electrode Materials. Journal of the Electrochemical Society, 2006, 153, A484.	1.3	41
102	The Impact of the Addition of Rare Earth Elements to Si _{1-x} Sn _x Negative Electrode Materials for Li-Ion Batteries. Journal of the Electrochemical Society, 2006, 153, A1211.	1.3	25
103	A Comparison of the Reactions of the SiSn, SiAg, and SiZn Binary Systems with L3i. Journal of the Electrochemical Society, 2006, 153, A282.	1.3	59
104	Electrochemical Reaction of the Si _{1-x} Zn _x Binary System with Li. Journal of the Electrochemical Society, 2005, 152, A2335.	1.3	31
105	Structural Changes in Silicon Anodes during Lithium Insertion/Extraction. Electrochemical and Solid-State Letters, 2004, 7, A93.	2.2	1,652
106	Ca ₆ [Cr ₂ N ₆]H, the First Quaternary Nitride-Hydride.. ChemInform, 2003, 34, no.	0.1	0
107	Ca ₆ [Cr ₂ N ₆]H, the First Quaternary Nitride-Hydride. Inorganic Chemistry, 2003, 42, 5572-5578.	1.9	27
108	Electrochemically Active Lithia/Metal and Lithium Sulfide/Metal Composites. Electrochemical and Solid-State Letters, 2002, 5, A70.	2.2	92

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109	The Electrochemical Displacement Reaction of Lithium with Metal Oxides. Journal of the Electrochemical Society, 2001, 148, A576.	1.3	123
110	Implications of finite-size and surface effects on nanosize intercalation materials. Physical Review B, 2000, 61, 6713-6719.	1.1	14
111	A Mössbauer effect investigation of the Li-Sn system. Journal of Alloys and Compounds, 1999, 289, 135-142.	2.8	109
112	Structure and electrochemistry of LiMO ₂ (M=Ti, Mn, Fe, Co, Ni) prepared by mechanochemical synthesis. Solid State Ionics, 1998, 112, 9-19.	1.3	154
113	Explanation for the 4.8-V plateau in LiCr _x Mn _{2-x} O ₄ . Physical Review B, 1998, 57, 5728-5733.	1.1	38
114	Use of carbon black to eliminate surface charging effects in photoelectron spectroscopy measurements of powders. Applied Physics Letters, 1997, 71, 2262-2264.	1.5	2
115	Thermal stability of Li _x CoO ₂ , Li _x NiO ₂ and Li _x MnO ₂ and consequences for the safety of Li-ion cells. Solid State Ionics, 1994, 69, 265-270.	1.3	646
116	Current-Corrected Cycling Strategies for True Electrode Performance Measurement. Batteries and Supercaps, 0, , .	2.4	1