Eiji Hosono

List of Publications by Year
in descending order

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120 papers	13,890 citations	38660 50 h-index	19690 117 g-index
125 all docs	125 docs citations	125 times ranked	17033 citing authors

#	Article	IF	Citations
1	Large Reversible Li Storage of Graphene Nanosheet Families for Use in Rechargeable Lithium Ion Batteries. Nano Letters, 2008, 8, 2277-2282.	4.5	2,694
2	Pseudocapacitance of MXene nanosheets for high-power sodium-ion hybrid capacitors. Nature Communications, 2015, 6, 6544.	5.8	873
3	The Design of a LiFePO₄/Carbon Nanocomposite With a Coreâ€“Shell Structure and Its Synthesis by an Inâ€…Situ Polymerization Restriction Method. Angewandte Chemie - International Edition, 2008, 47, 7461-7465.	7.2	816
4	Nanosize Effect on High-Rate Li-Ion Intercalation in LiCoO2Electrode. Journal of the American Chemical Society, 2007, 129, 7444-7452.	6.6	690
5	Synthesis of Single Crystalline Spinel LiMn₂O₄ Nanowires for a Lithium Ion Battery with High Power Density. Nano Letters, 2009, 9, 1045-1051.	4.5	493
6	Nano active materials for lithium-ion batteries. Nanoscale, 2010, 2, 1294.	2.8	492
7	Nanomaterials for lithium ion batteries. Nano Today, 2006, 1, 28-33.	6.2	470
8	Superhydrophobic Perpendicular Nanopin Film by the Bottom-Up Process. Journal of the American Chemical Society, 2005, 127, 13458-13459.	6.6	401
9	Growth of Submicrometer-Scale Rectangular Parallelepiped Rutile TiO2 Films in Aqueous TiCl3 Solutions under Hydrothermal Conditions. Journal of the American Chemical Society, 2004, 126, 7790-7791.	6.6	396
10	The Fabrication of an Upright-Standing Zinc Oxide Nanosheet for Use in Dye-Sensitized Solar Cells. Advanced Materials, 2005, 17, 2091-2094.	11.1	342
11	Aromatic porous-honeycomb electrodes for a sodium-organic energy storage device. Nature Communications, 2013, 4, 1485.	5.8	327
12	Mesoporous Carbon Nanofibers for Supercapacitor Application. Journal of Physical Chemistry C, 2009, 113, 1093-1097.	1.5	196
13	Fast Li-Ion Insertion into Nanosized LiMn₂O₄ without Domain Boundaries. ACS Nano, 2010, 4, 741-752.	7.3	194
14	Enhanced photoelectrochemical performance of ZnO electrodes sensitized with N-719. Journal of Photochemistry and Photobiology A: Chemistry, 2006, 179, 81-86.	2.0	192
15	An Energy Storage Principle using Bipolar Porous Polymeric Frameworks. Angewandte Chemie - International Edition, 2012, 51, 7850-7854.	7.2	177
16	Growth of layered basic zinc acetate in methanolic solutions and its pyrolytic transformation into porous zinc oxide films. Journal of Colloid and Interface Science, 2004, 272, 391-398.	5.0	172
17	Hydrothermal Routes To Prepare Nanocrystalline Mesoporous SnO2Having High Thermal Stability. Langmuir, 2004, 20, 6476-6481.	1.6	171
18	High-surface vanadium oxides with large capacities for lithium-ion batteries: from hydrated aerogel to nanocrystalline VO2(B), V6O13 and V2O5. Journal of Materials Chemistry, 2011, 21, 10999.	6.7	166

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19	High power Na-ion rechargeable battery with single-crystalline Na0.44MnO2 nanowire electrode. Journal of Power Sources, 2012, 217, 43-46.	4.0	158
20	Electrochemical Mg2+ intercalation into a bimetallic CuFe Prussian blue analog in aqueous electrolytes. Journal of Materials Chemistry A, 2013, 1, 13055.	5.2	151
21	Suppressed Activation Energy for Interfacial Charge Transfer of a Prussian Blue Analog Thin Film Electrode with Hydrated Ions (Li⁺, Na⁺, and Mg²⁺). Journal of Physical Chemistry C, 2013, 117, 10877-10882.	1.5	150
22	Synthesis of the CoOOH fine nanoflake film with the high rate capacitance property. Journal of Power Sources, 2006, 158, 779-783.	4.0	147
23	Electrochemical kinetics of the 0.5Li2MnO3Â·0.5LiMn0.42Ni0.42Co0.16O2 â€˜compositeâ€™ layered cathode material for lithium-ion batteries. RSC Advances, 2012, 2, 8797.	1.7	141
24	Facile synthesis of NaV6O15 nanorods and its electrochemical behavior as cathode material in rechargeable lithium batteries. Journal of Materials Chemistry, 2009, 19, 7885.	6.7	136
25	Fabrication of morphology and crystal structure controlled nanorod and nanosheet cobalt hydroxide based on the difference of oxygen-solubility between water and methanol, and conversion into Co3O4. Journal of Materials Chemistry, 2005, 15, 1938.	6.7	134
26	Non-Basic Solution Routes to Prepare ZnO Nanoparticles. Journal of Sol-Gel Science and Technology, 2004, 29, 71-79.	1.1	130
27	Design and synthesis of a novel nanothorn VO2(B) hollow microsphere and their application in lithium-ion batteries. Journal of Materials Chemistry, 2009, 19, 2835.	6.7	125
28	Synthesis of Triaxial LiFePO₄ Nanowire with a VGCF Core Column and a Carbon Shell through the Electrospinning Method. ACS Applied Materials & Interfaces, 2010, 2, 212-218.	4.0	121
29	Synthesis of a Perpendicular TiO2 Nanosheet Film with the Superhydrophilic Property without UV Irradiation. Langmuir, 2007, 23, 7447-7450.	1.6	118
30	Fabrication of mesoporous ZnO nanosheets from precursor templates grown in aqueous solutions. Journal of Sol-Gel Science and Technology, 2006, 39, 63-72.	1.1	115
31	One-Step Synthesis of Nanoâ€“Micro Chestnut TiO₂ with Rutile Nanopins on the Microanatase Octahedron. ACS Nano, 2007, 1, 273-278.	7.3	112
32	Synthesis, structure and photoelectrochemical performance of micro/nano-textured ZnO/eosin Y electrodes. Electrochimica Acta, 2004, 49, 2287-2293.	2.6	107
33	Liquidâ€Crystalline Electrolytes for Lithiumâ€Ion Batteries: Ordered Assemblies of a Mesogenâ€Containing Carbonate and a Lithium Salt. Advanced Functional Materials, 2015, 25, 1206-1212.	7.8	104
34	Single-crystal H₂V₃O₈nanowires: a competitive anode with large capacity for aqueous lithium-ion batteries. Journal of Materials Chemistry, 2011, 21, 1780-1787.	6.7	100
35	Evolution of Nanoscale SnO2Grains, Flakes, and Plates into Versatile Particles and Films through Crystal Growth in Aqueous Solutions. Crystal Growth and Design, 2005, 5, 1079-1083.	1.4	96
36	{111}-faceting of low-temperature processed rutile TiO2 rods. Journal of Crystal Growth, 2006, 293, 541-545.	0.7	95

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37	Redox Potential Paradox in Na_xMO₂ for Sodium-Ion Battery Cathodes. Chemistry of Materials, 2016, 28, 1058-1065.	3.2	93
38	A nanoscale meshed electrode of single-crystalline SnO for lithium-ion rechargeable batteries. Electrochemistry Communications, 2008, 10, 52-55.	2.3	90
39	Synthesis of single crystalline electro-conductive Na0.44MnO2 nanowires with high aspect ratio for the fast chargeâ€“discharge Li ion battery. Journal of Power Sources, 2008, 182, 349-352.	4.0	78
40	Synthesis and Applications of SnO Nanosheets: Parallel Control of Oxidation State and Nanostructure Through an Aqueous Solution Route. Small, 2010, 6, 776-781.	5.2	78
41	Assembly of Na₃V₂(PO₄)₃ Nanoparticles Confined in a Oneâ€Dimensional Carbon Sheath for Enhanced Sodiumâ€Ion Cathode Properties. Chemistry - A European Journal, 2014, 20, 12636-12640.	1.7	72
42	Bipolar porous polymeric frameworks for low-cost, high-power, long-life all-organic energy storage devices. Journal of Power Sources, 2014, 245, 553-556.	4.0	66
43	Biomimetic Solidâ€Solution Precursors of Metal Carbonate for Nanostructured Metal Oxides: MnO/Co and MnOâ€CoO Nanostructures and Their Electrochemical Properties. Advanced Functional Materials, 2011, 21, 3673-3680.	7.8	64
44	Impedance spectroscopic study on interfacial ion transfers in cyanide-bridged coordination polymer electrode with organic electrolyte. Electrochimica Acta, 2012, 63, 139-145.	2.6	64
45	In Situ TEM Observation of Local Phase Transformation in a Rechargeable LiMn2O4 Nanowire Battery. Journal of Physical Chemistry C, 2013, 117, 24236-24241.	1.5	64
46	The high power and high energy densities Li ion storage device by nanocrystalline and mesoporous Ni/NiO covered structure. Electrochemistry Communications, 2006, 8, 284-288.	2.3	63
47	Fabrication of Porous Cubic Architecture of ZnO Using Zn-terephthalate MOFs with Characteristic Microstructures. Inorganic Chemistry, 2013, 52, 14028-14033.	1.9	59
48	TiO2- and ZnO-based solar cells using a chlorophyll a derivative sensitizer for light-harvesting and energy conversion. Journal of Photochemistry and Photobiology A: Chemistry, 2010, 210, 145-152.	2.0	54
49	Synthesis of Nanocrystalline Li[sub 4]Ti[sub 5]O[sub 12] by Chemical Lithiation of Anatase Nanocrystals and Postannealing. Journal of the Electrochemical Society, 2008, 155, A553.	1.3	53
50	Size effect on electrochemical property of nanocrystalline LiCoO2 synthesized from rapid thermal annealing method. Solid State Ionics, 2009, 180, 612-615.	1.3	51
51	Electrospinning Synthesis of Wire-Structured LiCoO₂ for Electrode Materials of High-Power Li-Ion Batteries. Journal of Physical Chemistry C, 2012, 116, 10774-10780.	1.5	51
52	Fabrication of Nano/Micro Hierarchical Fe[sub 2]O[sub 3]âˆ•Ni Micrometer-Wire Structure and Characteristics for High Rate Li Rechargeable Battery. Journal of the Electrochemical Society, 2006, 153, A1273.	1.3	50
53	Three-dimensional architectures of spinel-type LiMn2O4 prepared from biomimetic porous carbonates and their application to a cathode for lithium-ion batteries. Journal of Materials Chemistry, 2009, 19, 4012.	6.7	50
54	Lowâ€Temperature Synthesis of Nanocrystalline Zinc Titanate Materials with High Specific Surface Area. Journal of the American Ceramic Society, 2004, 87, 1785-1788.	1.9	49

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55	Material/element-dependent fluorescence-yield modes on soft X-ray absorption spectroscopy of cathode materials for Li-ion batteries. AIP Advances, 2016, 6, .	0.6	48
56	Surface-enhanced infrared absorption spectroscopy using chemically deposited Pd thin film electrodes. Chemical Physics Letters, 2006, 428, 451-456.	1.2	47
57	Preparation of bioplastic using soy protein. International Journal of Biological Macromolecules, 2020, 149, 1077-1083.	3.6	46
58	Fabrication and electrical properties of micro/nanoporous ZnO ? Al films. Journal of Materials Chemistry, 2004, 14, 881.	6.7	45
59	Phase Transitions in a LiMn₂O₄ Nanowire Battery Observed by Operando Electron Microscopy. ACS Nano, 2015, 9, 626-632.	7.3	45
60	Synthesis of Liâ€“Mnâ€“O mesocrystals with controlled crystal phases through topotactic transformation of MnCO3. Nanoscale, 2013, 5, 2352.	2.8	43
61	Chemical Deposition of Rodlike GaOOH and Î²-Ga[sub 2]O[sub 3] Films Using Simple Aqueous Solutions. Journal of the Electrochemical Society, 2005, 152, C764.	1.3	42
62	Metal-free organic dye sensitized solar cell based on perpendicular zinc oxide nanosheet thick films with high conversion efficiency. Dalton Transactions, 2008, , 5439.	1.6	42
63	Aqueous solution synthesis of SnO nanostructures with tuned optical absorption behavior and photoelectrochemical properties through morphological evolution. Nanoscale, 2010, 2, 2424.	2.8	40
64	Synthesis of LiNi0.5Mn1.5O4 and 0.5Li2MnO3â€“0.5LiNi1/3Co1/3Mn1/3O2 hollow nanowires by electrospinning. CrystEngComm, 2013, 15, 2592.	1.3	39
65	Reversible Solid State Redox of an Octacyanometallate-Bridged Coordination Polymer by Electrochemical Ion Insertion/Extraction. Inorganic Chemistry, 2013, 52, 3772-3779.	1.9	32
66	Charge/discharge mechanism of a new Co-doped Li 2 O cathode material for a rechargeable sealed lithium-peroxide battery analyzed by X-ray absorption spectroscopy. Journal of Power Sources, 2015, 287, 220-225.	4.0	31
67	Operando soft x-ray emission spectroscopy of LiMn2O4 thin film involving Liâ€“ion extraction/insertion reaction. Electrochemistry Communications, 2015, 50, 93-96.	2.3	29
68	Noncovalent Approach to Liquid-Crystalline Ion Conductors: High-Rate Performances and Room-Temperature Operation for Li-Ion Batteries. ACS Omega, 2018, 3, 159-166.	1.6	29
69	Nanostructured liquid-crystalline Li-ion conductors with high oxidation resistance: molecular design strategy towards safe and high-voltage-operation Li-ion batteries. Chemical Science, 2020, 11, 10631-10637.	3.7	29
70	Reversible contrast in focus series of annular bright field images of a crystalline LiMn2O4 nanowire. Ultramicroscopy, 2013, 125, 43-48.	0.8	28
71	Fabrication of Nanoparticulate Porous LaOF Films through Film Growth and Thermal Decomposition of Ion-Modified Lanthanum Diacetate Hydroxide. Langmuir, 2004, 20, 3769-3774.	1.6	27
72	High-Rate Lithium Ion Batteries with Flat Plateau Based on Self-Nanoporous Structure of Tin Electrode. Journal of the Electrochemical Society, 2007, 154, A146.	1.3	27

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73	Electrochemical properties of LiMnxFe1â^'xPO4 (xÂ=Â0, 0.2, 0.4, 0.6, 0.8 and 1.0)/vapor grown carbon fiber coreâ€"sheath composite nanowire synthesized by electrospinning method. Journal of Power Sources, 2014, 248, 615-620.	4.0	27
74	Size-controlled synthesis of ZIF-8 particles and their pyrolytic conversion into ZnO aggregates as photoanode materials of dye-sensitized solar cells. CrystEngComm, 2017, 19, 2844-2851.	1.3	27
75	Bio-inspired synthesis of xLi2MnO3-(1 â^' x)LiNi0.33Co0.33Mn0.33O2 lithium-rich layered cathode materials. Materials and Design, 2016, 109, 718-725.	3.3	24
76	Lithium insertion into nanometer-sized rutile-type TixSn1â^'xO2 solid solutions. Solid State Ionics, 2009, 180, 956-960.	1.3	22
77	Crystal-Growth Process of Single-Crystal-like Mesoporous ZnO through a Competitive Reaction in Solution. Crystal Growth and Design, 2012, 12, 2923-2931.	1.4	22
78	Synthesis of single crystalline Li0.44MnO2 nanowires with large specific capacity and good high current density property for a positive electrode of Li ion battery. Journal of Power Sources, 2010, 195, 7098-7101.	4.0	19
79	Fabrication of Porous Metal Oxide Semiconductor Films by a Self-Template Method Using Layered Hydroxide Metal Acetates. Journal of Sol-Gel Science and Technology, 2004, 31, 165-168.	1.1	18
80	An ultrafast process for the fabrication of a Li metalâ€"inorganic solid electrolyte interface. Energy and Environmental Science, 2021, 14, 4474-4480.	15.6	18
81	Low-Temperature Deposition of Nanocrystalline ZnO Phosphor Films from Neutral Ethanolic Zinc Acetate Solutions in the Absence of Base. Electrochemical and Solid-State Letters, 2004, 7, C49.	2.2	17
82	Fabrication of MnOOH nanorods on a substrate in an oxygen bubbled solution with superhydrophobic properties. Nanotechnology, 2008, 19, 395605.	1.3	16
83	Microscopic photoelectron analysis of single crystalline LiCoO2 particles during the charge-discharge in an all solid-state lithium ion battery. Scientific Reports, 2019, 9, 12452.	1.6	14
84	Large Chargeâ€Transfer Energy in LiFePO₄ Revealed by Fullâ€Multiplet Calculation for the Fe L₃â€edge Soft Xâ€ray Emission Spectra. ChemPhysChem, 2018, 19, 988-992.	1.0	13
85	Phonon confinement effect on nanocrystalline LiCoO2 studied with Raman spectroscopy. Journal of Physics and Chemistry of Solids, 2008, 69, 2911-2915.	1.9	12
86	Biomimetic Synthesis of Metal Ionâ€Doped Hierarchical Crystals Using a Gel Matrix: Formation of Cobaltâ€Doped LiMn₂O₄with Improved Electrochemical Properties through a Cobaltâ€Doped MnCO₃Precursor. Chemistry - an Asian Journal, 2010, 5, 792-798.	1.7	12
87	Formation of Nanostructured MnO/Co/Solidâ€"Electrolyte Interphase Ternary Composites as a Durable Anode Material for Lithiumâ€Ion Batteries. Chemistry - an Asian Journal, 2013, 8, 760-764.	1.7	12
88	Fabrication of Transparent ZnO Thick Film with Unusual Orientation by the Chemical Bath Deposition. Crystal Growth and Design, 2015, 15, 3150-3156.	1.4	12
89	Fabrication of highly porous and micropatterned SnO2 films by oxygen bubbles generated on the anode electrode. Chemical Communications, 2005, , 2609.	2.2	11
90	Atomic and Electronic Structures of Li_{0.44}MnO₂ Nanowires and Li₂MnO₃ Byproducts in the Formation Process of LiMn₂O₄ Nanowires. Journal of Physical Chemistry C, 2010, 114, 18358-18365.	1.5	11

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91	Mn 2p resonant X-ray emission clarifies the redox reaction and charge-transfer effects in LiMn₂O₄. Physical Chemistry Chemical Physics, 2019, 21, 18363-18369.	1.3	11
92	Fabrication and photoluminescence of chemically stable La2O3:Eu3+â€“La2Sn2O7coreâ€“shell-structured nanoparticles. Chemical Communications, 2004, , 2062-2063.	2.2	10
93	VGCF-core@LiMn0.4Fe0.6PO4-sheath heterostructure nanowire for high rate Li-ion batteries. CrystEngComm, 2013, 15, 6638.	1.3	10
94	Investigation of the relationship between the cycle performance and the electronic structure in LiAlxMn2â^'xO4 (x = 0 and 0.2) using soft X-ray spectroscopy. Physical Chemistry Chemical Physics, 2017, 19, 16507-16511.	1.3	10
95	Single Crystallization of Olivine Lithium Phosphate Nanowires using Oriented Attachments. Journal of Physical Chemistry C, 2014, 118, 7678-7682.	1.5	9
96	Operando measurement of single crystalline Li4Ti5O12 with octahedral-like morphology by microscopic X-ray photoelectron spectroscopy. Journal of Electron Spectroscopy and Related Phenomena, 2019, 233, 64-68.	0.8	9
97	Operando soft X-ray emission spectroscopy of the Fe₂O₃ anode to observe the conversion reaction. Physical Chemistry Chemical Physics, 2019, 21, 26351-26357.	1.3	9
98	Impact of Calendar Degradation on the Performance of LiFePO4 â€“ Graphite Li-Ion Cells during Charge-Discharge Cycling at â^'5Â°C. Journal of the Electrochemical Society, 2019, 166, A3525-A3530.	1.3	8
99	Fabrication of Nanocrystalline ZnO Thick Films for Solar Cells. Key Engineering Materials, 2001, 216, 69-72.	0.4	7
100	Superhydrophobic property of the perpendicular nanosheet film by hot water treatment of the metal aluminum. Journal of the Ceramic Society of Japan, 2009, 117, 299-301.	0.5	7
101	Correlation between the Oâ€‰2p Orbital and Redox Reaction in LiMn_{0.6}Fe_{0.4}PO₄ Nanowires Studied by Soft Xâ€ray Absorption. ChemPhysChem, 2016, 17, 4110-4115.	1.0	7
102	Constant-rate heating-induced thermal runaway in 18650-type Li-ion cells charged/discharged at 1ÂÂ°C: Effect of undischargeable Li at anode. Journal of Power Sources, 2021, 505, 230082.	4.0	7
103	ZnO nano-rectangular framework-like structure from zinc hydroxide acetate plates. Journal of the Ceramic Society of Japan, 2012, 120, 171-174.	0.5	6
104	Chemical bath deposition of transparent ZnO films incorporated with erythrosine B molecules and their synergetic electro/photochromic properties. CrystEngComm, 2020, 22, 2447-2453.	1.3	6
105	Effect of the Charge Process on the Performance of Li-ion Cells during Charge-Discharge Cycling at 0Â°C. Electrochemistry, 2020, 88, 230-235.	0.6	6
106	In-situ STEM Observation of Strain Field Movement in a LiMn2O4 Nanowire Battery. Microscopy and Microanalysis, 2015, 21, 953-954.	0.2	3
107	Preparation of DNA-immobilized magnetic particles and their utilization as an accumulative material of metal ions. Journal of Materials Research, 2016, 31, 360-369.	1.2	3
108	Effect of the Charge Process and Discharge Rate on the Lithium Stripping Process Visibility in LiFePO₄-Graphite Li-ion Cells during Charge-Discharge Cycling at 0Â°C. Electrochemistry, 2020, 88, 340-342.	0.6	3

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109	Development of nanostructure control process in the solution for application to energy and environmental fields. Journal of the Ceramic Society of Japan, 2012, 120, 47-51.	0.5	2
110	Fabrication of transparent conductive zinc oxide films by chemical bath deposition using solutions containing Zn²⁺ and Al³⁺ ions. Journal of the Ceramic Society of Japan, 2015, 123, 329-334.	0.5	2
111	Liquid Crystals: Liquid-Crystalline Electrolytes for Lithium-Ion Batteries: Ordered Assemblies of a Mesogen-Containing Carbonate and a Lithium Salt (Adv. Funct. Mater. 8/2015). Advanced Functional Materials, 2015, 25, 1205-1205.	7.8	2
112	Synthesis of core-sheath structured fibers of SnO₂/carbon composites by electrospinning. Journal of the Ceramic Society of Japan, 2018, 126, 662-666.	0.5	2
113	2ï¼Žè»ŸXç·šåˆ†å…‰ã«ã‚ˆã‚‹Operandoé»»å¢Šæ…‹è§£æž. Electrochemistry, 2016, 84, 529-533.	0.6	2
114	Operando resonant soft X-ray emission spectroscopy of the LiMn₂O₄ cathode using an aqueous electrolyte solution. Physical Chemistry Chemical Physics, 2022, 24, 19177-19183.	1.3	2
115	Synthesis and Electrical Properties of Garnet-type Solid Oxide Electrolyte Thin Films from Solution Route. Materials Research Society Symposia Proceedings, 2013, 1496, 1.	0.1	1
116	Kinetic analysis of graphitized-carbon reactions in Li-ion cells before and after cycling degradation. Solid State Ionics, 2018, 321, 98-105.	1.3	1
117	Fabrication and Photoluminescence of Chemically Stable La2O3:Eu3+?La2Sn2O7 Core?Shell-Structured Nanoparticles.. ChemInform, 2005, 36, no.	0.1	0
118	Development of Positive Electrode Materials for the High Rate Lithium Ion Battery by Nanostructure Control. Key Engineering Materials, 2010, 445, 109-112.	0.4	0
119	Operando Soft X-ray Emission Studies of Lithium-Ion Batteries. Hyomen Kagaku, 2016, 37, 66-71.	0.0	0
120	Conversion Reaction of Anode Material for Li-ion Battery Revealed by <i>Operando</i> Soft X-ray Emission Spectroscopy. Denki Kagaku, 2022, 90, 4-9.	0.0	0