

KwangSup Eom

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8261333/publications.pdf>

Version: 2024-02-01

61
papers

2,192
citations

185998

28
h-index

233125

45
g-index

61
all docs

61
docs citations

61
times ranked

3085
citing authors

#	ARTICLE	IF	CITATIONS
1	Lignin-Based Materials for Sustainable Rechargeable Batteries. <i>Polymers</i> , 2022, 14, 673.	2.0	16
2	Unraveling the effect of disproportionation of lithium polysulfides on the electrochemical reaction and S utilization in lithium-sulfur battery. <i>Electrochimica Acta</i> , 2022, 412, 140092.	2.6	5
3	Identification of electrode degradation by carbon corrosion in polymer electrolyte membrane fuel cells using the distribution of relaxation time analysis. <i>Electrochimica Acta</i> , 2022, 414, 140219.	2.6	10
4	Enhanced activity and stability of Co-Ni-P-B catalyst for the hydrogen evolution reaction via predeposition of Co-Ni on a Cu substrate. <i>Catalysis Today</i> , 2021, 359, 35-42.	2.2	14
5	Realizing superior energy in a full-cell LIB employing a Li-metal anode via the rational design of a Cu-scaffold host structure with an extremely high porosity. <i>Energy Storage Materials</i> , 2021, 36, 326-332.	9.5	5
6	Enhancing the Capacity and Stability of a Tungsten Disulfide Anode in a Lithium-Ion Battery Using Excess Sulfur. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 20213-20221.	4.0	8
7	Effects of Oversaturated Cathode Humidity Conditions on the Performance Degradation of PEMFCs and Diagnostic Signals of Warburg Impedance under Low Humidity Conditions. <i>Journal of Physical Chemistry C</i> , 2021, 125, 10824-10834.	1.5	6
8	A Comparison Study on the Carbon Corrosion Reaction under Saturated and Low Relative Humidity Conditions via Transmission Line Model-Based Electrochemical Impedance Analysis. <i>Journal of the Electrochemical Society</i> , 2021, 168, 064515.	1.3	5
9	Effects of a nanometrically formed lithiophilic silver@copper current collector on the electrochemical nucleation and growth behaviors of lithium metal anodes. <i>Applied Surface Science</i> , 2021, 554, 149578.	3.1	11
10	Effect of a pre-deposited Ni layer on the hydrogen evolution performance of an electroplated Ni@P/CFP composite catalyst in acidic media. <i>Functional Composites and Structures</i> , 2021, 3, 035001.	1.6	1
11	Understanding an Exceptionally Fast and Stable Li-Ion Charging of Highly Fluorinated Graphene with Fine-Controlled C@F Configuration. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 53767-53776.	4.0	9
12	Advanced ordered mesoporous carbon with fast Li-ion diffusion for lithium-selenium sulfide batteries in a carbonate-based electrolyte. <i>Carbon</i> , 2020, 170, 236-244.	5.4	16
13	Deconvolution of the dehydration degradation mechanism in polymer electrolyte membrane fuel cells using electrochemical impedance analysis combined with the transmission line model under low humidity. <i>Journal of Power Sources</i> , 2020, 473, 228587.	4.0	12
14	In Battery Polyaniline Coating: In Battery Electrochemical Polymerization to Form a Protective Conducting Layer on Se/C Cathodes for High-Performance Li-Se Batteries (<i>Adv. Funct. Mater.</i> 19/2020). <i>Advanced Functional Materials</i> , 2020, 30, 2070124.	7.8	0
15	Overcoming the Unfavorable Kinetics of Na ₃ V ₂ (PO ₄) ₂ F ₃ /SnP _x Full-Cell Sodium-Ion Batteries for High Specific Energy and Energy Efficiency. <i>Advanced Functional Materials</i> , 2020, 30, 2003086.	7.8	27
16	In Battery Electrochemical Polymerization to Form a Protective Conducting Layer on Se/C Cathodes for High-Performance Li-Se Batteries. <i>Advanced Functional Materials</i> , 2020, 30, 2000028.	7.8	25
17	High-performance boron-doped silicon micron-rod anode fabricated using a mass-producible lithography method for a lithium ion battery. <i>Journal of Power Sources</i> , 2020, 454, 227931.	4.0	25
18	Lithium-selenium sulfide batteries with long cycle life and high energy density via solvent washing treatment. <i>Applied Surface Science</i> , 2020, 512, 145632.	3.1	9

#	ARTICLE	IF	CITATIONS
19	Amorphous MoS _x embedded within edges of modified graphite as fast-charging anode material for rechargeable batteries. <i>Applied Surface Science</i> , 2020, 509, 145352.	3.1	13
20	Enhancing the electrochemical properties of a Si anode by introducing cobalt metal as a conductive buffer for lithium-ion batteries. <i>Journal of Alloys and Compounds</i> , 2020, 827, 154102.	2.8	27
21	Enhancing the electrochemical performances of a tellurium-based cathode for a high-volumetric capacity Li battery via a high-energy ball mill with sulfur edge-functionalized carbon. <i>Journal of Power Sources</i> , 2019, 430, 112-119.	4.0	22
22	Effect of iron content on the hydrogen production kinetics of electroless-deposited Co Ni Fe P alloy catalysts from the hydrolysis of sodium borohydride, and a study of its feasibility in a new hydrolysis using magnesium and calcium borohydrides. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 15228-15238.	3.8	17
23	Facile phosphorus-embedding into SnS ₂ using a high-energy ball mill to improve the surface kinetics of P-SnS ₂ anodes for a Li-ion battery. <i>Applied Surface Science</i> , 2019, 466, 578-582.	3.1	20
24	Design of Mg-Cu alloys for fast hydrogen production, and its application to PEM fuel cell. <i>Journal of Alloys and Compounds</i> , 2018, 741, 590-596.	2.8	30
25	Corrosion-resistant coating for cathode current collector and wet-seal area of molten carbonate fuel cells. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 11363-11371.	3.8	6
26	In Situ Self-Formed Nanosheet MoS ₃ /Reduced Graphene Oxide Material Showing Superior Performance as a Lithium-Ion Battery Cathode. <i>ACS Nano</i> , 2018, 13, 1490-1498.	7.3	49
27	Selenium-infiltrated mesoporous carbon composite cathode for a high-capacity lithium-chalcogen battery: Effects of carbon structure and dopant on the rate-capability and cyclic stability. <i>Journal of Power Sources</i> , 2018, 408, 111-119.	4.0	11
28	Improving the Stability of an RT NaS Battery via In Situ Electrochemical Formation of Protective SEI on a Sulfur-Carbon Composite Cathode. <i>Advanced Sustainable Systems</i> , 2018, 2, 1800076.	2.7	14
29	Bi-axial grown amorphous MoS _x bridged with oxygen on r-GO as a superior stable and efficient nonprecious catalyst for hydrogen evolution. <i>Scientific Reports</i> , 2017, 7, 41190.	1.6	31
30	Submicron silicon encapsulated with graphene and carbon as a scalable anode for lithium-ion batteries. <i>Carbon</i> , 2017, 119, 438-445.	5.4	53
31	Electrospun Nb-doped TiO ₂ nanofiber support for Pt nanoparticles with high electrocatalytic activity and durability. <i>Scientific Reports</i> , 2017, 7, 44411.	1.6	53
32	A stable lithiated silicon-chalcogen battery via synergetic chemical coupling between silicon and selenium. <i>Nature Communications</i> , 2017, 8, 13888.	5.8	46
33	Fabrication of Mg-Ni-Sn alloys for fast hydrogen generation in seawater. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 7761-7769.	3.8	49
34	Enhancing the Stability of Sulfur Cathodes in Li-S Cells via in Situ Formation of a Solid Electrolyte Layer. <i>ACS Energy Letters</i> , 2016, 1, 373-379.	8.8	61
35	High Temperature Oxidation Behavior of APM and APMT under Dry Air/Steam Condition. <i>MRS Advances</i> , 2016, 1, 2471-2476.	0.5	2
36	Hierarchical networks of redox-active reduced crumpled graphene oxide and functionalized few-walled carbon nanotubes for rapid electrochemical energy storage. <i>Nanoscale</i> , 2016, 8, 12330-12338.	2.8	31

#	ARTICLE	IF	CITATIONS
37	Design of Mg-Ni alloys for fast hydrogen generation from seawater and their application in polymer electrolyte membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 5296-5303.	3.8	77
38	Design of an Advanced Membrane Electrode Assembly Employing a Double-Layered Cathode for a PEM Fuel Cell. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 27581-27585.	4.0	30
39	Improved stability of nano-Sn electrode with high-quality nano-SEI formation for lithium ion battery. <i>Nano Energy</i> , 2015, 12, 314-321.	8.2	108
40	Cobalt-carbon nanofibers as an efficient support-free catalyst for oxygen reduction reaction with a systematic study of active site formation. <i>Journal of Materials Chemistry A</i> , 2015, 3, 14284-14290.	5.2	77
41	A Study on the localized corrosion and repassivation kinetics of Fe-20Cr- x Ni (x = 0-20 wt%) stainless steels via electrochemical analysis. <i>Corrosion Science</i> , 2015, 100, 158-168.	3.0	25
42	Stabilization of selenium cathodes via in situ formation of protective solid electrolyte layer. <i>Journal of Materials Chemistry A</i> , 2014, 2, 18898-18905.	5.2	32
43	The design of a Li-ion full cell battery using a nano silicon and nano multi-layer graphene composite anode. <i>Journal of Power Sources</i> , 2014, 249, 118-124.	4.0	110
44	Effects of anode flooding on the performance degradation of polymer electrolyte membrane fuel cells. <i>Journal of Power Sources</i> , 2014, 266, 332-340.	4.0	84
45	The effect of fluoroethylene carbonate additive content on the formation of the solid-electrolyte interphase and capacity fade of Li-ion full-cell employing nano Si-graphene composite anodes. <i>Journal of Power Sources</i> , 2014, 257, 163-169.	4.0	118
46	Observation of passive films on Fe-20Cr-xNi (x=0, 10, 20wt.%) alloys using TEM and Cs-corrected STEM-EELS. <i>Corrosion Science</i> , 2014, 79, 34-40.	3.0	55
47	Effects of Dissolved Transition Metals on the Electrochemical Performance and SEI Growth in Lithium-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2014, 161, A1915-A1921.	1.3	153
48	Optimization of GDLs for high-performance PEMFC employing stainless steel bipolar plates. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 6249-6260.	3.8	11
49	Effects of heat treatment time on electrochemical properties and electrode structure of polytetrafluoroethylene-bonded membrane electrode assemblies for polybenzimidazole-based high-temperature proton exchange membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 12335-12342.	3.8	12
50	Thermochemical production of sodium borohydride from sodium metaborate in a scaled-up reactor. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 2804-2809.	3.8	29
51	On-board hydrogen production by hydrolysis from designed Al-Cu alloys and the application of this technology to polymer electrolyte membrane fuel cells. <i>Journal of Power Sources</i> , 2012, 217, 345-350.	4.0	32
52	Degradation behavior of a polymer electrolyte membrane fuel cell employing metallic bipolar plates under reverse current condition. <i>Electrochimica Acta</i> , 2012, 78, 324-330.	2.6	28
53	Effects of Pt loading in the anode on the durability of a membrane-electrode assembly for polymer electrolyte membrane fuel cells during startup/shutdown cycling. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 18455-18462.	3.8	35
54	Effects of residual oxygen partial pressure on the degradation of polymer electrolyte membrane fuel cells under reverse current conditions. <i>Journal of Power Sources</i> , 2012, 198, 42-50.	4.0	27

#	ARTICLE	IF	CITATIONS
55	Design of Al-Fe alloys for fast on-board hydrogen production from hydrolysis. Journal of Materials Chemistry, 2011, 21, 13047.	6.7	34
56	Design of ternary Al-Sn-Fe alloy for fast on-board hydrogen production, and its application to PEM fuel cell. International Journal of Hydrogen Energy, 2011, 36, 11825-11831.	3.8	42
57	Feasibility of on-board hydrogen production from hydrolysis of Al-Fe alloy for PEMFCs. International Journal of Hydrogen Energy, 2011, 36, 12338-12342.	3.8	38
58	Characterization of hydrogen generation for fuel cells via borane hydrolysis using an electroless-deposited Co-P/Ni foam catalyst. Journal of Power Sources, 2010, 195, 2830-2834.	4.0	52
59	Hydrogen generation from hydrolysis of NH ₃ BH ₃ by an electroplated Co-P catalyst. International Journal of Hydrogen Energy, 2010, 35, 181-186.	3.8	74
60	Effects of deposition time on the H ₂ generation kinetics of electroless-deposited cobalt-phosphorous catalysts from NaBH ₄ hydrolysis, and its cyclic durability. International Journal of Hydrogen Energy, 2010, 35, 5220-5226.	3.8	45
61	Effects of electroless deposition conditions on microstructures of cobalt-phosphorous catalysts and their hydrogen generation properties in alkaline sodium borohydride solution. Journal of Power Sources, 2008, 180, 484-490.	4.0	125