

# Nae-Lih Wu

## List of Publications by Year in descending order

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114  
papers

6,226  
citations

50276

46  
h-index

71685

76  
g-index

114  
all docs

114  
docs citations

114  
times ranked

8210  
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced Cycle Life of Si Anode for Li-Ion Batteries by Using Modified Elastomeric Binder. <i>Electrochemical and Solid-State Letters</i> , 2005, 8, A100.	2.2	292
2	Nanocrystalline oxide supercapacitors. <i>Materials Chemistry and Physics</i> , 2002, 75, 6-11.	4.0	262
3	High Polarity Poly(vinylidene difluoride) Thin Coating for Dendrite-Free and High-Performance Lithium Metal Anodes. <i>Advanced Energy Materials</i> , 2018, 8, 1701482.	19.5	259
4	Electrochemical capacitor of magnetite in aqueous electrolytes. <i>Journal of Power Sources</i> , 2003, 113, 173-178.	7.8	242
5	Investigation of Pseudocapacitive Charge-Storage Reaction of $\text{MnO}[\text{sub } 2] \cdot \text{nH}[\text{sub } 2]\text{O}$ Supercapacitors in Aqueous Electrolytes. <i>Journal of the Electrochemical Society</i> , 2006, 153, A1317.	2.9	224
6	Effect of electrode structure on performance of Si anode in Li-ion batteries: Si particle size and conductive additive. <i>Journal of Power Sources</i> , 2005, 140, 139-144.	7.8	206
7	Study on Solid-Electrolyte-Interphase of Si and C-Coated Si Electrodes in Lithium Cells. <i>Journal of the Electrochemical Society</i> , 2009, 156, A95.	2.9	165
8	A Mechanically Robust and Highly Ion-Conductive Polymer Blend Coating for High-Power and Long-Life Lithium-Ion Battery Anodes. <i>Advanced Materials</i> , 2015, 27, 130-137.	21.0	159
9	Characterization of $\text{MnFe}_2\text{O}_4/\text{LiMn}_2\text{O}_4$ aqueous asymmetric supercapacitor. <i>Journal of Power Sources</i> , 2011, 196, 851-854.	7.8	149
10	Electrochemical Characterizations on Si and C-Coated Si Particle Electrodes for Lithium-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2005, 152, A1719.	2.9	139
11	A study on the interior microstructures of working Sn particle electrode of Li-ion batteries by in situ X-ray transmission microscopy. <i>Electrochemistry Communications</i> , 2010, 12, 234-237.	4.7	129
12	Effects of $\text{TiO}_2$ coating on high-temperature cycle performance of $\text{LiFePO}_4$ -based lithium-ion batteries. <i>Journal of Power Sources</i> , 2008, 185, 466-472.	7.8	125
13	In situ crystallographic investigations of charge storage mechanisms in $\text{MnO}_2$ -based electrochemical capacitors. <i>Journal of Power Sources</i> , 2012, 206, 454-462.	7.8	124
14	Investigation on capacity fading of aqueous $\text{MnO}_2 \cdot \text{nH}_2\text{O}$ electrochemical capacitor. <i>Journal of Power Sources</i> , 2008, 177, 660-664.	7.8	106
15	Effect of calcination atmosphere on $\text{TiO}_2$ photocatalysis in hydrogen production from methanol/water solution. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2004, 163, 277-280.	3.9	98
16	High-temperature carbon-coated aluminum current collector for enhanced power performance of $\text{LiFePO}_4$ electrode of Li-ion batteries. <i>Electrochemistry Communications</i> , 2010, 12, 488-491.	4.7	96
17	Electrochemical Capacitor of $\text{MnFe}[\text{sub } 2]\text{O}[\text{sub } 4]$ with NaCl Electrolyte. <i>Electrochemical and Solid-State Letters</i> , 2005, 8, A495.	2.2	95
18	Study on Microstructural Deformation of Working Sn and SnSb Anode Particles for Li-Ion Batteries by in Situ Transmission X-ray Microscopy. <i>Journal of Physical Chemistry C</i> , 2011, 115, 22040-22047.	3.1	95

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19	Study on Pseudocapacitance Mechanism of Aqueous MnFe <sub>2</sub> O <sub>4</sub> Supercapacitor. Journal of the Electrochemical Society, 2007, 154, A34.	2.9	93
20	Manganese oxide electrochemical capacitor with potassium poly(acrylate) hydrogel electrolyte. Journal of Power Sources, 2008, 179, 430-434.	7.8	89
21	Electrochemical characterization on MnFe <sub>2</sub> O <sub>4</sub> /carbon black composite aqueous supercapacitors. Journal of Power Sources, 2006, 162, 1437-1443.	7.8	87
22	Synthesis and Characterization of Nanoporous NiSi-Si Composite Anode for Lithium-Ion Batteries. Journal of the Electrochemical Society, 2007, 154, A97.	2.9	87
23	High-performance carbon-coated ZnMn <sub>2</sub> O <sub>4</sub> nanocrystallite supercapacitors with tailored microstructures enabled by a novel solution combustion method. Journal of Power Sources, 2018, 378, 90-97.	7.8	87
24	Nano-porous SiO <sub>2</sub> /carbon composite anode for lithium-ion batteries. Journal of Applied Electrochemistry, 2009, 39, 1643-1649.	2.9	86
25	Enhanced High-Temperature Cycle Life of LiFePO <sub>4</sub> -Based Li-Ion Batteries by Vinylene Carbonate as Electrolyte Additive. Electrochemical and Solid-State Letters, 2006, 9, A537.	2.2	80
26	A dual-functional polymer coating on a lithium anode for suppressing dendrite growth and polysulfide shuttling in Li-S batteries. Chemical Communications, 2017, 53, 963-966.	4.1	77
27	A rapid and green method for the fabrication of conductive hydrogels and their applications in stretchable supercapacitors. Journal of Power Sources, 2019, 426, 205-215.	7.8	77
28	Experimental Study on Sodiation of Amorphous Silicon for Use as Sodium-Ion Battery Anode. Electrochimica Acta, 2016, 211, 265-272.	5.2	73
29	Understanding dynamics of polysulfide dissolution and re-deposition in working lithium-sulfur battery by in-operando transmission X-ray microscopy. Journal of Power Sources, 2014, 263, 98-103.	7.8	72
30	Composite films of carbon black nanoparticles and sulfonated-polythiophene as flexible counter electrodes for dye-sensitized solar cells. Journal of Power Sources, 2016, 302, 155-163.	7.8	62
31	An ultrathin ionomer interphase for high efficiency lithium anode in carbonate based electrolyte. Nature Communications, 2019, 10, 5824.	12.8	62
32	Spatially Confined MnO <sub>2</sub> Nanostructure Enabling Consecutive Reversible Charge Transfer from Mn(IV) to Mn(II) in a Mixed Pseudocapacitor-Battery Electrode. Advanced Energy Materials, 2015, 5, 1500772.	19.5	60
33	Hierarchical TiO <sub>2</sub> imbedded with graphene quantum dots for high-performance lithium storage. Chemical Communications, 2018, 54, 1413-1416.	4.1	60
34	Study on dynamics of structural transformation during charge/discharge of LiFePO <sub>4</sub> cathode. Electrochemistry Communications, 2008, 10, 335-339.	4.7	59
35	High-performance carbon-based supercapacitors using Al current-collector with conformal carbon coating. Materials Chemistry and Physics, 2009, 117, 294-300.	4.0	59
36	Spatial Distributions of Discharged Products of Lithium-Oxygen Batteries Revealed by Synchrotron X-ray Transmission Microscopy. Nano Letters, 2015, 15, 6932-6938.	9.1	57

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37	Thermodynamic stability of tetragonal zirconia nanocrystallites. <i>Journal of Materials Research</i> , 2001, 16, 666-669.	2.6	55
38	Long-term electrochemical behaviors of manganese oxide aqueous electrochemical capacitor under reducing potentials. <i>Electrochimica Acta</i> , 2010, 55, 7429-7435.	5.2	55
39	Structural and electrochemical properties of manganese substituted nickel cobaltite for supercapacitor application. <i>Electrochimica Acta</i> , 2012, 67, 67-72.	5.2	52
40	High-performance poly(3,4-ethylene-dioxythiophene):polystyrenesulfonate conducting-polymer supercapacitor containing hetero-dimensional carbon additives. <i>Journal of Power Sources</i> , 2013, 238, 69-73.	7.8	50
41	A proof-of-concept graphite anode with a lithium dendrite suppressing polymer coating. <i>Journal of Power Sources</i> , 2018, 406, 63-69.	7.8	50
42	Synthesis of high-performance MnOx/carbon composite as lithium-ion battery anode by a facile co-precipitation method: Effects of oxygen stoichiometry and carbon morphology. <i>Journal of Power Sources</i> , 2014, 253, 373-380.	7.8	48
43	Investigation on suppressed thermal runaway of Li-ion battery by hyper-branched polymer coated on cathode. <i>Electrochimica Acta</i> , 2013, 101, 11-17.	5.2	47
44	Titanium carbide nanocube core induced interfacial growth of crystalline polypyrrole/polyvinyl alcohol lamellar shell for wide-temperature range supercapacitors. <i>Journal of Power Sources</i> , 2015, 274, 1118-1125.	7.8	47
45	Carbon coated anatase TiO <sub>2</sub> mesocrystals enabling ultrastable and robust sodium storage. <i>Journal of Power Sources</i> , 2017, 359, 64-70.	7.8	47
46	Effects of current collectors on power performance of Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> anode for Li-ion battery. <i>Journal of Power Sources</i> , 2012, 197, 301-304.	7.8	46
47	Sulfur-Doped Anatase TiO <sub>2</sub> as an Anode for High-Performance Sodium-Ion Batteries. <i>ACS Applied Energy Materials</i> , 2019, 2, 3791-3797.	5.1	46
48	Enhanced Phase Stability for Tetragonal Zirconia in Precipitation Synthesis. <i>Journal of the American Ceramic Society</i> , 2000, 83, 3225-3227.	3.8	45
49	A dimensionally stable and fast-discharging graphite-silicon composite Li-ion battery anode enabled by electrostatically self-assembled multifunctional polymer-blend coating. <i>Chemical Communications</i> , 2015, 51, 8429-8431.	4.1	43
50	In Situ Transmission X-ray Microscopy Study on Working SnO Anode Particle of Li-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2011, 158, A1335.	2.9	42
51	Superabsorbent polymer binder for achieving MnO <sub>2</sub> supercapacitors of greatly enhanced capacitance density. <i>Electrochemistry Communications</i> , 2010, 12, 886-889.	4.7	41
52	Spontaneous solution-sol-gel process for preparing tin oxide monolith. <i>Journal of Materials Research</i> , 1996, 11, 813-820.	2.6	40
53	Electrochemical characterizations on MnO <sub>2</sub> supercapacitors with potassium polyacrylate and potassium polyacrylate-co-polyacrylamide gel polymer electrolytes. <i>Electrochimica Acta</i> , 2009, 54, 6148-6153.	5.2	40
54	Kinetic study on low-temperature synthesis of LiFePO <sub>4</sub> via solid-state reaction. <i>Journal of Power Sources</i> , 2006, 158, 550-556.	7.8	39

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55	Enhanced high-temperature cycle performance of LiFePO <sub>4</sub> /carbon batteries by an ion-sieving metal coating on negative electrode. <i>Electrochemistry Communications</i> , 2008, 10, 1823-1826.	4.7	39
56	Nb-doped Rutile TiO <sub>2</sub> Mesocrystals with Enhanced Lithium Storage Properties for Lithium Ion Battery. <i>Chemistry - A European Journal</i> , 2017, 23, 5059-5065.	3.3	39
57	An unexpected large capacity of ultrafine manganese oxide as a sodium-ion battery anode. <i>Nanoscale</i> , 2015, 7, 20075-20081.	5.6	38
58	Exploring an Interesting Si Source from Photovoltaic Industry Waste and Engineering It as a Li-Ion Battery High-Capacity Anode. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 5769-5775.	6.7	37
59	TiO <sub>2</sub> -B nanowires via topological conversion with enhanced lithium-ion intercalation properties. <i>Journal of Materials Chemistry A</i> , 2019, 7, 3842-3847.	10.3	37
60	Tetragonal LiMn <sub>2</sub> O <sub>4</sub> as dual-functional pseudocapacitor-battery electrode in aqueous Li-ion electrolytes. <i>Journal of Power Sources</i> , 2019, 412, 545-551.	7.8	35
61	Kinetic study and modeling of the solid-state reaction $Y_2BaCuO_5 + 3BaCuO_2 + 2CuO \rightarrow 2YBa_2Cu_3O_{6.5-x} + xO_2$ . <i>Journal of Materials Research</i> , 1990, 5, 2056-2065.	2.6	34
62	Synthesis of High-Performance Titanium Sub-Oxides for Electrochemical Applications Using Combination of Sol-Gel and Vacuum-Carbothermic Processes. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 3162-3168.	6.7	34
63	Engineering Rice Husk into a High-Performance Electrode Material through an Ecofriendly Process and Assessing Its Application for Lithium-Ion Sulfur Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 7851-7861.	6.7	34
64	Long-Term Charge/Discharge Cycling Stability of MnO <sub>2</sub> Aqueous Supercapacitor under Positive Polarization. <i>Journal of the Electrochemical Society</i> , 2011, 158, A422.	2.9	33
65	Brookite TiO <sub>2</sub> mesocrystals with enhanced lithium-ion intercalation properties. <i>Chemical Communications</i> , 2018, 54, 11491-11494.	4.1	33
66	Origin of shuttle-free sulfurized polyacrylonitrile in lithium-sulfur batteries. <i>Journal of Power Sources</i> , 2021, 492, 229508.	7.8	33
67	In Situ DRIFTS Analysis of Solid Electrolyte Interphase of Si-Based Anode with and without Fluoroethylene Carbonate Additive. <i>Journal of the Electrochemical Society</i> , 2017, 164, A3641-A3648.	2.9	32
68	Si-on-Graphite fabricated by fluidized bed process for high-capacity anodes of Li-ion batteries. <i>Chemical Engineering Journal</i> , 2021, 407, 126603.	12.7	31
69	A novel non-porous separator based on single-ion conducting triblock copolymer for stable lithium electrodeposition. <i>Journal of Power Sources</i> , 2019, 419, 58-64.	7.8	30
70	Study on the synthesis-microstructure-performance relationship of layered Li-excess nickel-manganese oxide as a Li-ion battery cathode prepared by high-temperature calcination. <i>Journal of Materials Chemistry A</i> , 2013, 1, 10847.	10.3	29
71	Polypyrrole/carbon supercapacitor electrode with remarkably enhanced high-temperature cycling stability by TiC nanoparticle inclusion. <i>Electrochemistry Communications</i> , 2013, 27, 172-175.	4.7	29
72	Evolution in Structural and Optical Properties of Stannic Oxide Xerogel upon Heat Treatment. <i>Journal of the American Ceramic Society</i> , 1999, 82, 67-73.	3.8	28

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73	Insight into microstructural and phase transformations in electrochemical sodiation-desodiation of a bismuth particulate anode. <i>Journal of Materials Chemistry A</i> , 2017, 5, 21536-21541.	10.3	28
74	Comparative study on nanostructured MnO <sub>2</sub> /carbon composites synthesized by spontaneous reduction for supercapacitor application. <i>Materials Chemistry and Physics</i> , 2011, 130, 367-372.	4.0	27
75	Polymeric artificial solid/electrolyte interphases for Li-ion batteries. <i>Progress in Natural Science: Materials International</i> , 2015, 25, 563-571.	4.4	23
76	Micrometer-Sized Nanoporous Sb/C Anode with High Volumetric Capacity and Fast Charging Performance for Sodium-Ion Batteries. <i>ACS Applied Energy Materials</i> , 2018, 1, 2317-2325.	5.1	23
77	Process Analysis on Photocatalyzed Dye Decomposition for Water Treatment with TiO <sub>2</sub> -Coated Rotating Disk Reactor. <i>Industrial &amp; Engineering Chemistry Research</i> , 2010, 49, 12173-12179.	3.7	22
78	1.2Volt manganese oxide symmetric supercapacitor. <i>Electrochemistry Communications</i> , 2011, 13, 1264-1267.	4.7	22
79	Investigating Mechanisms Underlying Elevated-Temperature-Induced Capacity Fading of Aqueous MnO <sub>2</sub> Polymorph Supercapacitors: Cryptomelane and Birnessite. <i>Journal of the Electrochemical Society</i> , 2015, 162, A5106-A5114.	2.9	21
80	Studies on graphene enfolded olivine composite electrode material via polyol technique for high rate performance lithium-ion batteries. <i>Electronic Materials Letters</i> , 2015, 11, 841-852.	2.2	20
81	Multifunctional co-poly(amic acid): A new binder for Si-based micro-composite anode of lithium-ion battery. <i>Journal of Power Sources</i> , 2016, 330, 246-252.	7.8	20
82	Electrochemical Capacitances of a Nanowire-Structured MnO <sub>2</sub> in Polyacrylate-Based Gel Electrolytes. <i>Journal of the Electrochemical Society</i> , 2012, 159, A899-A903.	2.9	18
83	Photocatalytic degradation of methyl orange by a multi-layer rotating disk reactor. <i>Environmental Science and Pollution Research</i> , 2012, 19, 3743-3750.	5.3	17
84	One-Step Fast Synthesis of Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> Particles Using an Atmospheric Pressure Plasma Jet. <i>Journal of the American Ceramic Society</i> , 2014, 97, 708-712.	3.8	17
85	Silicon oxide-on-graphite planar composite synthesized using a microwave-assisted coating method for use as a fast-charging lithium-ion battery anode. <i>Journal of Power Sources</i> , 2015, 296, 314-317.	7.8	17
86	Hydrothermal Synthesis of Submicron SnO Crystallites. <i>Journal of Materials Research</i> , 2000, 15, 1445-1448.	2.6	16
87	Enabling Extraordinary Rate Performance for Poorly Conductive Oxide Pseudocapacitors. <i>Energy and Environmental Materials</i> , 2020, 3, 405-413.	12.8	16
88	Development and characterizations of PVdF-PEMA gel polymer electrolytes. <i>Ionics</i> , 2012, 18, 283-289.	2.4	15
89	Evolution in Microstructural Properties of Cetyltrimethylammonium Bromide-Templated Mesoporous Tin Oxide upon Thermal Crystallization. <i>Journal of the American Ceramic Society</i> , 2004, 87, 1741-1746.	3.8	14
90	Efficient synthesis of high-sulfur-content cathodes for high-performance Li-S batteries based on solvothermal polysulfide chemistry. <i>Journal of Power Sources</i> , 2020, 450, 227676.	7.8	14

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91	Semi-Interpenetrating Polymer Network Electrolytes Based on a Spiro-Twisted Benzoxazine for All-Solid-State Lithium-Ion Batteries. ACS Applied Energy Materials, 2021, 4, 2663-2671.	5.1	14
92	Titanium carbide@polypyrrole core-shell nanoparticles prepared by controlled heterogeneous nucleation for rechargeable batteries. Chemical Communications, 2013, 49, 10784.	4.1	12
93	Effects of a graphene nanosheet conductive additive on the high-capacity lithium-excess manganese-nickel oxide cathodes of lithium-ion batteries. Journal of Applied Electrochemistry, 2014, 44, 1171-1177.	2.9	12
94	Remarkable microstructural reversibility of antimony in sodium ion battery anodes. Journal of Materials Chemistry A, 2020, 8, 22620-22625.	10.3	12
95	Synthesis of Porous Si Particles by Metal-assisted Chemical Etching for Li-ion Battery Application. Journal of the Chinese Chemical Society, 2012, 59, 1226-1232.	1.4	10
96	Tough Polymer Electrolyte with an Intrinsically Stabilized Interface with Li Metal for All-Solid-State Lithium-Ion Batteries. Journal of Physical Chemistry C, 2021, 125, 26339-26347.	3.1	10
97	Mesoporous crystalline SnO <sub>2</sub> of large surface area. Journal of Materials Research, 2003, 18, 2890-2894.	2.6	9
98	SEI Grown on MCMB-Electrode with Fluoroethylene Carbonate and Vinylene Carbonate Additives as Probed by In Situ DRIFTS. Journal of the Electrochemical Society, 2019, 166, A2741-A2748.	2.9	9
99	Preparation of tin oxide gels with versatile pore structures. Journal of Materials Science, 1999, 34, 2807-2812.	3.7	8
100	Microstructural Evolution of Nanocrystalline Magnetite Synthesized by Electrocoagulation. Journal of Materials Research, 2005, 20, 75-80.	2.6	7
101	Optimizing the Lithium Phosphorus Oxynitride Protective Layer Thickness on Low-Grade Composite Si-Based Anodes for Lithium-Ion Batteries. ChemistrySelect, 2018, 3, 729-735.	1.5	7
102	Electrochemical Properties of Al <sup>3+</sup> /Cl <sup>-</sup> Doped-0.2Li <sub>2</sub> MnO <sub>3</sub> · 0.8LiNiO <sub>2</sub> Cathode Materials for Lithium-Ion Batteries. Journal of Nanoscience and Nanotechnology, 2018, 18, 68-74.	0.9	6
103	Activated carbon with hierarchical porosity derived from biomass for lithium sulfur batteries. Vietnam Journal of Chemistry, 2019, 57, 182-188.	0.8	5
104	Epoxy-Based Interlocking Membranes for All Solid-State Lithium Ion Batteries: The Effects of Amine Curing Agents on Electrochemical Properties. Polymers, 2021, 13, 3244.	4.5	5
105	Anodes: High Polarity Poly(vinylidene difluoride) Thin Coating for Dendrite-Free and High-Performance Lithium Metal Anodes (Adv. Energy Mater. 2/2018). Advanced Energy Materials, 2018, 8, 1870008.	19.5	4
106	Investigations of Intramolecular Hydrogen Bonding Effect of a Polymer Brush Modified Silicon in Lithium-Ion Batteries. Advanced Materials Interfaces, 2022, 9, .	3.7	4
107	The synthesis and characterization of high purity mixed microporous/mesoporous activated carbon from rice husk. Vietnam Journal of Chemistry, 2018, 56, 684-688.	0.8	3
108	Room-Temperature Synthesis of LiMn <sub>2</sub> O <sub>4</sub> by Electrochemical Ion Exchange in an Aqueous Medium. ACS Sustainable Chemistry and Engineering, 0, , .	6.7	3

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109	High stability and high performance nitrogen doped carbon containers for lithium-ion batteries. Journal of Colloid and Interface Science, 2022, 625, 692-699.	9.4	3
110	The stability of $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ in contact with silver. Journal of Materials Research, 1994, 9, 1112-1121.	2.6	2
111	Spiro-Twisted Benzoxazine Derivatives Bearing Nitrile Group for All-Solid-State Polymer Electrolytes in Lithium Batteries. Polymers, 2022, 14, 2869.	4.5	1
112	Preparation of High-Purity $\text{Tl}_2\text{Ca}_n\text{Ba}_2\text{Cu}_{n+1}\text{O}_{6+2n}$ ( $n=1,2$ ) Powders from Stoichiometric Reactant Mixtures. Materials Research Society Symposia Proceedings, 1989, 169, 405.	0.1	0
113	In-operando Tomography and Energy-resolved Elemental Mapping Projection X-ray Microscopy and Transmission X-ray Microscopy Beamline at TPS of NSRRC. Microscopy and Microanalysis, 2018, 24, 428-429.	0.4	0
114	Enabling High-Rate Mn Oxide Pseudocapacitors Using Highly Dispersed $\text{Mn}_3\text{O}_4$ Nanocrystallites. ECS Meeting Abstracts, 2019, .	0.0	0