Eungje Lee

List of Publications by Year
in descending order

56 papers	6,351 citations	218592 26 h-index	143943 57 g-index
60 all docs	60 docs citations	60 times ranked	8180 citing authors

#	Article	IF	Citations
1	Reviewâ€"From LiMn₂O₄ to Partially-Disordered Li₂MnNiO₄: The Evolution of Lithiated-Spinel Cathodes for Li-Ion Batteries. Journal of the Electrochemical Society, 2022, 169, 020535.	1.3	14
2	Effect of Electrolytes on the Cathode-Electrolyte Interfacial Stability of Fe-Based Layered Cathodes for Sodium-Ion Batteries. Journal of the Electrochemical Society, 2022, 169, 030536.	1.3	10
3	Multiphase layered transition metal oxide positive electrodes for sodium ion batteries. Energy Science and Engineering, 2022, 10, 1672-1705.	1.9	20
4	Garnet solid electrolyte blended LiNi0.6Mn0.2Co0.2O2 as high-voltage stable cathodes for advanced lithium-ion batteries. Electrochemistry Communications, 2022, 138, 107286.	2.3	2
5	3D Ionâ€Conducting, Scalable, and Mechanically Reinforced Ceramic Film for High Voltage Solidâ€State Batteries. Advanced Functional Materials, 2021, 31, 2002008.	7.8	13
6	New Highâ€Performance Pbâ€Based Nanocomposite Anode Enabled by Wideâ€Range Pb Redox and Zintl Phase Transition. Advanced Functional Materials, 2021, 31, 2005362.	7.8	6
7	Deciphering the Oxygen Absorption Preâ€edge: A Caveat on its Application for Probing Oxygen Redox Reactions in Batteries. Energy and Environmental Materials, 2021, 4, 246-254.	7.3	56
8	Process Engineering to Increase the Layered Phase Concentration in the Immediate Products of Flame Spray Pyrolysis. ACS Applied Materials & Interfaces, 2021, 13, 26915-26923.	4.0	11
9	Relationship of Chemical Composition and Moisture Sensitivity in LiNi<i>x</i>Mn<i>y</i>Co1â^'<i>X</i>â^'<i>Y</i>O2 for Lithium-Ion Batteries. Journal of Electrochemical Energy Conversion and Storage, 2021, 18, .	1.1	4
10	Role of Lithium Doping in P2-Na_{0.67}Ni_{0.33}Mn_{0.67}O₂ for Sodium-Ion Batteries. Chemistry of Materials, 2021, 33, 4445-4455.	3.2	56
11	LT-LiMn_{0.5}Ni_{0.5}O₂: a unique co-free cathode for high energy Li-ion cells. Chemical Communications, 2021, 57, 11009-11012.	2.2	8
12	Understanding the constant-voltage fast-charging process using a high-rate Ni-rich cathode material for lithium-ion batteries. Journal of Materials Chemistry A, 2021, 10, 288-295.	5.2	10
13	An epoxy-reinforced ceramic sheet as a durable solid electrolyte for solid state Na-ion batteries. Journal of Materials Chemistry A, 2020, 8, 14528-14537.	5.2	23
14	Origins of Irreversibility in Layered NaNi_{<i>x</i>}Fe_{<i>y</i>}Mn_{<i>z</i>}O₂ Cathode Materials for Sodium Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 51397-51408.	4.0	18
15	Synthesis, modular composition, and electrochemical properties of lamellar iron sulfides. Journal of Materials Chemistry A, 2020, 8, 15834-15844.	5.2	10
16	Effect of temperature on silicon-based anodes for lithium-ion batteries. Journal of Power Sources, 2019, 441, 227080.	4.0	23
17	Lithiated Spinel LiCo_{1â€"<i>x</i>}Al_{<i>x</i>}O₂ as a Stable Zero-Strain Cathode. ACS Applied Energy Materials, 2019, 2, 6170-6175.	2.5	17
18	Extreme Fast Charge Challenges for Lithium-Ion Battery: Variability and Positive Electrode Issues. Journal of the Electrochemical Society, 2019, 166, A1926-A1938.	1.3	92

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19	Development of manganese-rich cathodes as alternatives to nickel-rich chemistries. Journal of Power Sources, 2019, 434, 226706.	4.0	23
20	Probing Electrochemically Induced Structural Evolution and Oxygen Redox Reactions in Layered Lithium Iridate. Chemistry of Materials, 2019, 31, 4341-4352.	3.2	26
21	Dynamic imaging of crystalline defects in lithium-manganese oxide electrodes during electrochemical activation to high voltage. Nature Communications, 2019, 10, 1692.	5.8	68
22	Photo-accelerated fast charging of lithium-ion batteries. Nature Communications, 2019, 10, 4946.	5.8	68
23	Identifying the Chemical Origin of Oxygen Redox Activity in Li-Rich Anti-Fluorite Lithium Iron Oxide by Experimental and Theoretical X-ray Absorption Spectroscopy. Journal of Physical Chemistry Letters, 2019, 10, 806-812.	2.1	17
24	Effect of overcharge on Li(Ni0.5Mn0.3Co0.2)O2 cathodes: NMP-soluble binder. II â€” Chemical changes in the anode. Journal of Power Sources, 2018, 385, 156-164.	4.0	18
25	First-Principles Study of Lithium Cobalt Spinel Oxides: Correlating Structure and Electrochemistry. ACS Applied Materials & Interfaces, 2018, 10, 13479-13490.	4.0	31
26	Effect of overcharge on Li(Ni0.5Mn0.3Co0.2)O2/graphite lithium ion cells with poly(vinylidene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 46	4.0	29
27	Design of lithium cobalt oxide electrodes with high thermal conductivity and electrochemical performance using carbon nanotubes and diamond particles. Carbon, 2018, 129, 702-710.	5.4	27
28	The quest for manganese-rich electrodes for lithium batteries: strategic design and electrochemical behavior. Sustainable Energy and Fuels, 2018, 2, 1375-1397.	2.5	59
29	Insights into the Dual-Electrode Characteristics of Layered Na_{0.5}Ni_{0.25}Mn_{0.75}O₂ Materials for Sodium-Ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 10618-10625.	4.0	38
30	Structural characterization of layered Na0.5Co0.5Mn0.5O2 material as a promising cathode for sodium-ion batteries. Journal of Power Sources, 2017, 363, 442-449.	4.0	31
31	Enabling the high capacity of lithium-rich anti-fluorite lithium iron oxide by simultaneous anionic and cationic redox. Nature Energy, 2017, 2, 963-971.	19.8	140
32	Exploring Lithium-Cobalt-Nickel Oxide Spinel Electrodes for â‰¥3.5 V Li-Ion Cells. ACS Applied Materials & Interfaces, 2016, 8, 27720-27729.	4.0	25
33	Role of Cr³⁺/Cr⁶⁺ redox in chromium-substituted Li₂MnO₃Â·LiNi_{1/2}Mn_{1/2}O₂ layered composite cathodes: electrochemistry and voltage fade. Journal of Materials Chemistry A, 2015, 3, 9915-9924.	5.2	35
34	Aluminum and Gallium Substitution into 0.5Li₂MnO₃Â·0.5Li(Ni_{0.375}Mn_{0.375}Co_{0.25})O₂ Layered Composite and the Voltage Fade Effect. Journal of the Electrochemical Society, 2015, 162, A322-A329.	1.3	44
35	New Insights into the Performance Degradation of Fe-Based Layered Oxides in Sodium-Ion Batteries: Instability of Fe³⁺/Fe⁴⁺ Redox in Î±-NaFeO₂. Chemistry of Materials, 2015, 27, 6755-6764.	3.2	162
36	Rechargeable Seawater Battery and Its Electrochemical Mechanism. ChemElectroChem, 2015, 2, 328-332.	1.7	85

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37	Comparative electrochemical sodium insertion/extraction behavior in layered NaxVS2 and NaxTiS2. Electrochimica Acta, 2014, 143, 272-277.	2.6	32
38	Electrodes: Layered P2/O3 Intergrowth Cathode: Toward High Power Na-Ion Batteries (Adv. Energy) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	10.2	5
39	SnSb Carbon Composite Anode in a SnSb_C/NaNi_{1/3}Mn_{1/3}Fe_{1/3}O₂ Na-Ion Battery. ECS Transactions, 2014, 58, 59-64.	0.3	8
40	Layered P2/O3 Intergrowth Cathode: Toward High Power Naâ€Ion Batteries. Advanced Energy Materials, 2014, 4, 1400458.	10.2	191
41	Spherical Carbon as a New High-Rate Anode for Sodium-ion Batteries. Electrochimica Acta, 2014, 127, 61-67.	2.6	135
42	Sodiumâ€Ion Batteries. Advanced Functional Materials, 2013, 23, 947-958.	7.8	3,832
43	Study of Thermal Decomposition of Li_{1â€x}(Ni_{1/3}Mn_{1/3}Co_{1/3})_{0.9}O₂ Using Inâ€Situ Highâ€Energy Xâ€Ray Diffraction. Advanced Energy Materials, 2013, 3, 729-736.	10.2	48
44	Composite â€˜Layered-Layered-Spinelâ€™ Cathode Structures for Lithium-Ion Batteries. Journal of the Electrochemical Society, 2013, 160, A31-A38.	1.3	115
45	Reversible NaVS2 (De)Intercalation Cathode for Na-Ion Batteries. ECS Electrochemistry Letters, 2012, 1, A71-A73.	1.9	15
46	Electrooxidation of methanol on highly active and stable Ptâ€“Snâ€“Ce/C catalyst for direct methanol fuel cells. Applied Catalysis B: Environmental, 2012, 121-122, 154-161.	10.8	20
47	Layered Na[Ni1/3Fe1/3Mn1/3]O2 cathodes for Na-ion battery application. Electrochemistry Communications, 2012, 18, 66-69.	2.3	384
48	Comparison of the stabilities and activities of Ptâ€“Ru/C and Pt3â€“Sn/C electrocatalysts synthesized by the polyol method for methanol electro-oxidation reaction. Journal of Electroanalytical Chemistry, 2011, 659, 168-175.	1.9	26
49	Effect of Mo addition on the electrocatalytic activity of Ptâ€“Snâ€“Mo/C for direct ethanol fuel cells. Electrochimica Acta, 2011, 56, 1611-1618.	2.6	57
50	Carbon-supported Pt nanoparticles prepared by a modified borohydride reduction method: Effect on the particle morphology and catalytic activity for COad and methanol electro-oxidation. Electrochemistry Communications, 2011, 13, 480-483.	2.3	21
51	â€˜Clickâ€™-functionalization of poly(sulfone)s and a study of their utilities as proton conductive membranes in direct methanol fuel cells. Polymer, 2010, 51, 5352-5358.	1.8	17
52	Synthesis and Characterization of Ptâ^'Snâ^'Pd/C Catalysts for Ethanol Electro-Oxidation Reaction. Journal of Physical Chemistry C, 2010, 114, 10634-10640.	1.5	44
53	Electrocatalytic Properties of Indium Tin Oxide-Supported Pt Nanoparticles for Methanol Electro-oxidation. Journal of the Electrochemical Society, 2010, 157, B251.	1.3	26
54	One-Step Reverse Microemulsion Synthesis of Ptâ^'CeO₂/C Catalysts with Improved Nanomorphology and Their Effect on Methanol Electrooxidation Reaction. Journal of Physical Chemistry C, 2010, 114, 21833-21839.	1.5	27

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55	Sr_4AlNbO_8: A new crystal structure type determined from powder X-ray data. Journal of Solid State Chemistry, 2008, 181, 2930-2934.	1.4	17
56	A new potential electrolyte $Ba_{11}W_4O_{23}$: Novel structure and electrical conductivity. Solid State Ionics, 2008, 179, 1066-1070.	1.3	11