

# Afriyanti Sumboja

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

52  
papers

5,373  
citations

31  
h-index

61  
g-index

61  
ext. papers

6,169  
ext. citations

10  
avg, IF

5.91  
L-index

#	Paper	IF	Citations
52	Improving ionic conductivity of doped Li <sub>7</sub> La <sub>3</sub> Zr <sub>2</sub> O <sub>12</sub> using optimized machine learning with simplistic descriptors. <i>Materials Letters</i> , <b>2022</b> , 308, 131159	3.3	1
51	Versatilely tuned vertical silicon nanowire arrays by cryogenic reactive ion etching as a lithium-ion battery anode. <i>Scientific Reports</i> , <b>2021</b> , 11, 19779	4.9	9
50	Failure analysis of admiralty brass tubes in a surface condenser: a case study at the petrochemical industry. <i>Materials at High Temperatures</i> , <b>2021</b> , 38, 177-185	1.1	0
49	Advances of the top-down synthesis approach for high-performance silicon anodes in Li-ion batteries. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 18906-18926	13	13
48	Recent Progress in Extending the Cycle-Life of Secondary Zn-Air Batteries. <i>ChemNanoMat</i> , <b>2021</b> , 7, 354-367	3.67	9
47	FeCo Nanoparticle-Loaded Nutshell-Derived Porous Carbon as Sustainable Catalyst in Al-Air Batteries. <i>Energy Material Advances</i> , <b>2021</b> , 2021, 1-12	1	6
46	Red Bean Pod Derived Heterostructure Carbon Decorated with Hollow Mixed Transition Metals as a Bifunctional Catalyst in Zn-Air Batteries. <i>Chemistry - an Asian Journal</i> , <b>2021</b> , 16, 2559-2567	4.5	3
45	Enhancing bifunctional catalytic activity of cobalt-nickel sulfide spinel nanocatalysts through transition metal doping and its application in secondary zinc-air batteries.. <i>RSC Advances</i> , <b>2020</b> , 10, 41877-41889	3.7	9
44	Facile synthesis of battery waste-derived graphene for transparent and conductive film application by an electrochemical exfoliation method.. <i>RSC Advances</i> , <b>2020</b> , 10, 10322-10328	3.7	12
43	Bifunctionally active nanosized spinel cobalt nickel sulfides for sustainable secondary zinc-air batteries: examining the effects of compositional tuning on OER and ORR activity. <i>Catalysis Science and Technology</i> , <b>2020</b> , 10, 2173-2182	5.5	11
42	Manganese Oxide Nanorods Decorated Table Sugar Derived Carbon as Efficient Bifunctional Catalyst in Rechargeable Zn-Air Batteries. <i>Catalysts</i> , <b>2020</b> , 10, 64	4	11
41	Hollow structure engineering of FeCo alloy nanoparticles electrospun in nitrogen-doped carbon enables high performance flexible all-solid-state zinc-air batteries. <i>Sustainable Energy and Fuels</i> , <b>2020</b> , 4, 1747-1753	5.8	26
40	Facile electrodeposition of graphene/polyaniline film on flexible substrate for supercapacitor application <b>2020</b> ,		1
39	Regeneration of LiNi <sub>1/3</sub> Co <sub>1/3</sub> Mn <sub>1/3</sub> O <sub>2</sub> Cathode Active Materials from End-of-Life Lithium-Ion Batteries through Ascorbic Acid Leaching and Oxalic Acid Coprecipitation Processes. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2020</b> , 8, 16104-16114	8.3	16
38	Decorating Co/CoN <sub>x</sub> nanoparticles in nitrogen-doped carbon nanoarrays for flexible and rechargeable zinc-air batteries. <i>Energy Storage Materials</i> , <b>2019</b> , 16, 243-250	19.4	157
37	Flexible and Wearable All-Solid-State Al-Air Battery Based on Iron Carbide Encapsulated in Electrospun Porous Carbon Nanofibers. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 1988-1995	9.5	38
36	Sulfur-Rich Colloidal Nickel Sulfides as Bifunctional Catalyst for All-Solid-State, Flexible and Rechargeable Zn-Air Batteries. <i>ChemCatChem</i> , <b>2019</b> , 11, 1205-1213	5.2	30

35	Transition-Metal-Doped $\beta$ MnO <sub>2</sub> Nanorods as Bifunctional Catalysts for Efficient Oxygen Reduction and Evolution Reactions. <i>ChemistrySelect</i> , <b>2018</b> , 3, 2613-2622	1.8	31
34	One-Step Facile Synthesis of Cobalt Phosphides for Hydrogen Evolution Reaction Catalysts in Acidic and Alkaline Medium. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 15673-15680	9.5	51
33	Facile One-Pot Synthesis of CoFe Alloy Nanoparticles Decorated N-Doped Carbon for High-Performance Rechargeable Zinc-Air Battery Stacks. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2018</b> , 6, 7743-7751	8.3	34
32	Single Co Atoms Anchored in Porous N-Doped Carbon for Efficient Zinc-Air Battery Cathodes. <i>ACS Catalysis</i> , <b>2018</b> , 8, 8961-8969	13.1	250
31	Integrated Hierarchical Carbon Flake Arrays with Hollow P-Doped CoSe <sub>2</sub> Nanoclusters as an Advanced Bifunctional Catalyst for Zn-Air Batteries. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1804846	15.6	126
30	A Stability Improvement of Rechargeable Zn-air Batteries by Introducing Thiourea and Polyethylenimine as Electrolyte Additives <b>2018</b> ,		1
29	Electrochemical energy storage devices for wearable technology: a rationale for materials selection and cell design. <i>Chemical Society Reviews</i> , <b>2018</b> , 47, 5919-5945	58.5	215
28	NiMn layered double hydroxides as efficient electrocatalysts for the oxygen evolution reaction and their application in rechargeable Zn-air batteries. <i>Nanoscale</i> , <b>2017</b> , 9, 774-780	7.7	100
27	Hollow Co O Nanosphere Embedded in Carbon Arrays for Stable and Flexible Solid-State Zinc-Air Batteries. <i>Advanced Materials</i> , <b>2017</b> , 29, 1704117	24	325
26	All-Solid-State, Foldable, and Rechargeable Zn-Air Batteries Based on Manganese Oxide Grown on Graphene-Coated Carbon Cloth Air Cathode. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1700927	21.8	106
25	High power nano-Nb <sub>2</sub> O <sub>5</sub> negative electrodes for lithium-ion batteries. <i>Electrochimica Acta</i> , <b>2016</b> , 192, 363-369	6.7	77
24	Self-powered graphene thermistor. <i>Nano Energy</i> , <b>2016</b> , 26, 586-594	17.1	21
23	Progress in development of flexible metal-air batteries. <i>Functional Materials Letters</i> , <b>2016</b> , 09, 1630001	1.2	33
22	Durable rechargeable zinc-air batteries with neutral electrolyte and manganese oxide catalyst. <i>Journal of Power Sources</i> , <b>2016</b> , 332, 330-336	8.9	95
21	Oxygen Reduction in Alkaline Media: From Mechanisms to Recent Advances of Catalysts. <i>ACS Catalysis</i> , <b>2015</b> , 5, 4643-4667	13.1	748
20	Nanostructured Perovskite LaCo <sub>1-x</sub> Mn <sub>x</sub> O <sub>3</sub> as Bifunctional Catalysts for Rechargeable Metal-Air Batteries. <i>Journal of Molecular and Engineering Materials</i> , <b>2015</b> , 03, 1540006	1.3	4
19	Investigation of Charge Transfer Kinetics of Polyaniline Supercapacitor Electrodes by Scanning Electrochemical Microscopy. <i>Advanced Materials Interfaces</i> , <b>2015</b> , 2, 1400154	4.6	34
18	Orthorhombic niobium oxide nanowires for next generation hybrid supercapacitor device. <i>Nano Energy</i> , <b>2015</b> , 11, 765-772	17.1	125

17	Manganese Oxide Catalyst Grown on Carbon Paper as an Air Cathode for High-Performance Rechargeable Zinc-Air Batteries. <i>ChemPlusChem</i> , <b>2015</b> , 80, 1341-1346	2.8	58
16	Nickel cobalt oxide nanowire-reduced graphite oxide composite material and its application for high performance supercapacitor electrode material. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2014</b> , 14, 7104-10	1.3	8
15	High performance porous nickel cobalt oxide nanowires for asymmetric supercapacitor. <i>Nano Energy</i> , <b>2014</b> , 3, 119-126	17.1	266
14	Insights on the fundamental capacitive behavior: a case study of MnO <sub>2</sub> . <i>Small</i> , <b>2014</b> , 10, 3568-78	11	41
13	Aniline Tetramer-Graphene Oxide Composites for High Performance Supercapacitors. <i>Advanced Energy Materials</i> , <b>2014</b> , 4, 1400781	21.8	38
12	Topotactic Phase Transformation of Hexagonal MoO <sub>3</sub> to Layered MoO <sub>3</sub> -II and Its Two-Dimensional (2D) Nanosheets. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 5533-5539	9.6	46
11	Achieving High Rate Performance in Layered Hydroxide Supercapacitor Electrodes. <i>Advanced Energy Materials</i> , <b>2014</b> , 4, 1301240	21.8	146
10	Flexible and Highly Scalable V <sub>2</sub> O <sub>5</sub> -rGO Electrodes in an Organic Electrolyte for Supercapacitor Devices. <i>Advanced Energy Materials</i> , <b>2014</b> , 4, 1400236	21.8	243
9	Rational design of a high performance all solid state flexible micro-supercapacitor on paper. <i>RSC Advances</i> , <b>2013</b> , 3, 15827	3.7	40
8	Large areal mass, flexible and free-standing reduced graphene oxide/manganese dioxide paper for asymmetric supercapacitor device. <i>Advanced Materials</i> , <b>2013</b> , 25, 2809-15	24	505
7	Nanoarchitected current collector for high rate capability of polyaniline based supercapacitor electrode. <i>Electrochimica Acta</i> , <b>2012</b> , 65, 190-195	6.7	94
6	Monitoring electroactive ions at manganese dioxide pseudocapacitive electrodes with scanning electrochemical microscope for supercapacitor electrodes. <i>Journal of Power Sources</i> , <b>2012</b> , 207, 205-211	8.9	30
5	Significant electrochemical stability of manganese dioxide/polyaniline coaxial nanowires by self-terminated double surfactant polymerization for pseudocapacitor electrode. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 23921		75
4	Enhancing electrochemical reaction sites in nickel-cobalt layered double hydroxides on zinc tin oxide nanowires: a hybrid material for an asymmetric supercapacitor device. <i>Nanoscale</i> , <b>2012</b> , 4, 7266-7277	7.7	365
3	Cryogel Synthesis of Hierarchical Interconnected Macro-/Mesoporous Co <sub>3</sub> O <sub>4</sub> with Superb Electrochemical Energy Storage. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 4930-4935	3.8	79
2	V <sub>2</sub> O <sub>5</sub> loaded on SnO <sub>2</sub> nanowires for high-rate li ion batteries. <i>Advanced Materials</i> , <b>2011</b> , 23, 746-50	24	127
1	Facile coating of manganese oxide on tin oxide nanowires with high-performance capacitive behavior. <i>ACS Nano</i> , <b>2010</b> , 4, 4247-55	16.7	477