

Nutthaphon Phattharasupakun

List of Publications by Year in descending order

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74
papers

1,654
citations

218677

26
h-index

345221

36
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75
all docs

75
docs citations

75
times ranked

2143
citing authors

#	ARTICLE	IF	CITATIONS
1	High-Performance Supercapacitor of Functionalized Carbon Fiber Paper with High Surface Ionic and Bulk Electronic Conductivity: Effect of Organic Functional Groups. <i>Electrochimica Acta</i> , 2015, 176, 504-513.	5.2	74
2	Charge storage performances and mechanisms of MnO ₂ nanospheres, nanorods, nanotubes and nanosheets. <i>Nanoscale</i> , 2017, 9, 13630-13639.	5.6	74
3	Antifungal activity of water-stable copper-containing metal-organic frameworks. <i>Royal Society Open Science</i> , 2017, 4, 170654.	2.4	66
4	Lithium Bond Impact on Lithium Polysulfide Adsorption with Functionalized Carbon Fiber Paper Interlayers for Lithium-Sulfur Batteries. <i>Journal of Physical Chemistry C</i> , 2018, 122, 7033-7040.	3.1	55
5	Charge storage mechanisms of electrospun Mn ₃ O ₄ nanofibres for high-performance supercapacitors. <i>RSC Advances</i> , 2017, 7, 9958-9963.	3.6	53
6	A new concept of charging supercapacitors based on the photovoltaic effect. <i>Chemical Communications</i> , 2017, 53, 709-712.	4.1	53
7	Enhancing bifunctional electrocatalysts of hollow Co ₃ O ₄ nanorods with oxygen vacancies towards ORR and OER for Li-O ₂ batteries. <i>Electrochimica Acta</i> , 2021, 367, 137490.	5.2	49
8	Mechanism of Action of the Tungsten Dopant in LiNiO ₂ Positive Electrode Materials. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	49
9	Turning conductive carbon nanospheres into nanosheets for high-performance supercapacitors of MnO ₂ nanorods. <i>Chemical Communications</i> , 2016, 52, 2585-2588.	4.1	47
10	Core-shell Ni-rich NMC-Nanocarbon cathode from scalable solvent-free mechanofusion for high-performance 18650 Li-ion batteries. <i>Energy Storage Materials</i> , 2021, 36, 485-495.	18.0	46
11	Strong adsorption of lithium polysulfides on ethylenediamine-functionalized carbon fiber paper interlayer providing excellent capacity retention of lithium-sulfur batteries. <i>Carbon</i> , 2017, 123, 492-501.	10.3	42
12	High-performance hybrid supercapacitor of mixed-valence manganese oxide/N-doped graphene aerogel nanoflower using an ionic liquid with a redox additive as the electrolyte: In situ electrochemical X-ray absorption spectroscopy. <i>Electrochimica Acta</i> , 2018, 271, 110-119.	5.2	40
13	Rechargeable Photoactive Zn-Air Batteries Using NiCo ₂ S ₄ as an Efficient Bifunctional Photocatalyst towards OER/ORR at the Cathode. <i>Batteries and Supercaps</i> , 2020, 3, 541-547.	4.7	40
14	Collaborative design of Li-S batteries using 3D N-doped graphene aerogel as a sulfur host and graphitic carbon nitride paper as an interlayer. <i>Sustainable Energy and Fuels</i> , 2017, 1, 1759-1765.	4.9	35
15	Chemical Adsorption and Physical Confinement of Polysulfides with the Janus-faced Interlayer for High-performance Lithium-Sulfur Batteries. <i>Scientific Reports</i> , 2017, 7, 17703.	3.3	35
16	Designing an interlayer of reduced graphene oxide aerogel and nitrogen-rich graphitic carbon nitride by a layer-by-layer coating for high-performance lithium sulfur batteries. <i>Carbon</i> , 2018, 139, 945-953.	10.3	34
17	Charge storage mechanisms of birnessite-type MnO ₂ nanosheets in Na ₂ SO ₄ electrolytes with different pH values: In situ electrochemical X-ray absorption spectroscopy investigation. <i>Electrochimica Acta</i> , 2018, 273, 17-25.	5.2	33
18	Insight into the effect of intercalated alkaline cations of layered manganese oxides on the oxygen reduction reaction and oxygen evolution reaction. <i>Chemical Communications</i> , 2018, 54, 8575-8578.	4.1	33

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19	Environmentally benign non-fluoro deep eutectic solvent and free-standing rice husk-derived bio-carbon based high-temperature supercapacitors. <i>Electrochimica Acta</i> , 2018, 286, 148-157.	5.2	32
20	Effect of intercalated alkali ions in layered manganese oxide nanosheets as neutral electrochemical capacitors. <i>Chemical Communications</i> , 2019, 55, 1213-1216.	4.1	32
21	A 3D free-standing lithiophilic silver nanowire aerogel for lithium metal batteries without lithium dendrites and volume expansion: <i>in operando</i> X-ray diffraction. <i>Chemical Communications</i> , 2019, 55, 5689-5692.	4.1	32
22	Factors that Affect Capacity in the Low Voltage Kinetic Hindrance Region of Ni-Rich Positive Electrode Materials and Diffusion Measurements from a Reinvented Approach. <i>Journal of the Electrochemical Society</i> , 2021, 168, 070503.	2.9	29
23	Novel Hybrid Energy Conversion and Storage Cell with Photovoltaic and Supercapacitor Effects in Ionic Liquid Electrolyte. <i>Scientific Reports</i> , 2018, 8, 12192.	3.3	28
24	High-Performance Li-Ion Batteries Using Nickel-Rich Lithium Nickel Cobalt Aluminium Oxide@Nanocarbon Core@Shell Cathode: In Operando X-ray Diffraction. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 30719-30727.	8.0	28
25	3D CVD graphene oxide-coated Ni foam as carbo- and electro-catalyst towards hydrogen evolution reaction in acidic solution: In situ electrochemical gas chromatography. <i>Carbon</i> , 2019, 151, 109-119.	10.3	28
26	Enhancing the Charge Storage Capacity of Lithium-Ion Capacitors Using Nitrogen-Doped Reduced Graphene Oxide Aerogel as a Negative Electrode: A Hydrodynamic Rotating Disk Electrode Investigation. <i>Journal of the Electrochemical Society</i> , 2018, 165, A609-A617.	2.9	27
27	Insight into the effect of additives widely used in lithium-sulfur batteries. <i>Chemical Communications</i> , 2019, 55, 13951-13954.	4.1	26
28	Cobalt oxysulphide/hydroxide nanosheets with dual properties based on electrochromism and a charge storage mechanism. <i>RSC Advances</i> , 2020, 10, 14154-14160.	3.6	24
29	Correlating Cation Mixing with Li Kinetics: Electrochemical and Li Diffusion Measurements on Li-Deficient LiNiO_2 and Li-Excess $\text{LiNi}_{0.5}\text{Mn}_{0.5}\text{O}_2$. <i>Journal of the Electrochemical Society</i> , 2021, 168, 090535.	2.9	24
30	High-performance supercapacitors of carboxylate-modified hollow carbon nanospheres coated on flexible carbon fibre paper: Effects of oxygen-containing group contents, electrolytes and operating temperature. <i>Electrochimica Acta</i> , 2017, 238, 64-73.	5.2	23
31	Core-shell structure of LiMn_2O_4 cathode material reduces phase transition and Mn dissolution in Li-ion batteries. <i>Communications Chemistry</i> , 2022, 5, .	4.5	23
32	Transparent supercapacitors of 2 nm ruthenium oxide nanoparticles decorated on a 3D nitrogen-doped graphene aerogel. <i>Sustainable Energy and Fuels</i> , 2018, 2, 1799-1805.	4.9	22
33	High-performance spinel LiMn_2O_4 @carbon core@shell cathode materials for Li-ion batteries. <i>Sustainable Energy and Fuels</i> , 2019, 3, 1988-1994.	4.9	22
34	Core-double shell sulfur@carbon black nanosphere@oxidized carbon nanosheet composites as the cathode materials for Li-S batteries. <i>Electrochimica Acta</i> , 2017, 237, 78-86.	5.2	21
35	Turning Carbon Black to Hollow Carbon Nanospheres for Enhancing Charge Storage Capacities of LiMn_2O_4 , LiCoO_2 , LiNiMnCoO_2 , and LiFePO_4 Lithium-Ion Batteries. <i>ACS Omega</i> , 2017, 2, 3730-3738.	3.5	20
36	High-performance supercapacitor of electrodeposited porous 3D polyaniline nanorods on functionalized carbon fiber paper: Effects of hydrophobic and hydrophilic surfaces of conductive carbon paper substrates. <i>Materials Today Communications</i> , 2015, 4, 176-185.	1.9	19

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37	A new energy conversion and storage device of cobalt oxide nanosheets. <i>Journal of Materials Chemistry A</i> , 2018, 6, 36-40.	10.3	19
38	High-Performance Supercapacitors of N-Doped Graphene Aerogel and Its Nanocomposites with Manganese Oxide and Polyaniline. <i>Journal of the Electrochemical Society</i> , 2018, 165, A1430-A1439.	2.9	19
39	Layered manganese oxide nanosheets coated on N-doped graphene aerogel for hydrazine detection: Reaction mechanism investigated by in situ electrochemical X-ray absorption spectroscopy. <i>Journal of Electroanalytical Chemistry</i> , 2018, 808, 124-132.	3.8	18
40	Insight into photoelectrocatalytic mechanisms of bifunctional cobaltite hollow-nanofibers towards oxygen evolution and oxygen reduction reactions for high-energy zinc-air batteries. <i>Electrochimica Acta</i> , 2021, 392, 139022.	5.2	18
41	Scalable solvent-free mechanofusion and magnesiothermic reduction processes for obtaining carbon nanospheres-encapsulated crystalline silicon anode for Li-ion batteries. <i>Electrochimica Acta</i> , 2020, 352, 136457.	5.2	18
42	Sodium-ion diffusion and charge transfer kinetics of sodium-ion hybrid capacitors using bio-derived hierarchical porous carbon. <i>Electrochimica Acta</i> , 2018, 286, 55-64.	5.2	17
43	Cobalt-Free Core-Shell Structure with High Specific Capacity and Long Cycle Life as an Alternative to $\text{Li}[\text{Ni}_{0.8}\text{Mn}_{0.1}\text{Co}_{0.1}]\text{O}_2$. <i>Journal of the Electrochemical Society</i> , 2020, 167, 120533.	2.9	15
44	Lithium Intercalated-Layered Manganese Oxide and Reduced Graphene Oxide Composite as a Bifunctional Electrocatalyst for ORR and OER. <i>Journal of the Electrochemical Society</i> , 2019, 166, A1543-A1549.	2.9	13
45	Lightweight Multi-Walled Carbon Nanotube/N-Doped Graphene Aerogel Composite for High-Performance Lithium-Ion Capacitors. <i>Journal of the Electrochemical Society</i> , 2019, 166, A532-A538.	2.9	13
46	Optimization of the Electrode Properties for High-Performance Ni-Rich Li-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 30643-30652.	8.0	13
47	Impact of Al Doping and Surface Coating on the Electrochemical Performances of Li-Rich Mn-Rich $\text{Li}_{1.11}\text{Ni}_{0.33}\text{Mn}_{0.56}\text{O}_2$ Positive Electrode Material. <i>Journal of the Electrochemical Society</i> , 2020, 167, 120531.	2.9	13
48	Oxidative chemical vapour deposition of a graphene oxide carbocatalyst on 3D nickel foam as a collaborative electrocatalyst towards the hydrogen evolution reaction in acidic electrolyte. <i>Sustainable Energy and Fuels</i> , 2018, 2, 1305-1311.	4.9	12
49	A proton-hopping charge storage mechanism of ionic one-dimensional coordination polymers for high-performance supercapacitors. <i>Chemical Communications</i> , 2017, 53, 11786-11789.	4.1	11
50	Addition of Redox Additive to Ionic Liquid Electrolyte for High-Performance Electrochemical Capacitors of N-Doped Graphene Aerogel. <i>Journal of the Electrochemical Society</i> , 2019, 166, A695-A703.	2.9	11
51	Voltage-Dependent Li Kinetics Leads to Charge-Discharge Asymmetry in Co-Free Li-Rich $\text{Li}_{1.12}\text{Ni}_{0.44}\text{Mn}_{0.44}\text{O}_2$ under Conditions without Transition Metal Migration. <i>Journal of the Electrochemical Society</i> , 2021, 168, 090564.	2.9	11
52	Impact of Cr Doping on the Voltage Fade of Li-Rich Mn-Rich $\text{Li}_{1.11}\text{Ni}_{0.33}\text{Mn}_{0.56}\text{O}_2$ and $\text{Li}_{1.2}\text{Ni}_{0.2}\text{Mn}_{0.6}\text{O}_2$ Positive Electrode Materials. <i>Journal of the Electrochemical Society</i> , 2020, 167, 160545.	2.9	11
53	The charge density of intercalants inside layered birnessite manganese oxide nanosheets determining Zn-ion storage capability towards rechargeable Zn-ion batteries. <i>Journal of Materials Chemistry A</i> , 2022, 10, 5561-5568.	10.3	11
54	Thin-Film Photoelectrode of p-Type Ni-Doped Co_3O_4 Nanosheets for a Single Hybrid Energy Conversion and Storage Cell. <i>Journal of the Electrochemical Society</i> , 2019, 166, A2444-A2452.	2.9	10

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55	Tracking the Fate of Excess Li in the Synthesis of Various $\text{Li}_y[\text{Ni}_{1-x}\text{Mn}_x]\text{O}_2$ Positive Electrode Materials Under Different Atmospheres. <i>Journal of the Electrochemical Society</i> , 2022, 169, 030538.	2.9	10
56	A single energy conversion and storage cell of nickel-doped cobalt oxide under UV and visible light illumination. <i>Electrochimica Acta</i> , 2019, 328, 135120.	5.2	9
57	High cell-potential and high-rate neutral aqueous supercapacitors using activated biocarbon: In situ electrochemical gas chromatography. <i>Electrochimica Acta</i> , 2019, 313, 31-40.	5.2	9
58	Diffusion of Zirconium (IV) Ions from Coated Thick Zirconium Oxide Shell to the Bulk Structure of Ni-Rich NMC811 Cathode Leading to High-Performance 18650 Cylindrical Li-Ion Batteries. <i>Advanced Materials Technologies</i> , 2022, 7, .	5.8	9
59	Effect of charging protocols on electrochemical performance and failure mechanism of commercial level Ni-rich NMC811 thick electrode. <i>Electrochemistry Communications</i> , 2022, 139, 107309.	4.7	7
60	The Influence of Hydration Energy on Alkali-Earth Intercalated Layered Manganese Oxides as Electrochemical Capacitors. <i>ACS Applied Energy Materials</i> , 2020, 3, 1402-1409.	5.1	6
61	Insight into the unusual intercalation/deintercalation phenomena of alkali cations in the layered manganese oxide for electrochemical capacitors. <i>Journal of Power Sources</i> , 2020, 455, 227969.	7.8	6
62	Asymmetric hybrid energy conversion and storage cell of thin Co_3O_4 and N-doped reduced graphene oxide aerogel films. <i>Electrochimica Acta</i> , 2018, 283, 1125-1133.	5.2	4
63	A Baseline Kinetic Study of Co-Free Layered $\text{Li}_{1+x}(\text{Ni}_{0.5}\text{Mn}_{0.5})\text{O}_2$ Positive Electrode Materials for Lithium-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2021, 168, 110502.	2.9	4
64	High-Performance Supercapacitors of N-Doped Graphene Aerogel and Its Nanocomposites. <i>ECS Transactions</i> , 2017, 77, 591-606.	0.5	3
65	3D CVD Graphene Oxide on Ni Foam towards Hydrogen Evolution Reaction in Acid Electrolytes at Different Concentrations. <i>ECS Transactions</i> , 2018, 85, 49-63.	0.5	3
66	The Protection of Lithium Metal Enabled by LiNO_3 for Lithium-Sulfur Batteries. <i>ECS Transactions</i> , 2020, 97, 827-834.	0.5	3
67	A Single Energy Conversion and Storage Device of Cobalt Oxide Nanosheets and N-Doped Reduced Graphene Oxide Aerogel. <i>ECS Transactions</i> , 2018, 85, 435-447.	0.5	2
68	Manganese Oxide/Reduced Graphene Oxide Nanocomposite for High-Efficient Electrocatalyst towards Oxygen Reduction Reaction. <i>ECS Transactions</i> , 2018, 85, 1265-1276.	0.5	2
69	Lessons Learned from Long-Term Cycling Experiments with Pouch Cells with Li-Rich and Mn-Rich Positive Electrode Materials. <i>Journal of the Electrochemical Society</i> , 2022, 169, 060530.	2.9	2
70	A Novel High-Performance Lithium-Ion Hybrid Capacitor Using Three-Dimensional Nanostructure of N-Doped Graphene Aerogel and Carbon Nanotube Composite. <i>ECS Transactions</i> , 2018, 85, 449-468.	0.5	1
71	Hybrid Energy Conversion and Storage (HECS) Cells of the Composite Materials between Visible-Light Active $\text{Co}(\text{OH})_2$ and UV-Light Active $\text{Ni}(\text{OH})_2$. <i>ECS Transactions</i> , 2018, 85, 1203-1217.	0.5	1
72	Influence of Electrode Density on the Microstructural NCA Positive Electrode for Scalable 18650 Li-Ion Batteries. <i>ECS Transactions</i> , 2020, 97, 143-154.	0.5	1

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73	Addition of Redox Additive to Ionic Liquid Electrolyte for High-Performance Supercapacitors of N-Doped Graphene Aerogel. ECS Transactions, 2018, 85, 419-434.	0.5	0
74	Graphene-Based Materials with Different Morphologies and Structures as Interlayers for High-Performance Lithium-Sulfur Batteries. ECS Transactions, 2018, 85, 285-293.	0.5	0