Nutthaphon Phattharasupakun

List of Publications by Year
in descending order

74 papers	1,654 citations	218677 26 h-index	345221 36 g-index
75 all docs	75 docs citations	75 times ranked	2143 citing authors

#	ARTICLE	IF	CITATIONS
1	The charge density of intercalants inside layered birnessite manganese oxide nanosheets determining Zn-ion storage capability towards rechargeable Zn-ion batteries. Journal of Materials Chemistry A, 2022, 10, 5561-5568.	10.3	11
2	Tracking the Fate of Excess Li in the Synthesis of Various Liy[Ni_{1âˆ’x}Mn_x]O₂ Positive Electrode Materials Under Different Atmospheres. Journal of the Electrochemical Society, 2022, 169, 030538.	2.9	10
3	Mechanism of Action of the Tungsten Dopant in LiNiO₂ Positive Electrode Materials. Advanced Energy Materials, 2022, 12, .	19.5	49
4	Core-shell structure of LiMn2O4 cathode material reduces phase transition and Mn dissolution in Li-ion batteries. Communications Chemistry, 2022, 5, .	4.5	23
5	Lessons Learned from Long-Term Cycling Experiments with Pouch Cells with Li-Rich and Mn-Rich Positive Electrode Materials. Journal of the Electrochemical Society, 2022, 169, 060530.	2.9	2
6	Effect of charging protocols on electrochemical performance and failure mechanism of commercial level Ni-rich NMC811 thick electrode. Electrochemistry Communications, 2022, 139, 107309.	4.7	7
7	Diffusion of Zirconium (IV) Ions from Coated Thick Zirconium Oxide Shell to the Bulk Structure of Niâ€Rich NMC811 Cathode Leading to Highâ€Performance 18650 Cylindrical Liâ€Ion Batteries. Advanced Materials Technologies, 2022, 7, .	5.8	9
8	Enhancing bifunctional electrocatalysts of hollow Co3O4 nanorods with oxygen vacancies towards ORR and OER for Liâ€“O2 batteries. Electrochimica Acta, 2021, 367, 137490.	5.2	49
9	Core-shell Ni-rich NMC-Nanocarbon cathode from scalable solvent-free mechanofusion for high-performance 18650 Li-ion batteries. Energy Storage Materials, 2021, 36, 485-495.	18.0	46
10	Optimization of the Electrode Properties for High-Performance Ni-Rich Li-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 30643-30652.	8.0	13
11	Factors that Affect Capacity in the Low Voltage Kinetic Hindrance Region of Ni-Rich Positive Electrode Materials and Diffusion Measurements from a Reinvented Approach. Journal of the Electrochemical Society, 2021, 168, 070503.	2.9	29
12	Voltage-Dependent Li Kinetics Leads to Charge-Discharge Asymmetry in Co-Free Li-Rich Li_{1.12}Ni_{0.44}Mn_{0.44}O₂ under Conditions without Transition Metal Migration. Journal of the Electrochemical Society, 2021, 168, 090564.	2.9	11
13	Correlating Cation Mixing with Li Kinetics: Electrochemical and Li Diffusion Measurements on Li-Deficient LiNiO₂ and Li-Excess LiNi_{0.5}Mn_{0.5}O₂. Journal of the Electrochemical Society, 2021, 168, 090535.	2.9	24
14	Insight into photoelectrocatalytic mechanisms of bifunctional cobaltite hollow-nanofibers towards oxygen evolution and oxygen reduction reactions for high-energy zinc-air batteries. Electrochimica Acta, 2021, 392, 139022.	5.2	18
15	A Baseline Kinetic Study of Co-Free Layered Li_{1+x}(Ni_{0.5}Mn_{0.5})_{1âˆ’x}O₂ Positive Electrode Materials for Lithium-Ion Batteries. Journal of the Electrochemical Society, 2021, 168, 110502.	2.9	4
16	The Influence of Hydration Energy on Alkali-Earth Intercalated Layered Manganese Oxides as Electrochemical Capacitors. ACS Applied Energy Materials, 2020, 3, 1402-1409.	5.1	6
17	The Protection of Lithium Metal Enabled by LiNO3 for Lithium-Sulfur Batteries. ECS Transactions, 2020, 97, 827-834.	0.5	3
18	Insight into the unusual intercalation/deintercalation phenomena of alkali cations in the layered manganese oxide for electrochemical capacitors. Journal of Power Sources, 2020, 455, 227969.	7.8	6

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19	Cobalt oxysulphide/hydroxide nanosheets with dual properties based on electrochromism and a charge storage mechanism. RSC Advances, 2020, 10, 14154-14160.	3.6	24
20	Rechargeable Photoactive Znâ€Air Batteries Using NiCo₂S₄ as an Efficient Bifunctional Photocatalyst towards OER/ORR at the Cathode. Batteries and Supercaps, 2020, 3, 541-547.	4.7	40
21	Scalable solvent-free mechanofusion and magnesiothermic reduction processes for obtaining carbon nanospheres-encapsulated crystalline silicon anode for Li-ion batteries. Electrochimica Acta, 2020, 352, 136457.	5.2	18
22	Influence of Electrode Density on the Microstructural NCA Positive Electrode for Scalable 18650 Li-Ion Batteries. ECS Transactions, 2020, 97, 143-154.	0.5	1
23	Impact of Al Doping and Surface Coating on the Electrochemical Performances of Li-Rich Mn-Rich Li_{1.11}Ni_{0.33}Mn_{0.56}O₂ Positive Electrode Material. Journal of the Electrochemical Society, 2020, 167, 120531.	2.9	13
24	Cobalt-Free Core-Shell Structure with High Specific Capacity and Long Cycle Life as an Alternative to Li[Ni_{0.8}Mn_{0.1}Co_{0.1}]O₂. Journal of the Electrochemical Society, 2020, 167, 120533.	2.9	15
25	Impact of Cr Doping on the Voltage Fade of Li-Rich Mn-Rich Li_{1.11}Ni_{0.33}Mn_{0.56}O₂ and Li_{1.2}Ni_{0.2}Mn_{0.6}O₂ Positive Electrode Materials. Journal of the Electrochemical Society, 2020, 167, 160545.	2.9	11
26	High-Performance Li-Ion Batteries Using Nickel-Rich Lithium Nickel Cobalt Aluminium Oxideâ€"Nanocarbon Coreâ€"Shell Cathode: In Operando X-ray Diffraction. ACS Applied Materials & Interfaces, 2019, 11, 30719-30727.	8.0	28
27	Thin-Film Photoelectrode of p-Type Ni-Doped Co₃O₄ÂNanosheets for a Single Hybrid Energy Conversion and Storage Cell. Journal of the Electrochemical Society, 2019, 166, A2444-A2452.	2.9	10
28	A single energy conversion and storage cell of nickel-doped cobalt oxide under UV and visible light illumination. Electrochimica Acta, 2019, 328, 135120.	5.2	9
29	Effect of intercalated alkali ions in layered manganese oxide nanosheets as neutral electrochemical capacitors. Chemical Communications, 2019, 55, 1213-1216.	4.1	32
30	High-performance spinel LiMn₂O₄@carbon coreâ€"shell cathode materials for Li-ion batteries. Sustainable Energy and Fuels, 2019, 3, 1988-1994.	4.9	22
31	3D CVD graphene oxide-coated Ni foam as carbo- and electro-catalyst towards hydrogen evolution reaction in acidic solution: In situ electrochemical gas chromatography. Carbon, 2019, 151, 109-119.	10.3	28
32	High cell-potential and high-rate neutral aqueous supercapacitors using activated biocarbon: In situ electrochemical gas chromatography. Electrochimica Acta, 2019, 313, 31-40.	5.2	9
33	Lithium Intercalated-Layered Manganese Oxide and Reduced Graphene Oxide Composite as a Bifunctional Electrocatalyst for ORR and OER. Journal of the Electrochemical Society, 2019, 166, A1543-A1549.	2.9	13
34	Addition of Redox Additive to Ionic Liquid Electrolyte for High-Performance Electrochemical Capacitors of N-Doped Graphene Aerogel. Journal of the Electrochemical Society, 2019, 166, A695-A703.	2.9	11
35	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. Chemical Communications, 2019, 55, 5689-5692.	4.1	32
36	Lightweight Multi-Walled Carbon Nanotube/N-Doped Graphene Aerogel Composite for High-Performance Lithium-Ion Capacitors. Journal of the Electrochemical Society, 2019, 166, A532-A538.	2.9	13

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37	Insight into the effect of additives widely used in lithiumâ€"sulfur batteries. Chemical Communications, 2019, 55, 13951-13954.	4.1	26
38	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. Sustainable Energy and Fuels, 2018, 2, 1305-1311.	4.9	12
39	Charge storage mechanisms of birnessite-type MnO2 nanosheets in Na2SO4 electrolytes with different pH values: In situ electrochemical X-ray absorption spectroscopy investigation. Electrochimica Acta, 2018, 273, 17-25.	5.2	33
40	Layered manganese oxide nanosheets coated on N-doped graphene aerogel for hydrazine detection: Reaction mechanism investigated by in situ electrochemical X-ray absorption spectroscopy. Journal of Electroanalytical Chemistry, 2018, 808, 124-132.	3.8	18
41	Lithium Bond Impact on Lithium Polysulfide Adsorption with Functionalized Carbon Fiber Paper Interlayers for Lithiumâ€"Sulfur Batteries. Journal of Physical Chemistry C, 2018, 122, 7033-7040.	3.1	55
42	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. Electrochimica Acta, 2018, 271, 110-119.	5.2	40
43	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. Journal of the Electrochemical Society, 2018, 165, A609-A617.	2.9	27
44	A new energy conversion and storage device of cobalt oxide nanosheets. Journal of Materials Chemistry A, 2018, 6, 36-40.	10.3	19
45	3D CVD Graphene Oxide on Ni Foam towards Hydrogen Evolution Reaction in Acid Electrolytes at Different Concentrations. ECS Transactions, 2018, 85, 49-63.	0.5	3
46	Insight into the effect of intercalated alkaline cations of layered manganese oxides on the oxygen reduction reaction and oxygen evolution reaction. Chemical Communications, 2018, 54, 8575-8578.	4.1	33
47	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. Carbon, 2018, 139, 945-953.	10.3	34
48	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
49	Asymmetric hybrid energy conversion and storage cell of thin Co3O4 and N-doped reduced graphene oxide aerogel films. Electrochimica Acta, 2018, 283, 1125-1133.	5.2	4
50	A Novel High-Performance Lithium-Ion Hybrid Capacitor Using Three-Dimensional Nanostructure of N-Doped Graphene Aerogel and Carbon Nanotube Composite. ECS Transactions, 2018, 85, 449-468.	0.5	1
51	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
52	A Single Energy Conversion and Storage Device of Cobalt Oxide Nanosheets and N-Doped Reduced Graphene Oxide Aerogel. ECS Transactions, 2018, 85, 435-447.	0.5	2
53	Hybrid Energy Conversion and Storage (HECS) Cells of the Composite Materials between Visible-Light Active Co(OH)2and UV-Light Active Ni(OH)2. ECS Transactions, 2018, 85, 1203-1217.	0.5	1
54	Manganese Oxide/Reduced Graphene Oxide Nanocomposite for High-Efficient Electrocatalyst towards Oxygen Reduction Reaction. ECS Transactions, 2018, 85, 1265-1276.	0.5	2

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55	High-Performance Supercapacitors of N-Doped Graphene Aerogel and Its Nanocomposites with Manganese Oxide and Polyaniline. Journal of the Electrochemical Society, 2018, 165, A1430-A1439.	2.9	19
56	Novel Hybrid Energy Conversion and Storage Cell with Photovoltaic and Supercapacitor Effects in Ionic Liquid Electrolyte. Scientific Reports, 2018, 8, 12192.	3.3	28
57	Environmentally benign non-fluoro deep eutectic solvent and free-standing rice husk-derived bio-carbon based high-temperature supercapacitors. Electrochimica Acta, 2018, 286, 148-157.	5.2	32
58	Sodium-ion diffusion and charge transfer kinetics of sodium-ion hybrid capacitors using bio-derived hierarchical porous carbon. Electrochimica Acta, 2018, 286, 55-64.	5.2	17
59	Transparent supercapacitors of 2 nm ruthenium oxide nanoparticles decorated on a 3D nitrogen-doped graphene aerogel. Sustainable Energy and Fuels, 2018, 2, 1799-1805.	4.9	22
60	Charge storage mechanisms of electrospun Mn₃O₄ nanofibres for high-performance supercapacitors. RSC Advances, 2017, 7, 9958-9963.	3.6	53
61	Core-double shell sulfur@carbon black nanosphere@oxidized carbon nanosheet composites as the cathode materials for Li-S batteries. Electrochimica Acta, 2017, 237, 78-86.	5.2	21
62	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. Electrochimica Acta, 2017, 238, 64-73.	5.2	23
63	A new concept of charging supercapacitors based on the photovoltaic effect. Chemical Communications, 2017, 53, 709-712.	4.1	53
64	A proton-hopping charge storage mechanism of ionic one-dimensional coordination polymers for high-performance supercapacitors. Chemical Communications, 2017, 53, 11786-11789.	4.1	11
65	Antifungal activity of water-stable copper-containing metal-organic frameworks. Royal Society Open Science, 2017, 4, 170654.	2.4	66
66	Turning Carbon Black to Hollow Carbon Nanospheres for Enhancing Charge Storage Capacities of LiMn2O4, LiCoO2, LiNiMnCoO2, and LiFePO4 Lithium-Ion Batteries. ACS Omega, 2017, 2, 3730-3738.	3.5	20
67	Collaborative design of Liâ€“S batteries using 3D N-doped graphene aerogel as a sulfur host and graphitic carbon nitride paper as an interlayer. Sustainable Energy and Fuels, 2017, 1, 1759-1765.	4.9	35
68	Strong adsorption of lithium polysulfides on ethylenediamine-functionalized carbon fiber paper interlayer providing excellent capacity retention of lithium-sulfur batteries. Carbon, 2017, 123, 492-501.	10.3	42
69	Charge storage performances and mechanisms of MnO₂ nanospheres, nanorods, nanotubes and nanosheets. Nanoscale, 2017, 9, 13630-13639.	5.6	74
70	High-Performance Supercapacitors of N-Doped Graphene Aerogel and Its Nanocomposites. ECS Transactions, 2017, 77, 591-606.	0.5	3
71	Chemical Adsorption and Physical Confinement of Polysulfides with the Janus-faced Interlayer for High-performance Lithium-Sulfur Batteries. Scientific Reports, 2017, 7, 17703.	3.3	35
72	Turning conductive carbon nanospheres into nanosheets for high-performance supercapacitors of MnO₂ nanorods. Chemical Communications, 2016, 52, 2585-2588.	4.1	47

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73	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. Materials Today Communications, 2015, 4, 176-185.	1.9	19
74	High-Performance Supercapacitor of Functionalized Carbon Fiber Paper with High Surface Ionic and Bulk Electronic Conductivity: Effect of Organic Functional Groups. Electrochimica Acta, 2015, 176, 504-513.	5.2	74