

# Huachao Yang

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6752198/publications.pdf>

Version: 2024-02-01

48  
papers

1,899  
citations

257101

24  
h-index

253896

43  
g-index

50  
all docs

50  
docs citations

50  
times ranked

2782  
citing authors

#	ARTICLE	IF	CITATIONS
1	Green preparation of reduced graphene oxide for sensing and energy storage applications. Scientific Reports, 2014, 4, 4684.	1.6	433
2	Multifunctional Solar Waterways: Plasma-Enabled Self-Cleaning Nanoarchitectures for Energy-Efficient Desalination. Advanced Energy Materials, 2019, 9, 1901286.	10.2	109
3	High-Mass-Loading Porous Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> Films for Ultrahigh-Rate Pseudocapacitors. ACS Energy Letters, 2020, 5, 2266-2274.	8.8	88
4	Density functional theory calculations of NO <sub>2</sub> and H <sub>2</sub> S adsorption on the group 10 transition metal (Ni, Pd and Pt) decorated graphene. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 109, 156-163.	1.3	86
5	Graphene Array-Based Anti-fouling Solar Vapour Gap Membrane Distillation with High Energy Efficiency. Nano-Micro Letters, 2019, 11, 51.	14.4	79
6	Edge effects in vertically-oriented graphene based electric double-layer capacitors. Journal of Power Sources, 2016, 324, 309-316.	4.0	75
7	Design of Supercapacitor Electrodes Using Molecular Dynamics Simulations. Nano-Micro Letters, 2018, 10, 33.	14.4	73
8	Three-dimensional hollow urchin-like MnO <sub>2</sub> for enhanced catalytic activity towards toluene decomposition in post-plasma catalysis. Chemical Engineering Journal, 2020, 402, 126154.	6.6	67
9	MXene-Based Electrodes for Supercapacitor Energy Storage. Energy & Fuels, 2022, 36, 2390-2406.	2.5	67
10	Solar-Enhanced Plasma-Catalytic Oxidation of Toluene over a Bifunctional Graphene Fin Foam Decorated with Nanofin-like MnO <sub>2</sub> . ACS Catalysis, 2020, 10, 4420-4432.	5.5	64
11	Scalable Production of Integrated Graphene Nanoarchitectures for Ultrafast Solar-Thermal Conversion and Vapor Generation. Matter, 2019, 1, 1017-1032.	5.0	60
12	Temperature dependence of ion diffusion coefficients in NaCl electrolyte confined within graphene nanochannels. Physical Chemistry Chemical Physics, 2017, 19, 7678-7688.	1.3	52
13	Molecular Origin of Electric Double-Layer Capacitance at Multilayer Graphene Edges. Journal of Physical Chemistry Letters, 2017, 8, 153-160.	2.1	52
14	Kinetic-Dominated Charging Mechanism within Representative Aqueous Electrolyte-based Electric Double-Layer Capacitors. Journal of Physical Chemistry Letters, 2017, 8, 3703-3710.	2.1	46
15	Ultrathick MoS <sub>2</sub> Films with Exceptionally High Volumetric Capacitance. Advanced Energy Materials, 2022, 12, .	10.2	44
16	Molecular Insights into Aqueous NaCl Electrolytes Confined within Vertically-oriented Graphenes. Scientific Reports, 2015, 5, 14652.	1.6	43
17	Superstructure-Enabled Anti-Fouling Membrane for Efficient Photothermal Distillation. ACS Sustainable Chemistry and Engineering, 2019, 7, 20151-20158.	3.2	41
18	Rational Design of 2D Manganese Phosphate Hydrate Nanosheets as Pseudocapacitive Electrodes. ACS Energy Letters, 2020, 5, 23-30.	8.8	37

#	ARTICLE	IF	CITATIONS
19	Spill-SOS: Self-Pumping Siphon-Capillary Oil Recovery. <i>ACS Nano</i> , 2019, 13, 13027-13036.	7.3	34
20	Plasma-Made Graphene Nanostructures with Molecularly Dispersed F and Na Sites for Solar Desalination of Oil-Contaminated Seawater with Complete In-Water and In-Air Oil Rejection. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 38512-38521.	4.0	32
21	Anion-kinetics-selective graphene anode and cation-energy-selective MXene cathode for high-performance capacitive deionization. <i>Energy Storage Materials</i> , 2022, 50, 395-406.	9.5	32
22	Influence of wettability on the electrolyte electrosorption within graphene-like nonconfined and confined space. <i>International Journal of Heat and Mass Transfer</i> , 2019, 133, 416-425.	2.5	27
23	Tree-inspired radially aligned, bimodal graphene frameworks for highly efficient and isotropic thermal transport. <i>Nanoscale</i> , 2019, 11, 21249-21258.	2.8	26
24	Reliability of Constant Charge Method for Molecular Dynamics Simulations on EDLCs in Nanometer and Sub-Nanometer Spaces. <i>ChemElectroChem</i> , 2017, 4, 2486-2493.	1.7	25
25	Enhanced plasma-catalytic decomposition of toluene over Co-Ce binary metal oxide catalysts with high energy efficiency. <i>RSC Advances</i> , 2019, 9, 7447-7456.	1.7	25
26	High-performance water purification and desalination by solar-driven interfacial evaporation and photocatalytic VOC decomposition enabled by hierarchical TiO <sub>2</sub> -CuO nanoarchitecture. <i>International Journal of Energy Research</i> , 2022, 46, 1313-1326.	2.2	21
27	Hierarchical, Vertically-Oriented Carbon Nanowall Foam Supercapacitor using Room Temperature Ionic Liquid Mixture for AC Line Filtering with Ultrahigh Energy Density. <i>ChemElectroChem</i> , 2019, 6, 2167-2173.	1.7	20
28	Bifunctional sandwich structure of vertically-oriented graphenes and boron nitride nanosheets for thermal management of LEDs and Li-ion battery. <i>Applied Thermal Engineering</i> , 2019, 150, 1016-1027.	3.0	16
29	Photo-electric capacitive deionization enabled by solar-driven nano-ionics on the edges of plasma-made vertical graphenes. <i>Chemical Engineering Journal</i> , 2021, 422, 130156.	6.6	13
30	Mutualistic decomposition pathway of formaldehyde on O-predosed $\gamma$ -MnO <sub>2</sub> . <i>Applied Surface Science</i> , 2019, 498, 143784.	3.1	12
31	Well-Aligned Hierarchical Graphene-Based Electrodes for Pseudocapacitors with Outstanding Low-Temperature Stability. <i>ChemElectroChem</i> , 2019, 6, 2788-2795.	1.7	11
32	Cost-effective, environmentally-sustainable and scale-up synthesis of vertically oriented graphenes from waste oil and its supercapacitor applications. <i>Waste Disposal &amp; Sustainable Energy</i> , 2021, 3, 31-39.	1.1	11
33	Substrate Effects in Graphene-Based Electric Double-Layer Capacitors: The Pivotal Interplays between Ions and Solvents. <i>ChemElectroChem</i> , 2017, 4, 2966-2974.	1.7	10
34	Multi-linear antenna microwave plasma assisted large-area growth of 6 Å–6 in.2 vertically oriented graphenes with high growth rate. <i>Review of Scientific Instruments</i> , 2020, 91, 076105.	0.6	10
35	Combinatorial atomistic-to-AI prediction and experimental validation of heating effects in 350 F supercapacitor modules. <i>International Journal of Heat and Mass Transfer</i> , 2021, 171, 121075.	2.5	10
36	Highly Thermo-Conductive Three-Dimensional Graphene Aqueous Medium. <i>Nano-Micro Letters</i> , 2020, 12, 138.	14.4	7

#	ARTICLE	IF	CITATIONS
37	Solar Energy Conversion: Multifunctional Solar Waterways: Plasma-Enabled Self-Cleaning Nanoarchitectures for Energy-Efficient Desalination (Adv. Energy Mater. 30/2019). Advanced Energy Materials, 2019, 9, 1970119.	10.2	6
38	Ion Dynamics of Water in Salt Electrolyte with Organic Solvents in Nanoporous Supercapacitor Electrodes. ChemElectroChem, 2020, 7, 2048-2054.	1.7	6
39	Aligned Ti3C2TX Aerogel with High Rate Performance, Power Density and Sub-Zero-Temperature Stability. Energies, 2022, 15, 1191.	1.6	6
40	Re-carbon, up-carbon, de-carbon: Plasma-electrified roll-to-roll cleaner production of vertical graphenes and syngas from greenhouse gas mixes. Carbon, 2022, 197, 301-310.	5.4	6
41	Covalently interconnected carbon nanotubes for enhanced charge transport in pseudocapacitors. Physica Status Solidi (B): Basic Research, 2015, 252, 2236-2244.	0.7	3
42	Hierarchical Petal-on-Petal MnO <sub>2</sub> /Vertical Graphene Foam for Postplasma Catalytic Decomposition of Toluene with High Efficiency and Ultralow Pressure Drop. Industrial & Engineering Chemistry Research, 0, , .	1.8	3
43	Tuning and monitoring of nitrogen dioxide fixation on Cu decorated graphene: a density functional theory study. Journal of Physics Condensed Matter, 2020, 32, 355001.	0.7	3
44	Sensing mechanism of the nano-confined space constructed by graphene. Nanotechnology, 2021, 32, 375502.	1.3	2
45	Regulation of Electrode-Electrolyte Interactions for Improved Heat Recovery of a Thermo-Induced Electric Double-Layer Capacitor. Energy & Fuels, 2022, 36, 3304-3312.	2.5	2
46	DC and Microwave Plasmas for Synthesis of Vertically Oriented Graphene. IEEE Transactions on Plasma Science, 2014, 42, 2796-2797.	0.6	1
47	Reliability of Constant Charge Method for Molecular Dynamics Simulations on EDLCs in Nanometer and Sub-Nanometer Spaces. ChemElectroChem, 2017, 4, 2427-2427.	1.7	1
48	Hierarchical, Vertically-Oriented Carbon Nanowall Foam Supercapacitor Using Room Temperature Ionic Liquid Mixture for AC Line Filtering with Ultrahigh Energy Density. ChemElectroChem, 2019, 6, 2123-2123.	1.7	1