

# Munkhbayar Batmunkh

## 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.

91  
papers

3,277  
citations

33  
h-index

55  
g-index

98  
ext. papers

4,003  
ext. citations

9.5  
avg, IF

5.88  
L-index

#	Paper	IF	Citations
91	Scalable Spray Drying Production of Amorphous V O -EGO 2D Heterostructured Xerogels for High-Rate and High-Capacity Aqueous Zinc Ion Batteries.. <i>Small</i> , <b>2022</b> , 18, e2105761	11	4
90	Rechargeable sunlight-promoted Zn-air battery constructed by bifunctional oxygen photoelectrodes: Energy-band switching between ZnO/Cu <sub>2</sub> O and ZnO/CuO in charge-discharge cycles. <i>Chemical Engineering Journal</i> , <b>2021</b> , 133559	14.7	4
89	Low-overpotential electrochemical ammonia synthesis using BiOCl-modified 2D titanium carbide MXene. <i>Chinese Chemical Letters</i> , <b>2021</b> , 33, 394-394	8.1	9
88	Facile Synthesis of Boron-Doped Reduced Electrochemical Graphene Oxide for Sodium Ion Battery Anode. <i>Jom</i> , <b>2021</b> , 73, 2531	2.1	0
87	Enhanced electrochemical production and facile modification of graphite oxide for cost-effective sodium ion battery anodes. <i>Carbon</i> , <b>2021</b> , 177, 71-78	10.4	14
86	Doping Strategies in Sb S Thin Films for Solar Cells. <i>Small</i> , <b>2021</b> , 17, e2100241	11	18
85	Breaking Platinum Nanoparticles to Single-Atomic Pt-C Co-catalysts for Enhanced Solar-to-Hydrogen Conversion. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 2541-2547	16.4	22
84	Breaking Platinum Nanoparticles to Single-Atomic Pt-C <sub>4</sub> Co-catalysts for Enhanced Solar-to-Hydrogen Conversion. <i>Angewandte Chemie</i> , <b>2021</b> , 133, 2571-2577	3.6	3
83	Ambient Fabrication of Organic-Inorganic Hybrid Perovskite Solar Cells.. <i>Small Methods</i> , <b>2021</b> , 5, e2000744.8	44.8	23
82	1D-2D Synergistic MXene-Nanotubes Hybrids for Efficient Perovskite Solar Cells. <i>Small</i> , <b>2021</b> , 17, e2101925	22.5	11
81	Highly Dispersed Ru Nanoparticles on Boron-Doped Ti C T (MXene) Nanosheets for Synergistic Enhancement of Electrocatalytic Hydrogen Evolution. <i>Small</i> , <b>2021</b> , 17, e2102218	11	12
80	Cesium-doped Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene for efficient and thermally stable perovskite solar cells. <i>Cell Reports Physical Science</i> , <b>2021</b> , 2, 100598	6.1	6
79	Evolution of interfacial coupling interaction of Ni-Ru species for pH-universal water splitting. <i>Chemical Engineering Journal</i> , <b>2021</b> , 426, 130762	14.7	8
78	Smart Solar-Metal-Air Batteries Based on BiOCl Photocorrosion for Monolithic Solar Energy Conversion and Storage. <i>Small</i> , <b>2021</b> , e2105668	11	1
77	Nitrogen-doped phosphorene for electrocatalytic ammonia synthesis. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 15875-15883	13	50
76	Recent Advances in Perovskite-Based Building-Integrated Photovoltaics. <i>Advanced Materials</i> , <b>2020</b> , 32, e2000631	24	37
75	Efficiency and stability enhancement of perovskite solar cells using reduced graphene oxide derived from earth-abundant natural graphite.. <i>RSC Advances</i> , <b>2020</b> , 10, 9133-9139	3.7	17

74	Surface oxidized two-dimensional antimonene nanosheets for electrochemical ammonia synthesis under ambient conditions. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 4735-4739	13	37
73	Multifunctional nanostructured materials for next generation photovoltaics. <i>Nano Energy</i> , <b>2020</b> , 70, 104480	13.1	25
72	Surface Engineering to Reduce the Interfacial Resistance for Enhanced Photocatalytic Water Oxidation. <i>ACS Catalysis</i> , <b>2020</b> , 10, 8742-8750	13.1	15
71	Fast and cost-effective room temperature synthesis of high quality graphene oxide with excellent structural intactness. <i>Sustainable Materials and Technologies</i> , <b>2020</b> , 25, e00198	5.3	0
70	Few-layer black phosphorus and boron-doped graphene based heteroelectrocatalyst for enhanced hydrogen evolution. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 20446-20452	13	12
69	Unsaturated p-Metal-Based Metal-Organic Frameworks for Selective Nitrogen Reduction under Ambient Conditions. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 44830-44839	9.5	27
68	A luminescent terbium coordination complex as multifunctional sensing platform. <i>Talanta</i> , <b>2020</b> , 208, 120363	6.2	7
67	Emerging 2D Layered Materials for Perovskite Solar Cells. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 1902253	11.8	40
66	Microwave-assisted synthesis of black phosphorus quantum dots: efficient electrocatalyst for oxygen evolution reaction. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 12974-12978	13	40
65	Origin of Performance Enhancement in TiO <sub>2</sub> -Carbon Nanotube Composite Perovskite Solar Cells. <i>Small Methods</i> , <b>2019</b> , 3, 1900164	12.8	26
64	Recent Advances in Applications of Sorted Single-Walled Carbon Nanotubes. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1902273	15.6	44
63	Surface-Halogenation-Induced Atomic-Site Activation and Local Charge Separation for Superb CO Photoreduction. <i>Advanced Materials</i> , <b>2019</b> , 31, e1900546	24	249
62	Zinc-Nickel-Cobalt ternary hydroxide nanoarrays for high-performance supercapacitors. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 11826-11835	13	72
61	Electrically Sorted Single-Walled Carbon Nanotubes-Based Electron Transporting Layers for Perovskite Solar Cells. <i>iScience</i> , <b>2019</b> , 14, 100-112	6.1	22
60	Efficient Production of Phosphorene Nanosheets via Shear Stress Mediated Exfoliation for Low-Temperature Perovskite Solar Cells. <i>Small Methods</i> , <b>2019</b> , 3, 1800521	12.8	42
59	Nahinfrarotaktive Bleichalkogenid-Quantenpunkte: Herstellung, postsynthetischer Ligandenaustausch und Anwendungen in Solarzellen. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 5256-5279	3.6	1
58	Near-Infrared Active Lead Chalcogenide Quantum Dots: Preparation, Post-Synthesis Ligand Exchange, and Applications in Solar Cells. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 5202-5224	16.4	47
57	Structural engineering to maintain the superior capacitance of molybdenum oxides at ultrahigh mass loadings. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 23941-23948	13	25

56	Ti3C2Tx (MXene)-Silicon Heterojunction for Efficient Photovoltaic Cells. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1901063	21.8	46
55	Ruthenium(III) polyethyleneimine complexes for bifunctional ammonia production and biomass upgrading. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 25433-25440	13	27
54	Ambient air synthesis of multi-layer CVD graphene films for low-cost, efficient counter electrode material in dye-sensitized solar cells. <i>FlatChem</i> , <b>2018</b> , 8, 1-8	5.1	5
53	Electrocatalytic Activity of a 2D Phosphorene-Based Heteroelectrocatalyst for Photoelectrochemical Cells. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 2644-2647	16.4	39
52	Electrocatalytic Activity of a 2D Phosphorene-Based Heteroelectrocatalyst for Photoelectrochemical Cells. <i>Angewandte Chemie</i> , <b>2018</b> , 130, 2674-2677	3.6	8
51	Pt Nanocluster Co-Catalysts for Photocatalytic Water Splitting. <i>Journal of Carbon Research</i> , <b>2018</b> , 4, 64	3.3	3
50	Synthesis, purification, properties and characterization of sorted single-walled carbon nanotubes. <i>Nanoscale</i> , <b>2018</b> , 10, 22087-22139	7.7	45
49	Use of Carbon Nanotubes (CNTs) in Third-Generation Solar Cells <b>2018</b> , 551-609		
48	Pyramid-Textured Antireflective Silicon Surface In Graphene Oxide/Single-Wall Carbon Nanotube Silicon Heterojunction Solar Cells. <i>Energy and Environmental Materials</i> , <b>2018</b> , 1, 232-240	13	10
47	p-Type BP nanosheet photocatalyst with AQE of 3.9% in the absence of a noble metal cocatalyst: investigation and elucidation of photophysical properties. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 18403-18408	13	18
46	TiO2 nanofiber photoelectrochemical cells loaded with sub-12nm AuNPs: Size dependent performance evaluation. <i>Materials Today Energy</i> , <b>2018</b> , 9, 254-263	7	17
45	Carbon Nanotubes in TiO Nanofiber Photoelectrodes for High-Performance Perovskite Solar Cells. <i>Advanced Science</i> , <b>2017</b> , 4, 1600504	13.6	65
44	Vortex Fluidics Improved Morphology of CH3NH3PbI3-xClx Films for Perovskite Solar Cells. <i>ChemistrySelect</i> , <b>2017</b> , 2, 369-374	1.8	4
43	Sulfur-Doped Graphene with Iron Pyrite (FeS2) as an Efficient and Stable Electrocatalyst for the Iodine Reduction Reaction in Dye-Sensitized Solar Cells. <i>Solar Rrl</i> , <b>2017</b> , 1, 1700011	7.1	20
42	Application of a hole transporting organic interlayer in graphene oxide/single walled carbon nanotube silicon heterojunction solar cells. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 8624-8634	13	24
41	Single-Walled Carbon Nanotubes Enhance the Efficiency and Stability of Mesoscopic Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 19945-19954	9.5	41
40	Nitrogen-Doped CNx/CNTs Heteroelectrocatalysts for Highly Efficient Dye-Sensitized Solar Cells. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1602276	21.8	88
39	Insights into chemical doping to engineer the carbon nanotube/silicon photovoltaic heterojunction interface. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 24247-24256	13	10

38	Efficiency Enhancement of Single-Walled Carbon Nanotube-Silicon Heterojunction Solar Cells Using Microwave-Exfoliated Few-Layer Black Phosphorus. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1704488	15.6	36
37	Application of Hole-Transporting Materials as the Interlayer in Graphene Oxide/Single-Wall Carbon Nanotube Silicon Heterojunction Solar Cells. <i>Australian Journal of Chemistry</i> , <b>2017</b> , 70, 1202	1.2	6
36	Plasmonic Gold Nanostars Incorporated into High-Efficiency Perovskite Solar Cells. <i>ChemSusChem</i> , <b>2017</b> , 10, 3750-3753	8.3	30
35	Efficient and Fast Synthesis of Few-Layer Black Phosphorus via Microwave-Assisted Liquid-Phase Exfoliation. <i>Small Methods</i> , <b>2017</b> , 1, 1700260	12.8	47
34	Back Cover: Solar RRL 3-4 2017. <i>Solar Rrl</i> , <b>2017</b> , 1, 1770113	7.1	
33	Use of Carbon Nanotubes in Third-Generation Solar Cells <b>2017</b> , 201-249		3
32	Phosphorene and Phosphorene-Based Materials - Prospects for Future Applications. <i>Advanced Materials</i> , <b>2016</b> , 28, 8586-8617	24	283
31	Synthesis of ultra-long hierarchical ZnO whiskers in a hydrothermal system for dye-sensitized solar cells. <i>RSC Advances</i> , <b>2016</b> , 6, 109406-109413	3.7	10
30	Solution processed graphene structures for perovskite solar cells. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 2605-2616	13	62
29	Tin Oxide Light-Scattering Layer for Titania Photoanodes in Dye-Sensitized Solar Cells. <i>Energy Technology</i> , <b>2016</b> , 4, 959-966	3.5	10
28	Incorporation of graphene into SnO <sub>2</sub> photoanodes for dye-sensitized solar cells. <i>Applied Surface Science</i> , <b>2016</b> , 387, 690-697	6.7	31
27	Carbonaceous Dye-Sensitized Solar Cell Photoelectrodes. <i>Advanced Science</i> , <b>2015</b> , 2, 1400025	13.6	37
26	Carbon Nanotubes for Dye-Sensitized Solar Cells. <i>Small</i> , <b>2015</b> , 11, 2963-89	11	103
25	Solar Power: Carbonaceous Dye-Sensitized Solar Cell Photoelectrodes (Adv. Sci. 3/2015). <i>Advanced Science</i> , <b>2015</b> , 2,	13.6	78
24	Dye-sensitized solar cell counter electrodes based on carbon nanotubes. <i>ChemPhysChem</i> , <b>2015</b> , 16, 53-65.2	6.2	67
23	Nanocarbons for mesoscopic perovskite solar cells. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 9020-9031	13	88
22	A numerical investigation on LNG flow and heat transfer characteristic in heat exchanger. <i>International Journal of Heat and Mass Transfer</i> , <b>2014</b> , 68, 110-118	4.9	15
21	Effects of macro and micro roughness in forced convective heat transfer. <i>International Communications in Heat and Mass Transfer</i> , <b>2014</b> , 50, 77-84	5.8	6

20	Experimental investigation of the mechanical grinding effect on graphene structure. <i>RSC Advances</i> , <b>2014</b> , 4, 2495-2500	3.7	13
19	Analysis of pressure fluctuations to evaluate thermal performance of oscillating heat pipe. <i>Energy</i> , <b>2014</b> , 70, 135-142	7.9	19
18	Thermal Conductivity of TiO <sub>2</sub> Nanoparticles Based Aqueous Nanofluids with an Addition of a Modified Silver Particle. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2014</b> , 53, 8445-8451	3.9	111
17	Synthesis of a graphene tungsten composite with improved dispersibility of graphene in an ethanol solution and its use as a counter electrode for dye-sensitized solar cells. <i>Journal of Power Sources</i> , <b>2013</b> , 230, 207-217	8.9	48
16	Effect of functionalized MWCNTs/water nanofluids on thermal resistance and pressure fluctuation characteristics in oscillating heat pipe. <i>International Communications in Heat and Mass Transfer</i> , <b>2013</b> , 48, 93-98	5.8	33
15	Effect of the collision medium size on thermal performance of silver nanoparticles based aqueous nanofluids. <i>Composites Part B: Engineering</i> , <b>2013</b> , 54, 383-390	10	10
14	Surfactant-free dispersion of silver nanoparticles into MWCNT-aqueous nanofluids prepared by one-step technique and their thermal characteristics. <i>Ceramics International</i> , <b>2013</b> , 39, 6415-6425	5.1	150
13	Highly productive synthesis process of well dispersed Cu <sub>2</sub> O and Cu/Cu <sub>2</sub> O nanoparticles and its thermal characterization. <i>Materials Chemistry and Physics</i> , <b>2013</b> , 141, 636-642	4.4	85
12	Influence of dry and wet ball milling on dispersion characteristics of the multi-walled carbon nanotubes in aqueous solution with and without surfactant. <i>Powder Technology</i> , <b>2013</b> , 234, 132-140	5.2	113
11	Effect of N719 Dye Adsorption Into Composition of Different Sized TiO <sub>2</sub> Films for Photovoltaic Performance of the Dye-Sensitized Solar Cells. <i>Nanoscience and Nanotechnology Letters</i> , <b>2013</b> , 5, 741-749	0.8	4
10	An experimental study of the planetary ball milling effect on dispersibility and thermal conductivity of MWCNTs-based aqueous nanofluids. <i>Materials Research Bulletin</i> , <b>2012</b> , 47, 4187-4196	5.1	28
9	Effect of grinding speed changes on dispersibility of the treated multi-walled carbon nanotubes in aqueous solution and its thermal characteristics. <i>Chemical Engineering and Processing: Process Intensification</i> , <b>2012</b> , 61, 36-41	3.7	22
8	Investigation of Al <sub>2</sub> O <sub>3</sub> -MWCNTs hybrid dispersion in water and their thermal characterization. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2012</b> , 12, 4553-9	1.3	115
7	Photovoltaic performance of dye-sensitized solar cells with various MWCNT counter electrode structures produced by different coating methods. <i>Electrochimica Acta</i> , <b>2012</b> , 80, 100-107	6.7	40
6	Grinding characteristic of multi-walled carbon nanotubes-alumina composite particle. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , <b>2012</b> , 27, 1009-1013	1	2
5	Sedimentation Study and Dispersion Behavior of Al <sub>2</sub> O <sub>3</sub> /TiO <sub>2</sub> Nanofluids with Dependence of Time. <i>Advanced Science Letters</i> , <b>2012</b> , 6, 96-100	0.1	16
4	The Ball Milling with Various Rotation Speeds Assisted to Dispersion of the Multi-Walled Carbon Nanotubes. <i>Nanoscience and Nanotechnology Letters</i> , <b>2012</b> , 4, 20-29	0.8	12
3	Integrated Full-Spectrum Solar Energy Catalysis for Zero-Emission Ethylene Production from Bioethanol. <i>Advanced Functional Materials</i> , 2110026	15.6	2

2	Elemental 2D Materials: Solution-Processed Synthesis and Applications in Electrochemical Ammonia Production. <i>Advanced Functional Materials</i> ,2107280	15.6	4
1	Exfoliated 2D Antimonene-Based Structures for Light-Harvesting Photoactive Layer of Highly Stable Solar Cells. <i>Small Structures</i> ,2200038	8.7	1