Kei Nishikawa

List of Publications by Year
in descending order

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47 papers	1,064 citations	471509 17 h-index	434195 31 g-index
48 all docs	48 docs citations	48 times ranked	1371 citing authors

#	Article	IF	Citations
1	In Situ Observation of Dendrite Growth of Electrodeposited Li Metal. Journal of the Electrochemical Society, 2010, 157, A1212.	2.9	123
2	Li dendrite growth and Li+ ionic mass transfer phenomenon. Journal of Electroanalytical Chemistry, 2011, 661, 84-89.	3.8	101
3	Optical observation of Li dendrite growth in ionic liquid. Electrochimica Acta, 2013, 100, 333-341.	5.2	85
4	Three-dimensionally ordered macroporous Niâ€“Sn anode for lithium batteries. Journal of Power Sources, 2009, 189, 726-729.	7.8	72
5	Measurement of concentration boundary layer thickness development during lithium electrodeposition onto a lithium metal cathode in propylene carbonate. Journal of Electroanalytical Chemistry, 2003, 559, 175-183.	3.8	47
6	Diffusivity Measurement of LiPF6, LiTFSI, LiBF4 in PC. ECS Transactions, 2008, 6, 1-14.	0.5	38
7	In-situ observation of one silicon particle during the first charging. Journal of Power Sources, 2013, 243, 630-634.	7.8	36
8	Measurement of Concentration Profiles during Electrodeposition of Li Metal from LiPF[sub 6]-PC Electrolyte Solution. Journal of the Electrochemical Society, 2007, 154, A943.	2.9	35
9	Degradation Analysis of LiNi_{0.8}Co_{0.15}Al_{0.05}O₂ for Cathode Material of Lithium-Ion Battery Using Single-Particle Measurement. ACS Applied Energy Materials, 2018, 1, 4536-4544.	5.1	31
10	Measurement of LiClO[sub 4] Diffusion Coefficient in Propylene Carbonate by Moirè•Pattern. Journal of the Electrochemical Society, 2006, 153, A830.	2.9	29
11	In-situ observation of volume expansion behavior of a silicon particle in various electrolytes. Journal of Power Sources, 2016, 302, 46-52.	7.8	27
12	Effect of Frequency-Dependent Fresnel Factor on the Vibrational Sum Frequency Generation Spectra for Liquid/Solid Interfaces. Journal of Physical Chemistry C, 2019, 123, 15665-15673.	3.1	25
13	Numerical simulation of transient natural convection induced by electrochemical reactions confined between vertical plane Cu electrodes. Electrochimica Acta, 2007, 53, 257-264.	5.2	24
14	Holographic interferometric microscopy for measuring Cu2+ concentration profile during Cu electrodeposition in a magnetic field. Electrochimica Acta, 2019, 297, 1104-1108.	5.2	22
15	Ionic mass transfer during electrochemical dissolution of Li metal in PC electrolyte solution. Journal of Electroanalytical Chemistry, 2005, 584, 63-69.	3.8	20
16	Flux growth of hexagonal cylindrical LiCoO₂crystals surrounded by Li-ion conducting preferential facets and their electrochemical properties studied by single-particle measurements. Journal of Materials Chemistry A, 2015, 3, 17016-17021.	10.3	20
17	Intrinsic electrochemical characteristics of one LiNi0.5Mn1.5O4 spinel particle. Journal of Electroanalytical Chemistry, 2017, 799, 468-472.	3.8	20
18	Conversion Reaction in the Binder-Free Anode for Fast-Charging Li-Ion Batteries Based on WO₃ Nanorods. ACS Applied Energy Materials, 2020, 3, 6700-6708.	5.1	20

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19	Analysis of the Li Distribution in Si-Based Negative Electrodes for Lithium-Ion Batteries by Soft X-ray Emission Spectroscopy. ACS Applied Energy Materials, 2020, 3, 8619-8626.	5.1	18
20	Transient natural convection induced by electrodeposition of Li + ions onto a lithium metal vertical cathode in propylene carbonate. Journal of Solid State Electrochemistry, 2004, 8, 174-181.	2.5	17
21	In situ measurement of lithium mass transfer during charging and discharging of a Niâ€“Sn alloy electrode. Journal of Power Sources, 2007, 174, 668-672.	7.8	16
22	Surface State Change of Lithium Metal Anode in Full Cell during Long Term Cycles. Electrochemistry, 2019, 87, 84-88.	1.4	15
23	Characterization of Electrodeposited Li Metal by Cryo-Scanning Transmission Electron Microscopy/Electron Energy Loss Spectroscopy. Journal of Physical Chemistry Letters, 2021, 12, 3922-3927.	4.6	15
24	Lithiation/Delithiation Properties of Lithium Silicide Electrodes in Ionic-Liquid Electrolytes. ACS Applied Materials & Interfaces, 2021, 13, 3816-3824.	8.0	15
25	Morphological Variation of Electrodeposited Li in Ionic Liquid. ECS Transactions, 2012, 41, 3-10.	0.5	14
26	Evolution of the Morphology of Electrodeposited Copper at the Early Stage of Dendritic Growth. Journal of the Electrochemical Society, 2013, 160, D183-D187.	2.9	13
27	Deterioration Analysis of Lithium Metal Anode in Full Cell during Long-Term Cycles. Journal of the Electrochemical Society, 2019, 166, A2618-A2628.	2.9	13
28	Asymmetry in the Solvationâ€“Desolvation Resistance for Li Metal Batteries. Analytical Chemistry, 2020, 92, 3499-3502.	6.5	13
29	Reaction Behavior of a Silicide Electrode with Lithium in an Ionic-Liquid Electrolyte. ACS Omega, 2020, 5, 22631-22636.	3.5	12
30	Effects of Phase Change and Cu Doping on the Li Storage Properties of Rutile TiO₂. Electrochemistry, 2022, 90, 037002-037002.	1.4	12
31	Electrodeposition of metals in microgravity conditions. Electrochimica Acta, 2013, 100, 342-349.	5.2	11
32	Electrochemical Lithiation and Delithiation Properties of FeSi₂/Si Composite Electrodes in Ionic-Liquid Electrolytes. Electrochemistry, 2020, 88, 548-554.	1.4	10
33	In situ concentration measurements around the transition between two dendritic growth regimes. Electrochimica Acta, 2011, 56, 5464-5471.	5.2	9
34	In situ interferometry study of ionic mass transfer phenomenon during the electrodeposition and dissolution of Li metal in solvate ionic liquids. Journal of Materials Chemistry A, 2021, 9, 14700-14709.	10.3	9
35	Measurement of concentration profile during charging of Li battery anode materials in LiClO4-PC electrolyte. Electrochimica Acta, 2007, 53, 218-223.	5.2	8
36	Intrinsic Electrochemical Characteristics in the Individual Needle-like LiCoO₂ Crystals Synthesized by Flux Growth. Electrochemistry, 2017, 85, 72-76.	1.4	8

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37	3D Structural Transition of the Electrodeposited and Electrochemically Dissolved Li Metal onto an Ultramicroelectrode. Journal of Physical Chemistry C, 2020, 124, 22019-22024.	3.1	8
38	Metallographic Structure Changes in Lanthanum Silicide/Silicon Nanocomposite Electrodes during Lithiation and Delithiation: Implications for Battery Applications. ACS Applied Nano Materials, 2021, 4, 8473-8481.	5.0	8
39	Electrodeposition of Zn from 1â€‘allylâ€‘3â€‘methylimidazolium bromide containing ZnBr2. Journal of Electroanalytical Chemistry, 2019, 832, 467-474.	3.8	7
40	Precise Analysis of Resistance Components and Estimation of Number of Particles in Li-Ion Battery Electrode Sheets Using LiCoO₂ Single-Particle Electrochemical Properties. Journal of Physical Chemistry C, 2020, 124, 16758-16762.	3.1	7
41	Macroporous Mn3O4 microspheres as a conversion-type anode material morphology for Li-ion batteries. Journal of Solid State Electrochemistry, 2020, 24, 1283-1290.	2.5	7
42	In Situ Measurement of Al³⁺ Concentration Profile during Al Anodization using Digital Holographic Interferometric Microscope. Journal of the Electrochemical Society, 2020, 167, 062501.	2.9	7
43	Electrodeposition experiments in microgravity conditions. Journal of Physics: Conference Series, 2011, 327, 012045.	0.4	5
44	In Situ Observation of Cu²⁺ Concentration Profile During Cu Dissolution in Magnetic Field. Journal of the Electrochemical Society, 2021, 168, 031507.	2.9	5
45	Effects of Carbonate Solvents and Lithium Salts in High-Concentration Electrolytes on Lithium Anode. Journal of the Electrochemical Society, 2022, 169, 060548.	2.9	5
46	Numerical Analysis of Ionic Mass Transfer Phenomena Accompanying Electrochemical Reactions in PC and Ionic Liquid. Electrochemistry, 2009, 77, 601-603.	1.4	2
47	Improvement of Preparation Scheme for Microelectrode and Single Particle Electrochemical Measurements of LiCoO2 Interfaces Under Absence / Presence Chemical Additives. ECS Meeting Abstracts, 2021, MA2021-01, 22-22.	0.0	0