Shin-ichi Nishimura

List of Publications by Citations

71 papers	5,279 citations	33 h-index	72 g-index
78 ext. papers	5,756 ext. citations	9.2 avg, IF	5.69 L-index

#	Paper	IF	Citations
71	Experimental visualization of lithium diffusion in LixFePO4. *Nature Materials*, **2008**, 7, 707-11	27	596
70	A 3.8-V earth-abundant sodium battery electrode. *Nature Communications*, **2014**, 5, 4358	17.4	581
69	Room-temperature miscibility gap in LixFePO4. *Nature Materials*, **2006**, 5, 357-60	27	470
68	Sodium iron pyrophosphate: A novel 3.0 V iron-based cathode for sodium-ion batteries. *Electrochemistry Communications*, **2012**, 24, 116-119	5.1	268
67	Structure of Li2FeSiO4. *Journal of the American Chemical Society*, **2008**, 130, 13212-3	16.4	238
66	Isolation of Solid Solution Phases in Size-Controlled LixFePO4 at Room Temperature. *Advanced Functional Materials*, **2009**, 19, 395-403	15.6	232
65	New lithium iron pyrophosphate as 3.5 V class cathode material for lithium ion battery. *Journal of the American Chemical Society*, **2010**, 132, 13596-7	16.4	231
64	Lithium iron borates as high-capacity battery electrodes. *Advanced Materials*, **2010**, 22, 3583-7	24	204
63	High-Voltage Pyrophosphate Cathodes. *Advanced Energy Materials*, **2012**, 2, 841-859	21.8	182
62	Intermediate honeycomb ordering to trigger oxygen redox chemistry in layered battery electrode. *Nature Communications*, **2016**, 7, 11397	17.4	170
61	Polyanionic Insertion Materials for Sodium-Ion Batteries. *Advanced Energy Materials*, **2018**, 8, 1703055	21.8	165
60	Electrochemical Mg2+ intercalation into a bimetallic CuFe Prussian blue analog in aqueous electrolytes. *Journal of Materials Chemistry A*, **2013**, 1, 13055	13	126
59	Highly Reversible Oxygen-Redox Chemistry at 4.1 V in Na4/7□[?1/7Mn6/7]O2 (?: Mn Vacancy). *Advanced Energy Materials*, **2018**, 8, 1800409	21.8	116
58	Air Exposure Effect on LiFePO[sub 4]. *Electrochemical and Solid-State Letters*, **2008**, 11, A12		90
57	Shift of redox potential and kinetics in Lix(MnyFe1−y)PO4. *Journal of Power Sources*, **2009**, 189, 397-401	8.9	88
56	Off-Stoichiometry in Alluaudite-Type Sodium Iron Sulfate Na2+2xFe2−x(SO4)3 as an Advanced Sodium Battery Cathode Material. *ChemElectroChem*, **2015**, 2, 1019-1023	4.3	87
55	Phase Diagram of Olivine NaxFePO4 (0 Chemistry of Materials, **2013**, 25, 4557-4565	9.6	83

54	Kinetics of Nucleation and Growth in Two-Phase Electrochemical Reaction of LixFePO4. *Journal of Physical Chemistry C*, **2012**, 116, 7306-7311	3.8	78
53	High-voltage pyrophosphate cathode: insights into local structure and lithium-diffusion pathways. *Angewandte Chemie - International Edition*, **2012**, 51, 13149-53	16.4	66
52	Fe3+/Fe2+ Redox Couple Approaching 4 V in Li2□(Fe1−yMny)P2O7 Pyrophosphate Cathodes. *Chemistry of Materials*, **2012**, 24, 1055-1061	9.6	66
51	Structural and magnetic properties of Lix(MnyFe1−y)PO4 electrode materials for Li-ion batteries. *Journal of Power Sources*, **2009**, 189, 1154-1163	8.9	65
50	Sodium Intercalation Mechanism of 3.8 V Class Alluaudite Sodium Iron Sulfate. *Chemistry of Materials*, **2016**, 28, 5321-5328	9.6	62
49	Observation of the highest Mn3+/Mn2+ redox potential of 4.45 V in a Li2MnP2O7 pyrophosphate cathode. *Journal of Materials Chemistry*, **2012**, 22, 24526		57
48	Polymorphs of LiFeSO4F as cathode materials for lithium ion batteries - a first principle computational study. *Physical Chemistry Chemical Physics*, **2012**, 14, 8678-82	3.6	54
47	Mechanism of Sodium Storage in Hard Carbon: An X-Ray Scattering Analysis. *Advanced Energy Materials*, **2020**, 10, 1903176	21.8	54
46	Eco-efficient splash combustion synthesis of nanoscale pyrophosphate (Li2FeP2O7) positive-electrode using Fe(III) precursors. *Journal of Materials Chemistry*, **2012**, 22, 13455		50
45	An alluaudite Na2+2xFe2−x(SO4)3(x=0.2) derivative phase as insertion host for lithium battery. *Electrochemistry Communications*, **2015**, 51, 19-22	5.1	49
44	Synthesis and electrochemistry of monoclinic Li(MnxFe1−x)BO3: a combined experimental and computational study. *Journal of Materials Chemistry*, **2011**, 21, 10690		45
43	Pyrophosphate Chemistry toward Safe Rechargeable Batteries. *Chemistry of Materials*, **2013**, 25, 2538-2543	9.6	43
42	Unveiling the Origin of Unusual Pseudocapacitance of RuO2□hH2O from Its Hierarchical Nanostructure by Small-Angle X-ray Scattering. *Journal of Physical Chemistry C*, **2013**, 117, 12003-12009	3.8	42
41	Electrochemical Redox Mechanism in 3.5 V Li2-xFeP2O7 (0 □x □1) Pyrophosphate Cathode. *Chemistry of Materials*, **2012**, 24, 2598-2603	9.6	40
40	Coulombic self-ordering upon charging a large-capacity layered cathode material for rechargeable batteries. *Nature Communications*, **2019**, 10, 2185	17.4	38
39	High-Voltage Cr4+/Cr3+ Redox Couple in Polyanion Compounds. *ACS Applied Energy Materials*, **2018**, 1, 928-931	6.1	35
38	General Observation of Fe3+/Fe2+ Redox Couple Close to 4 V in Partially Substituted Li2FeP2O7 Pyrophosphate Solid-Solution Cathodes. *Chemistry of Materials*, **2013**, 25, 3623-3629	9.6	33
37	Polyanionic Solid-Solution Cathodes for Rechargeable Batteries. *Chemistry of Materials*, **2017**, 29, 3597-3602	9.6	32

36	The crystal structure and sodium disorder of high-temperature polymorph Na3PS4. *Journal of Materials Chemistry A*, **2017**, 5, 25025-25030	13	32
35	Reversible solid state redox of an octacyanometallate-bridged coordination polymer by electrochemical ion insertion/extraction. *Inorganic Chemistry*, **2013**, 52, 3772-9	5.1	29
34	Electrochromism of LixFePO4 Induced by Intervalence Charge Transfer Transition. *Journal of Physical Chemistry C*, **2012**, 116, 15259-15264	3.8	28
33	High-Temperature Neutron and X-ray Diffraction Study of Fast Sodium Transport in Alluaudite-type Sodium Iron Sulfate. *Chemistry of Materials*, **2016**, 28, 2393-2399	9.6	25
32	Synthesis and Electrochemistry of Na2.5(Fe1−yMny)1.75(SO4)3 Solid Solutions for Na-Ion Batteries. *ChemElectroChem*, **2016**, 3, 209-213	4.3	25
31	Alkaline Excess Strategy to NASICON-Type Compounds towards Higher-Capacity Battery Electrodes. *Journal of the Electrochemical Society*, **2016**, 163, A1469-A1473	3.9	25
30	Phase separation of a hexacyanoferrate-bridged coordination framework under electrochemical na-ion insertion. *Inorganic Chemistry*, **2014**, 53, 3141-7	5.1	23
29	Superstructure in the Metastable Intermediate-Phase Li2/3 FePO4 Accelerating the Lithium Battery Cathode Reaction. *Angewandte Chemie - International Edition*, **2015**, 54, 8939-42	16.4	23
28	Phase Boundary Structure of LixFePO4 Cathode Material Revealed by Atomic-Resolution Scanning Transmission Electron Microscopy. *Chemistry of Materials*, **2014**, 26, 6178-6184	9.6	22
27	Particle-size effects on the entropy behavior of a LixFePO4 electrode. *ChemPhysChem*, **2014**, 15, 2156-61	3.2	21
26	Iron-oxalato framework with one-dimensional open channels for electrochemical sodium-ion intercalation. *Chemistry - A European Journal*, **2015**, 21, 1096-101	4.8	20
25	Challenges toward higher temperature operation of LiFePO4. *Journal of Power Sources*, **2012**, 214, 166-170	8.9	18
24	Increased Conductivity in the Metastable Intermediate in LixFePO4 Electrode. *Chemistry of Materials*, **2016**, 28, 1101-1106	9.6	16
23	A new zero-strain material for electrochemical lithium insertion. *Journal of Materials Chemistry A*, **2013**, 1, 6550	13	15
22	Sodium Iron(II) Pyrosilicate Na2Fe2Si2O7: A Potential Cathode Material in the Na2O-FeO-SiO2 System. *Chemistry of Materials*, **2017**, 29, 4361-4366	9.6	14
21	Stabilization of a 4.5 V Cr/Cr redox reaction in NASICON-type NaCr(PO) by Ti substitution. *Chemical Communications*, **2019**, 55, 13717-13720	5.8	12
20	Resonant Photoemission Spectroscopy of the Cathode Material LixFePO4 for Lithium Ion Battery. *Journal of Physical Chemistry C*, **2011**, 115, 25519-25522	3.8	11
19	Resonant photoemission spectroscopy of the cathode material LixMn0.5Fe0.5PO4 for lithium-ion battery. *Journal of Power Sources*, **2013**, 226, 42-46	8.9	10

18	Preparation of an electrochemically-formed spinel lithium manganese oxide and its charge□discharge behaviors. *Journal of Power Sources*, **2005**, 146, 217-221	8.9	10
17	Electrochemical Properties of Heterosite FePO4 in Aqueous Mg2+ Electrolytes. *Electrochemistry*, **2014**, 82, 855-858	1.2	9
16	Combined Theoretical and Experimental Studies of Sodium Battery Materials. *Chemical Record*, **2019**, 19, 792	6.6	8
15	Reversible and High-rate Hard Carbon Negative Electrodes in a Fluorine-free Sodium-salt Electrolyte. *Electrochemistry*, **2020**, 88, 151-156	1.2	8
14	Defect induced sodium disorder and ionic conduction mechanism in Na1.82Mg1.09P2O7. *Journal of Materials Chemistry A*, **2014**, 2, 18353-18359	13	6
13	High-Voltage Pyrophosphate Cathode: Insights into Local Structure and Lithium-Diffusion Pathways. *Angewandte Chemie*, **2012**, 124, 13326-13330	3.6	6
12	A Fe-rich sodium iron orthophosphate as cathode material for rechargeable batteries. *Electrochemistry Communications*, **2017**, 79, 51-54	5.1	5
11	Splash Combustion Synthesis and Exploration of Alkali Metal Pyrophosphate (A2MP2O7, A = Li, Na) Cathodes. *ECS Transactions*, **2013**, 50, 71-77	1	5
10	Revisiting the Lithium Iron Borate (LiFeBO3) Cathode System: Synthetic and Electrochemical Findings. *ECS Transactions*, **2013**, 50, 21-26	1	4
9	A new polymorph of lithium manganese(II) pyrophosphate □Li2MnP2O7. *Dalton Transactions*, **2014**, 43, 1502-4	4.3	3
8	Superstructure in the Metastable Intermediate-Phase Li2/3FePO4 Accelerating the Lithium Battery Cathode Reaction. *Angewandte Chemie*, **2015**, 127, 9067-9070	3.6	2
7	Spectromicroscopic analysis of lithium intercalation in spinel LiMn2O4 for lithium-ion battery by 3D nano-ESCA. *Journal of Physics: Conference Series*, **2014**, 502, 012013	0.3	2
6	HPO as a building unit for sodium-ion battery cathodes: 3.1 V operation of NaFe(HPO) (0 Chemical Communications, **2019**, 55, 14155-14157	5.8	2
5	4.7 V Operation of the Cr4+/Cr3+ Redox Couple in Na3Cr2(PO4)2F3. *Chemistry of Materials*, **2021**, 33, 1373-1379	9.6	2
4	Electronic structure of Li2Fe1⊠MnxP2O7 for lithium-ion battery studied by resonant photoemission spectroscopy. *Journal of Physics: Conference Series*, **2014**, 502, 012004	0.3	1
3	A Theoretical study on the charge and discharge states of Na-ion battery cathode material, Na FePO F. *Journal of Computational Chemistry*, **2019**, 40, 237-246	3.5	1
2	Lithium-Rich O2-Type Li0.66[Li0.22Ru0.78]O2 Positive Electrode Material. *Journal of the Electrochemical Society*, **2022**, 169, 040536	3.9	0
1	Synthesis, crystal structure and possible proton conduction of Fe(H2PO4)2F. *Solid State Ionics*, **2019**, 338, 134-137	3.3	