Takayuki Doi

List of Publications by Year
in descending order

44 papers	1,283 citations	394421 19 h-index	361022 35 g-index
44 all docs	44 docs citations	44 times ranked	1845 citing authors

#	Article	IF	Citations
1	A concept of dual-salt polyvalent-metal storage battery. Journal of Materials Chemistry A, 2014, 2, 1144-1149.	10.3	133
2	Dilution of Highly Concentrated LiBF₄/Propylene Carbonate Electrolyte Solution with Fluoroalkyl Ethers for 5-V LiNi_{0.5}Mn_{1.5}O₄Positive Electrodes. Journal of the Electrochemical Society, 2017, 164, A6412-A6416.	2.9	110
3	Influence of Manganese Dissolution on the Degradation of Surface Films on Edge Plane Graphite Negative-Electrodes in Lithium-Ion Batteries. Journal of the Electrochemical Society, 2012, 159, A961-A966.	2.9	109
4	In Situ AFM Study of Surface Film Formation on the Edge Plane of HOPG for Lithium-Ion Batteries. Journal of Physical Chemistry C, 2011, 115, 25484-25489.	3.1	84
5	Concentrated LiPF6/PC electrolyte solutions for 5-V LiNi0.5Mn1.5O4 positive electrode in lithium-ion batteries. Electrochimica Acta, 2016, 209, 219-224.	5.2	75
6	Toward â€œrocking-chair typeâ€•Mgâ€“Li dual-salt batteries. Journal of Materials Chemistry A, 2015, 3, 10188-10194.	10.3	72
7	Temperature effects on SEI formation and cyclability of Si nanoflake powder anode in the presence of SEI-forming additives. Electrochimica Acta, 2017, 224, 186-193.	5.2	68
8	In situ Scanning Electron Microscopy of Silicon Anode Reactions in Lithium-Ion Batteries during Charge/Discharge Processes. Scientific Reports, 2016, 6, 36153.	3.3	65
9	LiBF₄-Based Concentrated Electrolyte Solutions for Suppression of Electrolyte Decomposition and Rapid Lithium-Ion Transfer at LiNi_{0.5}Mn_{1.5}O₄/Electrolyte Interface. Journal of the Electrochemical Society, 2016, 163, A2211-A2215.	2.9	52
10	Pulse Voltammetric and ac Impedance Spectroscopic Studies on Lithium Ion Transfer at an Electrolyte/Li4/3Ti5/3O4 Electrode Interface. Analytical Chemistry, 2005, 77, 1696-1700.	6.5	44
11	Improved Cycle Performance of LiNi_{0.8}Co_{0.1}Mn_{0.1}O₂ Positive Electrode Material in Highly Concentrated LiBF₄/DMC. Journal of the Electrochemical Society, 2019, 166, A82-A88.	2.9	40
12	Artificial lithium fluoride surface coating on silicon negative electrodes for the inhibition of electrolyte decomposition in lithium-ion batteries: visualization of a solid electrolyte interphase using <i>in situ</i> AFM. Nanoscale, 2018, 10, 17257-17264.	5.6	35
13	Si/Li₂S Battery with Solvate Ionic Liquid Electrolyte. Electrochemistry, 2016, 84, 887-890.	1.4	27
14	Lithium-Ion Transfer at an Electrolyte/Heat-Treated Nongraphitizable Carbon Electrode Interface. Journal of the Electrochemical Society, 2005, 152, A1521.	2.9	25
15	Influence of lithium silicate coating on retarding crack formation in LiNi0.5Co0.2Mn0.3O2 cathode particles. Electrochimica Acta, 2018, 291, 304-310.	5.2	23
16	Effect of Lithium Silicate Addition on the Microstructure and Crack Formation of LiNi_{0.8}Co_{0.1}Mn_{0.1}O₂ Cathode Particles. ACS Applied Materials & Interfaces, 2019, 11, 39910-39920.	8.0	23
17	Lowâ€Viscosity Î³â€Butyrolactoneâ€Based Concentrated Electrolyte Solutions for LiNi_{0.5}Mn_{1.5}O₄ Positive Electrodes in Lithiumâ€Ion Batteries. ChemElectroChem, 2017, 4, 2398-2403.	3.4	22
18	Fluoroalkyl ether-diluted dimethyl carbonate-based electrolyte solutions for high-voltage operation of LiNi_{0.5}Co_{0.2}Mn_{0.3}O₂ electrodes in lithium ion batteries. Sustainable Energy and Fuels, 2018, 2, 1197-1205.	4.9	22

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19	Morphology changes and long-term cycling durability of Si flake powder negative electrode for lithium-ion batteries. Electrochimica Acta, 2018, 267, 94-101.	5.2	22
20	Oxygen-Content Dependence of Cycle Performance and Morphology Changes in Amorphous-SiO<i>_x</i> Thin-Film Negative Electrodes for Lithium-Ion Batteries. Journal of the Electrochemical Society, 2019, 166, A258-A263.	2.9	19
21	What determines the critical size for phase separation in LiFePO4 in lithium ion batteries?. Journal of Materials Chemistry A, 2013, 1, 14532.	10.3	18
22	Solvation-controlled ester-based concentrated electrolyte solutions for high-voltage lithium-ion batteries. Current Opinion in Electrochemistry, 2018, 9, 49-55.	4.8	17
23	Suppression of Mn-Ion-Dissolution of LiNi_{0.5} Mn_{1.5} O₄ Electrodes in a Highly Concentrated Electrolyte Solution at Elevated Temperatures. ChemistrySelect, 2017, 2, 8824-8827.	1.5	16
24	Enhancement of Oxygen Reduction Reaction Activity of Pd Core-Pt Shell Structured Catalyst on a Potential Cycling Accelerated Durability Test. Electrocatalysis, 2018, 9, 125-138.	3.0	16
25	Single-Step Synthesis of Nanosized Titanium-Based Oxide/Carbon Nanotube Composites by Electrospray Deposition and Their Electrochemical Properties. Journal of Physical Chemistry C, 2009, 113, 7719-7722.	3.1	15
26	Cycle Performances of Si-flake-powder Anodes in Lithium Salt-tetraglyme Complex Electrolytes. Electrochemistry, 2015, 83, 837-839.	1.4	15
27	Quantitative Analysis of Solid Electrolyte Interphase and Its Correlation with The Electrochemical Performance of Lithium Ion Batteries Using Concentrated LiPF₆/propylene Carbonate. Journal of the Electrochemical Society, 2021, 168, 020530.	2.9	15
28	Silicon Nano-flake Powder as an Anode for The Next Generation Lithium-ion Batteries: Current Status and Challenges. Electrochemistry, 2017, 85, 623-629.	1.4	14
29	Improvement of Cycleability and Rateâ€Capability of LiNi 0.5 Co 0.2 Mn 0.3 O 2 Cathode Materials Coated with Lithium Boron Oxide by an Antisolvent Precipitation Method. ChemistrySelect, 2019, 4, 8676-8681.	1.5	14
30	Dilution Effects of Highly Concentrated Dimethyl Carbonate-Based Electrolytes with a Hydrofluoroether on Charge/Discharge Properties of LiNi_{0.8}Co_{0.1}Mn_{0.1}O₂ Positive Electrode. Journal of the Electrochemical Society, 2019, 166, A4005-A4013.	2.9	10
31	Lithium-ion battery performance enhanced by the combination of Si thin flake anodes and binary ionic liquid systems. Materials Advances, 2020, 1, 625-631.	5.4	9
32	Nonâ€Flammable and Highly Concentrated Carbonate Esterâ€Free Electrolyte Solutions for 5 Vâ€Class Positive Electrodes in Lithiumâ€Ion Batteries. ChemSusChem, 2021, 14, 2445-2451.	6.8	9
33	Extension of Anodic Potential Window of Ester-Based Electrolyte Solutions for High-Voltage Lithium Ion Batteries. ACS Applied Energy Materials, 2019, 2, 7728-7732.	5.1	8
34	Physicochemical Features of Fluorinated Ethyl Acetate-Based Highly Concentrated Electrolyte Solutions and Their Effects on Electrochemical Properties of LiNi0.8Co0.1Mn0.1O2 Positive Electrodes. Journal of Physical Chemistry C, 2021, 125, 12578-12584.	3.1	6
35	High Rate Charge and Discharge Characteristics of Graphite/SiO<i>_x</i> Composite Electrodes. Electrochemistry, 2017, 85, 403-408.	1.4	5
36	Communicationâ€"Enhancement of Structural Stability of LiNi0.5Co0.2Mn0.3O2 Cathode Particles against High-Voltage Cycling by Lithium Silicate Addition. Journal of the Electrochemical Society, 2019, 166, A941-A943.	2.9	5

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37	Hard X-ray Photoelectron Spectroscopy Analysis of Surface Chemistry of Spray Pyrolyzed LiNi_{0.5}Co_{0.2}Mn_{0.3}O₂ Positive Electrode Coated with Lithium Boron Oxide. Electrochemistry, 2019, 87, 357-364.	1.4	4
38	How is the concentration determined for rapid lithium ion transfer in highly concentrated electrolyte solutions?. Electrochemical Science Advances, 0, , e2100058.	2.8	4
39	Predictive Characterization of SEI Formed on Graphite Negative Electrodes for Efficiently Designing Effective Electrolyte Solutions. ACS Applied Energy Materials, 2022, 5, 1085-1094.	5.1	4
40	Suppression of Manganese-ion Dissolution by SiO₂ Aerosol Addition from Spray Pyrolyzed Li₂MnO₃-LiMn_{1/3}Ni_{1/3}Co_{1/3}O₂. Electrochemistry, 2016, 84, 842-847.	1.4	3
41	Improved stability of highly concentrated LiBF4/fluorinated ethyl acetate-based electrolyte solutions with a co-solvent for LiNi0.8Co0.1Mn0.1O2 positive electrodes in lithium ion batteries. Journal of Applied Electrochemistry, 2021, 51, 1535.	2.9	3
42	Dilution Effects of Highly Concentrated LiBF₄/DMC with Fluorinated Esters on Charge/Dishcharge Properties of Ni-rich LiNi_{0.8}Co_{0.1}Mn_{0.1}O₂ Positive Electrode. Journal of the Electrochemical Society, 2020, 167, 040508.	2.9	2
43	Preparation and Charge/Discharge Characteristics of Carbon-modified Ramsdellite TiO₂ as a High Potential Anode. Electrochemistry, 2015, 83, 867-869.	1.4	1
44	Oxygen Diffusion and Dissolution Rates in Sulfonated Polyetheretherketone Copolymer Thin Film Electrolyte Formed on Pt Microelectrode. ECS Meeting Abstracts, 2014, , .	0.0	0