Kui Xu

List of Publications by Year
in descending order

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49 papers	3,477 citations	159585 30 h-index	214800 47 g-index
49 all docs	49 docs citations	49 times ranked	5035 citing authors

#	Article	IF	Citations
1	Hierarchical NiCo₂S₄@NiFe LDH Heterostructures Supported on Nickel Foam for Enhanced Overall-Water-Splitting Activity. ACS Applied Materials & Interfaces, 2017, 9, 15364-15372.	8.0	468
2	Interface engineering: The Ni(OH) 2 /MoS 2 heterostructure for highly efficient alkaline hydrogen evolution. Nano Energy, 2017, 37, 74-80.	16.0	436
3	NiCo2S4 porous nanotubes synthesis via sacrificial templates: high-performance electrode materials of supercapacitors. CrystEngComm, 2013, 15, 7649.	2.6	285
4	Mutually beneficial Co₃O₄@MoS₂ heterostructures as a highly efficient bifunctional catalyst for electrochemical overall water splitting. Journal of Materials Chemistry A, 2018, 6, 2067-2072.	10.3	178
5	Unraveling the Charge Storage Mechanism of Ti₃C₂T_x MXene Electrode in Acidic Electrolyte. ACS Energy Letters, 2020, 5, 2873-2880.	17.4	129
6	The mechanism of hydrogen adsorption on transition metal dichalcogenides as hydrogen evolution reaction catalyst. Physical Chemistry Chemical Physics, 2017, 19, 10125-10132.	2.8	126
7	Stabilizing the oxygen vacancies and promoting water-oxidation kinetics in cobalt oxides by lower valence-state doping. Nano Energy, 2018, 53, 144-151.	16.0	114
8	Electrochemical study of pseudocapacitive behavior of Ti3C2Tx MXene material in aqueous electrolytes. Energy Storage Materials, 2019, 18, 456-461.	18.0	111
9	Synergistic effect of two actions sites on cobalt oxides towards electrochemical water-oxidation. Nano Energy, 2017, 42, 98-105.	16.0	101
10	Nickel Sulfide Nanoparticles Synthesized by Microwave-assisted Method as Promising Supercapacitor Electrodes: An Experimental and Computational Study. Electrochimica Acta, 2015, 182, 361-367.	5.2	99
11	Intercalation of Glucose in NiMn-Layered Double Hydroxide Nanosheets: an Effective Path Way towards Battery-type Electrodes with Enhanced Performance. Electrochimica Acta, 2016, 216, 35-43.	5.2	98
12	Rapid microwave-assisted synthesis NiMoO4Â·H2O nanoclusters for supercapacitors. Materials Letters, 2013, 108, 164-167.	2.6	89
13	Enhanced adsorption of acidic gases (CO2, NO2 and SO2) on light metal decorated graphene oxide. Physical Chemistry Chemical Physics, 2014, 16, 11031.	2.8	87
14	Metallic Sandwiched-Aerogel Hybrids Enabling Flexible and Stretchable Intelligent Sensor. Nano Letters, 2020, 20, 3449-3458.	9.1	87
15	MXenes as High-Rate Electrodes for Energy Storage. Trends in Chemistry, 2020, 2, 654-664.	8.5	81
16	Different charge-storage mechanisms in disulfide vanadium and vanadium carbide monolayer. Journal of Materials Chemistry A, 2015, 3, 9909-9914.	10.3	76
17	Charge Storage Mechanisms of Single-Layer Graphene in Ionic Liquid. Journal of the American Chemical Society, 2019, 141, 16559-16563.	13.7	67
18	Probing the electrochemical capacitance of MXene nanosheets for high-performance pseudocapacitors. Physical Chemistry Chemical Physics, 2016, 18, 4460-4467.	2.8	65

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19	Charging/Discharging Dynamics in Two-Dimensional Titanium Carbide (MXene) Slit Nanopore: Insights from molecular dynamic study. Electrochimica Acta, 2016, 196, 75-83.	5.2	59
20	Enhanced electrochemical performance by facile oxygen vacancies from lower valence-state doping for ramsdellite-MnO₂. Journal of Materials Chemistry A, 2015, 3, 12461-12467.	10.3	54
21	Activation Mechanism Study of Dandelion-Like Co₉S₈Nanotubes in Supercapacitors. Journal of the Electrochemical Society, 2014, 161, A996-A1000.	2.9	53
22	Fire-safe, mechanically strong and tough thermoplastic Polyurethane/MXene nanocomposites with exceptional smoke suppression. Materials Today Physics, 2022, 22, 100607.	6.0	52
23	Electrochemical double layer near polar reduced graphene oxide electrode: Insights from molecular dynamic study. Electrochimica Acta, 2015, 166, 142-149.	5.2	51
24	Tracking Ionic Rearrangements and Interpreting Dynamic Volumetric Changes in Twoâ€Dimensional Metal Carbide Supercapacitors: A Molecular Dynamics Simulation Study. ChemSusChem, 2018, 11, 1892-1899.	6.8	50
25	Computational Insights into Charge Storage Mechanisms of Supercapacitors. Energy and Environmental Materials, 2020, 3, 235-246.	12.8	49
26	Stretchable and Ultrasensitive Intelligent Sensors for Wireless Humanâ€“Machine Manipulation. Advanced Functional Materials, 2021, 31, 2009466.	14.9	41
27	Commensurate lattice constant dependent thermal conductivity of misoriented bilayer graphene. Carbon, 2018, 138, 451-457.	10.3	38
28	Unraveling the different charge storage mechanism in T and H phases of MoS2. Electrochimica Acta, 2016, 217, 1-8.	5.2	37
29	Effects of functional groups and anion size on the charging mechanisms in layered electrode materials. Energy Storage Materials, 2020, 33, 460-469.	18.0	36
30	How Prussian Blue Analogues Can Be Stable in Concentrated Aqueous Electrolytes. ACS Energy Letters, 2022, 7, 1672-1678.	17.4	32
31	Robust self-gated-carriers enabling highly sensitive wearable temperature sensors. Applied Physics Reviews, 2021, 8, .	11.3	31
32	Prediction of Tâ€•and Hâ€Phase Twoâ€Dimensional Transitionâ€Metal Carbides/Nitrides and Their Semiconductingâ€“Metallic Phase Transition. ChemPhysChem, 2017, 18, 1897-1902.	2.1	30
33	Lithium diffusion in silicon and induced structure disorder: A molecular dynamics study. AIP Advances, 2013, 3, .	1.3	19
34	Promoted Electrochemical Performance of Î²-MnO₂ through Surface Engineering. ACS Applied Materials & Interfaces, 2017, 9, 15176-15181.	8.0	18
35	Kust-I: a high-performance two-dimensional graphene-based material for seawater desalination. Journal of Materials Chemistry A, 2021, 9, 21158-21166.	10.3	18
36	Electric field induced orientation-selective unzipping of zigzag carbon nanotubes upon oxidation. Physical Chemistry Chemical Physics, 2013, 15, 6431.	2.8	17

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37	Synthesis of 2D/3D carbon hybrids by heterogeneous space-confined effect for electrochemical energy storage. Journal of Materials Chemistry A, 2017, 5, 19175-19183.	10.3	15
38	A Survey of Artificial Intelligence Techniques Applied in Energy Storage Materials R&D. Frontiers in Energy Research, 2020, 8, .	2.3	15
39	Robust interphase on both anode and cathode enables stable aqueous lithium-ion battery with coulombic efficiency exceeding 99%. Energy Storage Materials, 2022, 46, 577-582.	18.0	14
40	The effective adsorption and decomposition of N₂O on Al-decorated graphene oxide under electric field. RSC Advances, 2015, 5, 18761-18766.	3.6	12
41	Ultrafast Microwave Polarizing Electrons to Form Vertically Aligned Metal Hybrids as Lithiophilic Buffer for Lithium-Metal Batteries. ACS Applied Materials & Interfaces, 2021, 13, 16594-16601.	8.0	9
42	Achieving ultrahigh electrochemical performance by surface design and nanoconfined water manipulation. National Science Review, 2022, 9, .	9.5	9
43	Development Status and Prospects of Artificial Intelligence in the Field of Energy Conversion Materials. Frontiers in Energy Research, 2020, 8, .	2.3	7
44	Light-Controlled Reconfigurable Optical Synapse Based on Carbon Nanotubes/2D Perovskite Heterostructure for Image Recognition. ACS Applied Materials & Interfaces, 2022, 14, 28221-28229.	8.0	6
45	Tracking Ionic Rearrangements and Interpreting Dynamic Volumetric Changes in Twoâ€Dimensional Metal Carbide Supercapacitors: A Molecular Dynamics Simulation Study. ChemSusChem, 2018, 11, 1889-1889.	6.8	3
46	Achieving Electronic Engineering of Vanadium Oxide-Based 3D Lithiophilic Sandwiched-Aerogel Framework for Ultrastable Lithium Metal Batteries. ACS Applied Materials & Interfaces, 2022, 14, 33306-33314.	8.0	3
47	Comment to the letter to the editor from Costentin etÂal. Entitled â€œOhmic drop correction in electrochemical techniques. Multiple potential step chrono-amperometry at the test benchâ€• Energy Storage Materials, 2020, 24, 4-5.	18.0	1
48	Stepped Porous Carbonâ€Multilayer Graphene@Fe₃C/Fe₃N Membrane to Inhibit the Polysulfides Shuttle for Highâ€Performance Lithiumâ€“Sulfur Batteries. Advanced Sustainable Systems, 2022, 6, .	5.3	1
49	The application of genetic algorithm for lattice matching of composite structure. , 2013, , .		0