Nobuyuki Imanishi

List of Publications by Year
in descending order

47 papers	1,573 citations	394390 19 h-index	302107 39 g-index
48 all docs	48 docs citations	48 times ranked	2341 citing authors

#	Article	IF	Citations
1	Synthesis of garnet-type Li7â^'xLa3Zr2O12â^'1/2x and its stability in aqueous solutions. Solid State Ionics, 2011, 183, 48-53.	2.7	206
2	Rechargeable lithiumâ€"air batteries: characteristics and prospects. Materials Today, 2014, 17, 24-30.	14.2	184
3	A reversible dendrite-free high-areal-capacity lithium metal electrode. Nature Communications, 2017, 8, 15106.	12.8	156
4	Lithium Dendrite Formation on a Lithium Metal Anode from Liquid, Polymer and Solid Electrolytes. Electrochemistry, 2016, 84, 210-218.	1.4	146
5	Li Deintercalationâ€Intercalation Reaction and Structural Change in Lithium Transition Metal Nitride, Li7MnN4. Journal of the Electrochemical Society, 1994, 141, 2966-2971.	2.9	88
6	Perspectives and challenges of rechargeable lithiumâ€"air batteries. Materials Today Advances, 2019, 4, 100031.	5.2	72
7	Phase formation of a garnet-type lithium-ion conductor Li7â^'3Al La3Zr2O12. Solid State Ionics, 2015, 277, 23-29.	2.7	62
8	Surface Layer and Morphology of Lithium Metal Electrodes. Electrochemistry, 2016, 84, 854-860.	1.4	60
9	4 V class aqueous hybrid electrochemical capacitor with battery-like capacity. RSC Advances, 2012, 2, 12144.	3.6	49
10	Sintering behavior and electrochemical properties of garnet-like lithium conductor Li6.25M0.25La3Zr2O12 (M: Al3+ and Ga3+). Solid State Ionics, 2017, 311, 69-74.	2.7	40
11	Destabilized Passivation Layer on Magnesium-Based Intermetallics as Potential Anode Active Materials for Magnesium Ion Batteries. Frontiers in Chemistry, 2019, 7, 7.	3.6	39
12	Effect of Anion Species in Early Stage of SEI Formation Process. Journal of the Electrochemical Society, 2019, 166, A3593-A3598.	2.9	38
13	Interface Properties between Lithium Metal and a Composite Polymer Electrolyte of PEO18Li(CF3SO2)2N-Tetraethylene Glycol Dimethyl Ether. Membranes, 2013, 3, 298-310.	3.0	36
14	Phase relation, structure and ionic conductivity of Li_{7â^'xâ^'3y}Al_yLa₃Zr_{2â^'x}Ta_xO₁₂. RSC Advances, 2016, 6, 78210-78218.	3.6	36
15	Solid Electrolyte Interphase Film on Lithium Metal Anode in Mixed-Salt System. Journal of the Electrochemical Society, 2019, 166, A5421-A5429.	2.9	34
16	A Review on Li⁺/H⁺ Exchange in Garnet Solid Electrolytes: From Instability against Humidity to Sustainable Processing in Water. ChemSusChem, 2021, 14, 4397-4407.	6.8	30
17	A Solvate Ionic Liquid as the Anolyte for Aqueous Rechargeable Liâ€"O₂ Batteries. ChemElectroChem, 2015, 2, 1144-1151.	3.4	28
18	Aqueous Lithium-Air Rechargeable Batteries. Electrochemistry, 2012, 80, 706-715.	1.4	27

#	Article	IF	Citations
19	In-operando FTIR Spectroscopy for Composite Electrodes of Lithium-ion Batteries. Electrochemistry, 2015, 83, 874-878.	1.4	26
20	Developments of the Advanced All-Solid-State Polymer Electrolyte Lithium Secondary Battery. Electrochemistry, 2009, 77, 784-797.	1.4	17
21	Characteristics of Braneriteâ€Type CuV2â€‰â^'â€‰x Mo x â€‰Oâ€‰6â€‰â€‰â€‰â€‰(â€‰0â€‰â‰â€‰xâ€‰â‰â€‰1â Electrochemical Society, 1991, 138, 2566-2571.	2.9	16
22	Development of the Carbon Anode in Lithium Ion Batteries. , 0, , 98-126.		15
23	Synthesis, Structure and Ionic Conductivity of Garnet Like Lithium Ion Conductor Li_{6.25+}<i>_x</i>Ga_{0.25}La₃₋<i>_x</i>Sr<i>_x</i>Zr<sub>2</ Journal of the Electrochemical Society, 2019, 166, A5168-A5173.	2.9	15
24	Lithium Ion Conducting Solid Electrolytes for Aqueous Lithium-air Batteries. Electrochemistry, 2014, 82, 938-945.	1.4	14
25	Improved Cycling Performance of Intermetallic Anode by Minimized SEI Layer Formation. Journal of the Electrochemical Society, 2018, 165, A1486-A1491.	2.9	13
26	Partial Disproportionation Gallium-Oxygen Reaction Boosts Lithium-Oxygen Batteries. Energy Storage Materials, 2021, 41, 475-484.	18.0	12
27	Water-Stable Lithium Electrode and Its Application in Aqueous Lithium/Air Secondary Batteries. Electrochemistry, 2010, 78, 360-362.	1.4	11
28	A hydrated strontium cobalt oxyhydroxide Ruddlesdenâ€“Popper phase as an oxygen electrocatalyst for aqueous lithiumâ€“oxygen rechargeable batteries. Chemical Communications, 2019, 55, 7454-7457.	4.1	11
29	A porous framework infiltrating Liâ€“O₂ battery: a low-resistance and high-safety system. Sustainable Energy and Fuels, 2020, 4, 1600-1606.	4.9	10
30	High Specific Energy Density Aqueous Lithium-Metal Chloride Rechargeable Batteries. Journal of the Electrochemical Society, 2017, 164, A1958-A1964.	2.9	9
31	Synthesis of NASICON type Li_{1.4}Al_{0.4}Ge_{0.2}Ti_{1.4}(PO₄)₃ solid electrolyte by rheological phase method. Journal of Asian Ceramic Societies, 2020, 8, 476-483.	2.3	9
32	Silicon-Carbon Composite Electrode Materials Prepared by Pyrolysis of a Mixture of Manila Hemp, Silicon Powder, and Flake Artificial Graphite for Lithium Batteries. Energies, 2017, 10, 1803.	3.1	8
33	High-Energy-Density Rechargeable Lithiumâ€“Nickel Chloride Aqueous Solution Batteries. ACS Omega, 2018, 3, 5558-5562.	3.5	8
34	Oxygen concentration measurement in the porous cathode of a lithium-air battery using a fine optical fiber sensor. Mechanical Engineering Letters, 2019, 5, 19-00095-19-00095.	0.6	8
35	Perovskite Oxides for the Cathode in Solid Oxide Fuel Cells. Electrochemistry, 2000, 68, 764-770.	1.4	8
36	Bifunctional 1-Boc-3-Iodoazetidine Enhancing Lithium Anode Stability and Rechargeability of Lithiumâ€“Oxygen Batteries. ACS Applied Materials & Interfaces, 2021, 13, 16437-16444.	8.0	7

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37	Preparation and Characterization of Platinum-Ceramic Composite Powders and Thin Films. Journal of the American Ceramic Society, 1993, 76, 192-196.	3.8	6
38	Oxygen Doping in Ca_{1-<i>x</i>}Sr_{<i>x</i>}FeO<sub>3-<i>z</i></sub& Perovskite Oxides by an Electrochemical Method. Journal of the Ceramic Society of Japan, 1998, 106, 759-762.	1.3	5
39	High proton conductivity of NaMg_{1âˆ’<i>x</i>}Li_{<i>x</i>}H_{<i>x</i>}(PO₃)₃Â·<i>y</i>H₂O with a three-dimensional open framework in the intermediate temperature range. Materials Advances, 2021, 2, 6603-6612.	5.4	4
40	Low-Temperature Synthesis of the Li2S-P2S5 Electrolytes by a Milling Process Combined with Heat Treatment. Electrochemistry, 2011, 79, 701-705.	1.4	2
41	Study of Degradation Processes of Carbon Negative Electrodes for All-solid Lithium Polymer Batteries. Electrochemistry, 2014, 82, 642-646.	1.4	2
42	Effect of Alumina Sources on the Fluorescence Properties of Long Persistent Phosphor, SrAl₂O₄:Eu²⁺, Dy³⁺. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2018, 65, 176-182.	0.2	2
43	Electrochemical kinetics of nanosized Ag and Ag2O thin films prepared by radio frequency magnetron sputtering. Journal of Solid State Electrochemistry, 2011, 15, 2031-2039.	2.5	1
44	In-situ Three-dimensional Visualization of Precipitation Behavior in a Porous Air Electrode for Aqueous Lithium-air Battery. Electrochemistry, 2015, 83, 831-833.	1.4	1
45	Synthesis and Proton Conductivity of the Mixed Cation Phosphate, KCo_{1âˆ’<i>x</i>}H_{2<i>x</i>}(PO₃)<sub> with a with a One-dimensional Tunnel Structure. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2022, 69, 99-103.	0.2	1
46	Water-stable high lithium-ion conducting Li1.4Al0.4Ge0.2Ti1.4(PO4)3-TiO2-LiClâ€¢H2Oâ€"epoxy resin composite film with high mechanical strength as separator for Li-air batteries. Journal of Solid State Electrochemistry, 0, , 1.	2.5	1
47	Solid-State Lithium-Air Batteries. ACS Symposium Series, 0, , 249-265.	0.5	0