

Kyungjung Kwon

List of Publications by Year in descending order

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77
papers

3,408
citations

159585

30
h-index

144013

57
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78
all docs

78
docs citations

78
times ranked

4731
citing authors

#	ARTICLE	IF	CITATIONS
1	Ordered mesoporous porphyrinic carbons with very high electrocatalytic activity for the oxygen reduction reaction. <i>Scientific Reports</i> , 2013, 3, 2715.	3.3	282
2	Ordered mesoporous Co ₃ O ₄ spinels as stable, bifunctional, noble metal-free oxygen electrocatalysts. <i>Journal of Materials Chemistry A</i> , 2013, 1, 9992.	10.3	275
3	Recycling of spent lithium-ion battery cathode materials by ammoniacal leaching. <i>Journal of Hazardous Materials</i> , 2016, 313, 138-146.	12.4	268
4	Aluminum Corrosion in Lithium Batteries An Investigation Using the Electrochemical Quartz Crystal Microbalance. <i>Journal of the Electrochemical Society</i> , 2000, 147, 4399.	2.9	210
5	A comprehensive review on the pretreatment process in lithium-ion battery recycling. <i>Journal of Cleaner Production</i> , 2021, 294, 126329.	9.3	149
6	Ordered Mesoporous Carbon Nitrides with Graphitic Frameworks as Metal-Free, Highly Durable, Methanol-Tolerant Oxygen Reduction Catalysts in an Acidic Medium. <i>Langmuir</i> , 2012, 28, 991-996.	3.5	138
7	Size-Dependent Activity Trends Combined with in Situ X-ray Absorption Spectroscopy Reveal Insights into Cobalt Oxide/Carbon Nanotube-Catalyzed Bifunctional Oxygen Electrocatalysis. <i>ACS Catalysis</i> , 2016, 6, 4347-4355.	11.2	125
8	Preparation of high loading Pt nanoparticles on ordered mesoporous carbon with a controlled Pt size and its effects on oxygen reduction and methanol oxidation reactions. <i>Electrochimica Acta</i> , 2009, 54, 5746-5753.	5.2	123
9	Application of Ionic Liquids in Hydrometallurgy. <i>International Journal of Molecular Sciences</i> , 2014, 15, 15320-15343.	4.1	116
10	Ordered mesoporous carbons with controlled particle sizes as catalyst supports for direct methanol fuel cell cathodes. <i>Carbon</i> , 2008, 46, 2034-2045.	10.3	100
11	Polyaniline/Polyoxometalate Hybrid Nanofibers as Cathode for Lithium Ion Batteries with Improved Lithium Storage Capacity. <i>Journal of Physical Chemistry C</i> , 2013, 117, 17376-17381.	3.1	86
12	The effect of Fe as an impurity element for sustainable resynthesis of Li[Ni _{1/3} Co _{1/3} Mn _{1/3}]O ₂ cathode material from spent lithium-ion batteries. <i>Electrochimica Acta</i> , 2019, 296, 814-822.	5.2	66
13	Palladium-nickel alloys loaded on tungsten carbide as platinum-free anode electrocatalysts for polymer electrolyte membrane fuel cells. <i>Chemical Communications</i> , 2011, 47, 5792.	4.1	62
14	Maximization of high-temperature proton exchange membrane fuel cell performance with the optimum distribution of phosphoric acid. <i>Journal of Power Sources</i> , 2009, 188, 463-467.	7.8	60
15	Phosphoric acid distribution in the membrane electrode assembly of high temperature proton exchange membrane fuel cells. <i>Electrochimica Acta</i> , 2009, 54, 6570-6575.	5.2	55
16	Enhancing Activity and Stability of Cobalt Oxide Electrocatalysts for the Oxygen Evolution Reaction via Transition Metal Doping. <i>Journal of the Electrochemical Society</i> , 2016, 163, F3020-F3028.	2.9	55
17	Characterization of the SEI on a Carbon Film Electrode by Combined EQCM and Spectroscopic Ellipsometry. <i>Journal of the Electrochemical Society</i> , 2003, 150, A229.	2.9	54
18	Electrochemical Behaviors of Silicon Electrode in Lithium Salt Solution Containing Alkoxy Silane Additives. <i>Journal of the Electrochemical Society</i> , 2008, 155, A583.	2.9	54

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19	Role of Binders in High Temperature PEMFC Electrode. Journal of the Electrochemical Society, 2011, 158, B675-B681.	2.9	53
20	Synthesis and characterization of nanostructured PtCo-CeOx/C for oxygen reduction reaction. Journal of Power Sources, 2008, 185, 871-875.	7.8	52
21	Carbon-supported ultra-high loading Pt nanoparticle catalyst by controlled overgrowth of Pt: Improvement of Pt utilization leads to enhanced direct methanol fuel cell performance. International Journal of Hydrogen Energy, 2012, 37, 6880-6885.	7.1	45
22	Incorporation of Cu into Li[Ni1/3Co1/3Mn1/3]O2 cathode: Elucidating its electrochemical properties and stability. Journal of Alloys and Compounds, 2018, 764, 112-121.	5.5	41
23	Enhancement of electrochemical stability and catalytic activity of Pt nanoparticles via strong metal-support interaction with sulfur-containing ordered mesoporous carbon. Catalysis Today, 2011, 164, 186-189.	4.4	39
24	The Corrosion of Stainless Steel Made by Additive Manufacturing: A Review. Metals, 2021, 11, 516.	2.3	39
25	A review on biomass-derived N-doped carbons as electrocatalysts in electrochemical energy applications. Chemical Engineering Journal, 2022, 446, 137116.	12.7	39
26	Communication: Enhanced oxygen reduction reaction and its underlying mechanism in Pd-Ir-Co trimetallic alloys. Journal of Chemical Physics, 2013, 139, 201104.	3.0	37
27	Impact of framework structure of ordered mesoporous carbons on the performance of supported Pt catalysts for oxygen reduction reaction. Carbon, 2014, 72, 354-364.	10.3	37
28	Experimental factors that influence carbon monoxide tolerance of high-temperature proton-exchange membrane fuel cells. Journal of Power Sources, 2008, 185, 202-206.	7.8	36
29	Understanding the role of trace amount of Fe incorporated in Ni-rich Li[Ni1-x-yCoxMny]O2 cathode material. Journal of Alloys and Compounds, 2020, 835, 155342.	5.5	33
30	Ceria-promoted oxygen reduction reaction in Pd-based electrocatalysts. Electrochemistry Communications, 2011, 13, 1067-1069.	4.7	32
31	Effects of Residual Lithium in the precursors of Li[Ni 1/3 Co 1/3 Mn 1/3]O 2 on their lithium-ion battery performance. Journal of Physics and Chemistry of Solids, 2018, 118, 47-52.	4.0	30
32	Platinum-antimony tin oxide nanoparticle as cathode catalyst for direct methanol fuel cell. Catalysis Today, 2009, 146, 15-19.	4.4	29
33	Fabricating BiOCl/BiVO4 nanosheets wrapped in a graphene oxide heterojunction composite for detection of an antihistamine in biological samples. Environmental Research, 2022, 212, 113636.	7.5	29
34	Effect of water on the stability of zinc in 1-butyl-1-methylpyrrolidinium bis(trifluoromethylsulfonyl)imide ionic liquid. Journal of Industrial and Engineering Chemistry, 2017, 45, 375-379.	5.8	27
35	Comparative study of corrosion behavior of metals in protic and aprotic ionic liquids. Electrochemistry Communications, 2016, 73, 20-23.	4.7	25
36	Effect of Na from the leachate of spent Li-ion batteries on the properties of resynthesized Li-ion battery cathodes. Journal of Alloys and Compounds, 2021, 873, 159808.	5.5	25

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37	Direct electrochemical lithium recovery from acidic lithium-ion battery leachate using intercalation electrodes. <i>Resources, Conservation and Recycling</i> , 2021, 175, 105837.	10.8	25
38	Investigation of hydrophobic MoSe ₂ grown at edge sites on TiO ₂ nanofibers for photocatalytic CO ₂ reduction. <i>Chemical Engineering Journal</i> , 2021, 420, 130496.	12.7	24
39	Dual-Function Regeneration of Waste Lithium Cobalt Oxide for Stable High Voltage Cycle Performance. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 11194-11203.	6.7	23
40	Understanding the effect of nonmetallic impurities in regenerated cathode materials for lithium-ion battery recycling by tracking down impurity elements. <i>Journal of Hazardous Materials</i> , 2022, 425, 127907.	12.4	23
41	Nitridated Siâ€“Tiâ€“Ni alloy as an anode for Li rechargeable batteries. <i>Journal of Power Sources</i> , 2014, 253, 282-286.	7.8	22
42	Performance enhancement of Pd-based hydrogen oxidation catalysts using tungsten oxide. <i>Catalysis Today</i> , 2014, 232, 175-178.	4.4	22
43	Carbothermic reduction of spent Lithium-Ion batteries using CO ₂ as reaction medium. <i>Chemical Engineering Journal</i> , 2022, 435, 135165.	12.7	21
44	The Effects of Incorporated Sn in Resynthesized Ni-Rich Cathode Materials on Their Lithium-Ion Battery Performance. <i>Metals</i> , 2017, 7, 395.	2.3	19
45	Performance enhancement of phosphoric acid-based proton exchange membrane fuel cells by using ammonium trifluoromethanesulfonate. <i>Electrochemistry Communications</i> , 2009, 11, 1124-1126.	4.7	17
46	Processing, Microstructure, and Oxidation Behavior of Iron Foams. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 4760-4766.	2.2	17
47	Electrochemical effects of residual Al in the resynthesis of Li[Ni _{1/3} Mn _{1/3} Co _{1/3}]O ₂ cathode materials. <i>Journal of Alloys and Compounds</i> , 2021, 857, 157581.	5.5	17
48	Performance of photovoltaic-driven electrochemical cell systems for CO ₂ reduction. <i>Chemical Engineering Journal</i> , 2022, 428, 130259.	12.7	17
49	The oxygen reduction electrocatalytic activity of intermetallic compound of palladiumâ€“tin supported on tin oxideâ€“carbon composite. <i>Catalysis Today</i> , 2011, 164, 176-180.	4.4	16
50	Effect of Cation Structure on Electrochemical Behavior of Lithium in [NTf ₂] ⁻ -based Ionic Liquids. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 491-496.	6.7	15
51	Effect of Residual Trace Amounts of Fe and Al in Li[Ni _{1/3} Mn _{1/3} Co _{1/3}]O ₂ Cathode Active Material for the Sustainable Recycling of Lithium-Ion Batteries. <i>Materials</i> , 2021, 14, 2464.	2.9	15
52	Nanowire-Like Copper Oxide Grown on Porous Copper, a Promising Anode Material for Lithium-Ion Battery. <i>Journal of the Korean Ceramic Society</i> , 2017, 54, 438-442.	2.3	15
53	Nanoparticle intercalation-induced interlayer-gap-opened grapheneâ€“polyaniline nanocomposite for enhanced supercapacitive performances. <i>Applied Surface Science</i> , 2017, 412, 160-169.	6.1	14
54	Viscosity Changes of Li Battery Electrolytes and Their Long-Term Effect on the Frequency of EQCM Electrodes. <i>Electrochemical and Solid-State Letters</i> , 2002, 5, A59.	2.2	13

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55	Comparison between cyclic voltammetry and chronoamperometry when coupled with EQCM for the study of the SEI on a carbon film electrode. <i>Electrochimica Acta</i> , 2004, 49, 867-872.	5.2	11
56	Effects of Powder Carrier on the Morphology and Compressive Strength of Iron Foams: Water vs Camphene. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2018, 49, 2182-2190.	2.1	11
57	Valorization of a spent lithium-ion battery electrolyte through syngas formation using CO ₂ -assisted catalytic thermolysis over a battery cathode material. <i>Journal of CO₂ Utilization</i> , 2021, 50, 101591.	6.8	10
58	CO-Tolerant Pt@BeO as a Novel Anode Electrocatalyst in Proton Exchange Membrane Fuel Cells. <i>Catalysts</i> , 2016, 6, 68.	3.5	9
59	Heterogeneous Electrocatalyst of Palladium-Cobalt-Phosphorus on Carbon Support for Oxygen Reduction Reaction in High Temperature Proton Exchange Membrane Fuel Cells. <i>Journal of Nanoscience and Nanotechnology</i> , 2016, 16, 4357-4361.	0.9	9
60	Phytic Acid-Doped Cross-linked Polyaniline Nanofibers for Electrochemical Supercapacitor Electrode Applications. <i>Journal of the Korean Physical Society</i> , 2019, 74, 145-153.	0.7	9
61	Effects of methanesulfonic acid on electrolyte for vanadium redox flow batteries. <i>Journal of Industrial and Engineering Chemistry</i> , 2021, 99, 326-333.	5.8	9
62	Role of Binders in High Temperature PEMFC Electrode. <i>ECS Transactions</i> , 2006, 3, 447-451.	0.5	8
63	Effect of calixpyrrole on electrochemical properties of Pt electrocatalyst in phosphoric acid electrolyte. <i>Electrochimica Acta</i> , 2008, 54, 513-517.	5.2	8
64	Corrosion Prevention of Chromium Nitride Coating with an Application to Bipolar Plate Materials. <i>Electrochemistry</i> , 2014, 82, 658-662.	1.4	8
65	Enhancement of Bifunctional Activity of the Hybrid Catalyst of Hollow-Net Structure Co ₃ O ₄ and Carbon Nanotubes. <i>Journal of the Electrochemical Society</i> , 2016, 163, F3041-F3050.	2.9	8
66	Synergistic enhancement of activity towards hydrogen oxidation reaction by Palladium-Ruthenium bimetallic catalysts in acidic media. <i>Journal of Alloys and Compounds</i> , 2020, 849, 156642.	5.5	8
67	The enhancement of cyclability of Ni-rich $\text{LiNi}_{0.9}\text{Co}_{0.05}\text{Mn}_{0.05}\text{Zn}_x$. <i>International Journal of Energy Research</i> , 2022, 46, 19177-19189.	4.5	7
68	Parameter analysis from the modeling of high temperature proton exchange membrane fuel cells. <i>Applied Energy</i> , 2021, 301, 117488.	10.1	6
69	The Effect of Excessive Sulfate in the Li-Ion Battery Leachate on the Properties of Resynthesized Li[Ni _{1/3} Co _{1/3} Mn _{1/3}]O ₂ . <i>Materials</i> , 2021, 14, 6672.	2.9	6
70	Passivation Behavior and Surface Resistance of Electrodeposited Nickel-Carbon Composites. <i>Electrochemistry</i> , 2014, 82, 561-565.	1.4	5
71	Elucidation of durability of carbon-supported PdIr alloy catalyst by experimental and theoretical approaches in polymer electrolyte membrane fuel cell. <i>Journal of Industrial and Engineering Chemistry</i> , 2021, 97, 280-286.	5.8	4
72	Upgrading spent battery separator into syngas and hydrocarbons through CO ₂ -Assisted thermochemical platform. <i>Energy</i> , 2022, 242, 122552.	8.8	4

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73	Room temperature magnesium electrorefining by using non-aqueous electrolyte. <i>Metals and Materials International</i> , 2016, 22, 907-914.	3.4	3
74	Building an electrochemical series of metals in pyrrolidinium-based ionic liquids. <i>RSC Advances</i> , 2020, 10, 24115-24118.	3.6	3
75	Corrosion investigation of nitrided chromium coating layer on nickel in non-aqueous electrolytes. <i>Materials Chemistry and Physics</i> , 2014, 148, 444-448.	4.0	1
76	High Pressure Acid Leaching of Co Matte Converted from Co Concentrate. <i>Materials Transactions</i> , 2016, 57, 1753-1758.	1.2	0
77	Utilizing the Intrinsic Thermal Instability of Swedenborgite Structured $\text{YBaCo}_4\text{O}_{7+\delta}$ as an Opportunity for Material Engineering in Lithium-Ion Batteries by Er and Ga Co-Doping Processes. <i>Materials</i> , 2021, 14, 4565.	2.9	0