

# Hong-Ping Zhang

## List of Publications by Year in descending order

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82  
papers

4,418  
citations

159358

30  
h-index

106150

65  
g-index

83  
all docs

83  
docs citations

83  
times ranked

6261  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mussel-Inspired Adhesive and Tough Hydrogel Based on Nanoclay Confined Dopamine Polymerization. ACS Nano, 2017, 11, 2561-2574.	7.3	749
2	Tough, self-healable and tissue-adhesive hydrogel with tunable multifunctionality. NPG Asia Materials, 2017, 9, e372-e372.	3.8	441
3	Polydopamine Nanoparticles Modulating Stimuli-Responsive PNIPAM Hydrogels with Cell/Tissue Adhesiveness. ACS Applied Materials & Interfaces, 2016, 8, 29088-29100.	4.0	227
4	Mussel-Inspired Tissue-Adhesive Hydrogel Based on the Polydopamine-Chondroitin Sulfate Complex for Growth-Factor-Free Cartilage Regeneration. ACS Applied Materials & Interfaces, 2018, 10, 28015-28026.	4.0	227
5	2D Metal Organic Framework Nanosheet: A Universal Platform Promoting Highly Efficient Visible-Light-Induced Hydrogen Production. Advanced Energy Materials, 2019, 9, 1803402.	10.2	200
6	Conductive and Tough Hydrogels Based on Biopolymer Molecular Templates for Controlling in Situ Formation of Polypyrrole Nanorods. ACS Applied Materials & Interfaces, 2018, 10, 36218-36228.	4.0	181
7	Mussel-Inspired Electroactive and Antioxidative Scaffolds with Incorporation of Polydopamine-Reduced Graphene Oxide for Enhancing Skin Wound Healing. ACS Applied Materials & Interfaces, 2019, 11, 7703-7714.	4.0	172
8	DFT study of adsorption and dissociation behavior of H <sub>2</sub> S on Fe-doped graphene. Applied Surface Science, 2014, 317, 511-516.	3.1	135
9	Flexible, Free-Standing TiO <sub>2</sub> -Graphene-Polypyrrole Composite Films as Electrodes for Supercapacitors. Journal of Physical Chemistry C, 2015, 119, 3903-3910.	1.5	126
10	Density functional theory calculations on the adsorption of formaldehyde and other harmful gases on pure, Ti-doped, or N-doped graphene sheets. Applied Surface Science, 2013, 283, 559-565.	3.1	113
11	Biomimetic Mineralized Hierarchical Graphene Oxide/Chitosan Scaffolds with Adsorbability for Immobilization of Nanoparticles for Biomedical Applications. ACS Applied Materials & Interfaces, 2016, 8, 1707-1717.	4.0	113
12	A Mussel-Inspired Persistent ROS-Scavenging, Electroactive, and Osteoinductive Scaffold Based on Electrochemical-Driven In Situ Nanoassembly. Small, 2019, 15, e1805440.	5.2	95
13	Density functional theory calculations of hydrogen adsorption on Ti-, Zn-, Zr-, Al-, and N-doped and intrinsic graphene sheets. International Journal of Hydrogen Energy, 2013, 38, 14269-14275.	3.8	92
14	Molecular dynamics simulations on the interaction between polymers and hydroxyapatite with and without coupling agents. Acta Biomaterialia, 2009, 5, 1169-1181.	4.1	89
15	Bioadhesive Microporous Architectures by Self-Assembling Polydopamine Microcapsules for Biomedical Applications. Chemistry of Materials, 2015, 27, 848-856.	3.2	81
16	Metal-doped graphitic carbon nitride (g-C <sub>3</sub> N <sub>4</sub> ) as selective NO <sub>2</sub> sensors: A first-principles study. Applied Surface Science, 2018, 455, 1116-1122.	3.1	71
17	Atomic-Level Insights into the Edge Active ReS <sub>2</sub> Ultrathin Nanosheets for High-Efficiency Light-to-Hydrogen Conversion. , 2020, 2, 1484-1494.		65
18	Biodegradable carboxymethyl inulin as a scale inhibitor for calcite crystal growth: Molecular level understanding. Desalination, 2016, 381, 1-7.	4.0	59

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19	Protein-Affinitive Polydopamine Nanoparticles as an Efficient Surface Modification Strategy for Versatile Porous Scaffolds Enhancing Tissue Regeneration. <i>Particle and Particle Systems Characterization</i> , 2016, 33, 89-100.	1.2	56
20	DFT Study of the Adsorption of Aspartic Acid on Pure, N-Doped, and Ca-Doped Rutile (110) Surfaces. <i>Journal of Physical Chemistry C</i> , 2011, 115, 18572-18581.	1.5	53
21	Doped phosphorene for hydrogen capture: A DFT study. <i>Applied Surface Science</i> , 2018, 433, 249-255.	3.1	48
22	Carboxymethyl konjac glucomannan conjugated polydopamine composites for Pb(II) removal. <i>Carbohydrate Polymers</i> , 2017, 162, 62-70.	5.1	47
23	Identification and visualisation of microplastics via PCA to decode Raman spectrum matrix towards imaging. <i>Chemosphere</i> , 2022, 286, 131736.	4.2	46
24	Understanding interfacial interactions of polydopamine and glass fiber and their enhancement mechanisms in epoxy-based laminates. <i>Composites Part A: Applied Science and Manufacturing</i> , 2019, 116, 62-71.	3.8	45
25	Branched sulfonated polyimide/functionalized silicon carbide composite membranes with improved chemical stabilities and proton selectivities for vanadium redox flow battery application. <i>Journal of Materials Science</i> , 2018, 53, 14506-14524.	1.7	41
26	Computer simulation of biomolecule-biomaterial interactions at surfaces and interfaces. <i>Biomedical Materials (Bristol)</i> , 2015, 10, 032001.	1.7	40
27	Laser-Ignited Relay-Domino-Like Reactions in Graphene Oxide/CL <sub>20</sub> Films for High-Temperature Pulse Preparation of Bi-Layered Photothermal Membranes. <i>Small</i> , 2019, 15, e1900338.	5.2	40
28	Adsorption behavior of CO <sub>2</sub> on pristine and doped phosphorenes: A dispersion corrected DFT study. <i>Journal of CO<sub>2</sub> Utilization</i> , 2018, 24, 463-470.	3.3	39
29	Significantly Raised Visible-Light Photocatalytic H <sub>2</sub> Evolution on a 2D/2D ReS <sub>2</sub> /In <sub>2</sub> ZnS <sub>4</sub> van der Waals Heterostructure. <i>Small</i> , 2021, 17, e2100296.	5.2	38
30	Effects of aqueous environment and surface defects on Arg-Gly-Asp peptide adsorption on titanium oxide surfaces investigated by molecular dynamics simulation. <i>Journal of Biomedical Materials Research - Part A</i> , 2011, 96A, 466-476.	2.1	37
31	An electrochemical sensor based on iron(II,III)-graphene oxide@molecularly imprinted polymer nanoparticles for interleukin-8 detection in saliva. <i>Analytical Methods</i> , 2015, 7, 7784-7791.	1.3	34
32	Hexagonal hydroxyapatite formation on TiO <sub>2</sub> nanotubes under urea modulation. <i>CrystEngComm</i> , 2011, 13, 3741.	1.3	29
33	Branched Sulfonated Polyimide/Sulfonated Methylcellulose Composite Membranes with Remarkable Proton Conductivity and Selectivity for Vanadium Redox Flow Batteries. <i>ChemElectroChem</i> , 2020, 7, 937-945.	1.7	28
34	Strain engineering of selective chemical adsorption on monolayer black phosphorous. <i>Applied Surface Science</i> , 2020, 503, 144033.	3.1	25
35	Band structure of graphene modulated by Ti or N dopants and applications in gas sensing. <i>Journal of Molecular Graphics and Modelling</i> , 2015, 61, 224-230.	1.3	24
36	Bio-derived three-dimensional hierarchical carbon-graphene-TiO <sub>2</sub> as electrode for supercapacitors. <i>Scientific Reports</i> , 2018, 8, 4412.	1.6	24

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37	Efficient extraction of U(VI) from uranium enrichment process wastewater by amine-aminophosphonate-modified polyacrylonitrile fibers. <i>Science of the Total Environment</i> , 2022, 831, 154743.	3.9	24
38	Density functional theory study of interactions between glycine and TiO <sub>2</sub> /graphene nanocomposites. <i>Chemical Physics Letters</i> , 2014, 599, 86-91.	1.2	23
39	The molecular understanding of interfacial interactions of functionalized graphene and chitosan. <i>Applied Surface Science</i> , 2016, 360, 715-721.	3.1	23
40	Polycaprolactone/chitosan blends: Simulation and experimental design. <i>Materials and Design</i> , 2016, 90, 396-402.	3.3	23
41	Screw dislocation induced phonon transport suppression in SiGe superlattices. <i>Physical Review B</i> , 2019, 100, .	1.1	23
42	Porous graphene oxide/chitosan nanocomposites based on interfacial chemical interactions. <i>European Polymer Journal</i> , 2019, 119, 114-119.	2.6	22
43	Adsorption and dissociation behavior of water on pristine and defected calcite {1 0 4} surfaces: A DFT study. <i>Applied Surface Science</i> , 2021, 556, 149777.	3.1	22
44	Adsorption behavior of 2, 3, 7, 8-tetrachlorodibenzo-p-dioxin on pristine and doped black phosphorene: A DFT study. <i>Chemosphere</i> , 2017, 185, 509-517.	4.2	21
45	Crosslinked carbon nanofiber films with hierarchical pores as flexible electrodes for high performance supercapacitors. <i>Materials and Design</i> , 2018, 141, 17-25.	3.3	21
46	Fluorine-Containing Branched Sulfonated Polyimide Membrane for Vanadium Redox Flow Battery Applications. <i>ChemElectroChem</i> , 2018, 5, 3695-3707.	1.7	21
47	Sulfonated polyimide/chitosan composite membranes for a vanadium redox flow battery: influence of the sulfonation degree of the sulfonated polyimide. <i>Polymer Journal</i> , 2016, 48, 905-918.	1.3	19
48	Understanding the interfacial interactions between dopamine and different graphenes for biomedical materials. <i>Materials Chemistry Frontiers</i> , 2017, 1, 1156-1164.	3.2	18
49	Konjac glucomannan/polyvinyl alcohol nanofibers with enhanced skin healing properties by improving fibrinogen adsorption. <i>Materials Science and Engineering C</i> , 2020, 110, 110718.	3.8	18
50	Molecular dynamics simulation of RGD peptide adsorption on titanium oxide surfaces. <i>Journal of Materials Science: Materials in Medicine</i> , 2008, 19, 3437-3441.	1.7	17
51	Adsorption of 2,3,7,8-tetrachlorodibenzo-p-dioxins on intrinsic, defected, and Ti (N, Ag) doped graphene: a DFT study. <i>Journal of Molecular Modeling</i> , 2014, 20, 2238.	0.8	15
52	Regulating the effect of element doping on the CO <sub>2</sub> capture performance of kaolinite: A density functional theory study. <i>Applied Surface Science</i> , 2020, 512, 145642.	3.1	15
53	Chitosan/graphene complex membrane for polymer electrolyte membrane fuel cell: A molecular dynamics simulation study. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 25960-25969.	3.8	15
54	Molybdenum Oxide Nanosheet-Supported Ferrous Ion Artificial Peroxidase for Visual Colorimetric Detection of Triacetone Triperoxide. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 18985-18991.	3.2	13

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55	SO <sub>2</sub> adsorption and conversion on pristine and defected calcite {1 0 4} surface: A density functional theory study. <i>Applied Surface Science</i> , 2022, 596, 153575.	3.1	11
56	Interaction Behaviors of Fibrinopeptide-A and Graphene with Different Functional Groups: A Molecular Dynamics Simulation Approach. <i>Journal of Physical Chemistry B</i> , 2017, 121, 7907-7915.	1.2	10
57	Atomically Dispersed Single Co Sites in Zeolitic Imidazole Frameworks Promoting High-Efficiency Visible-Light-Driven Hydrogen Production. <i>Chemistry - A European Journal</i> , 2019, 25, 9670-9677.	1.7	10
58	Polydopamine/silver hybrid coatings on soda-lime glass spheres with controllable release ability for inhibiting biofilm formation. <i>Science China Materials</i> , 2020, 63, 842-850.	3.5	10
59	Electrospun Cu <sub>2</sub> ZnSnS <sub>4</sub> microfibers with strong (112) preferred orientation: fabrication and characterization. <i>RSC Advances</i> , 2015, 5, 15749-15755.	1.7	9
60	CO <sub>2</sub> reduction to CH <sub>4</sub> on Cu-doped phosphorene: a first-principles study. <i>Nanoscale</i> , 2021, 13, 20541-20549.	2.8	9
61	Effects of O-deficiency on the interaction between rutile and Arg: A density functional theory study. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2014, 61, 83-89.	1.3	7
62	Photocatalytic and antibacterial properties of copper hydroxyphosphate with hierarchical superstructures synthesized by a hydrothermal method. <i>Materials Chemistry and Physics</i> , 2018, 206, 130-135.	2.0	7
63	Breathable, Moisturizing, Anti-Oxidation SSD-PG-PVA/KGM Fibrous Membranes for Accelerating Diabetic Wound Tissue Regeneration. <i>ACS Applied Bio Materials</i> , 2022, 5, 2894-2901.	2.3	7
64	Out-of-Cell Oxygen Diffusivity Evaluation in Lithium-Air Batteries. <i>ChemElectroChem</i> , 2014, 1, 2052-2057.	1.7	6
65	Super-Paramagnetic Nanoparticles by Surface Imprinting on Graphene Oxide Modified Iron (II, III) with Application for the Determination of Ovalbumin by Absorption Spectroscopy. <i>Analytical Letters</i> , 2015, 48, 2463-2481.	1.0	6
66	Cost effective biochar gels with super capabilities for heavy metal removal. <i>RSC Advances</i> , 2016, 6, 75430-75439.	1.7	6
67	Exploring adsorption mechanism of glyphosate on pristine and elemental doped graphene. <i>Chemical Physics Letters</i> , 2021, 779, 138849.	1.2	6
68	Facile preparation of high-strength $\beta$ -CaSO <sub>4</sub> ·0.5H <sub>2</sub> O regulated by maleic acid from phosphogypsum: experimental and molecular dynamics simulation studies. <i>SN Applied Sciences</i> , 2020, 2, 1.	1.5	5
69	Atomistic understanding of interfacial interactions between bone morphogenetic protein-7 and graphene with different oxidation degrees. <i>Materials Chemistry Frontiers</i> , 2019, 3, 1900-1908.	3.2	4
70	Modulating the interactions between MgH <sub>2</sub> and graphene using different dopants. <i>Chemical Physics Letters</i> , 2015, 623, 82-88.	1.2	3
71	Study on early hydration of gypsum-based materials containing different chemical admixtures by isothermal calorimetry and oscillation rheology. <i>Journal of Thermal Analysis and Calorimetry</i> , 0, 1.	2.0	3
72	Mussel Inspired Modification of Rubber Crumbs for Improved Interfacial Adhesion in Rubber Cement Mortar. <i>Applied Composite Materials</i> , 2021, 28, 1767-1780.	1.3	3

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73	Konjac Glucomannan Induced Retarding Effects on the Early Hydration of Cement. <i>Polymers</i> , 2022, 14, 1064.	2.0	3
74	Surface Plasmon Resonance-based Inhibitive Immunoassay Coupled with Dummy Template Molecularly Imprinted Polymer Solid Phase Extraction for On-line Analysis of Trace Clenbuterol. <i>Journal of the Chinese Chemical Society</i> , 2014, 61, 1357-1364.	0.8	2
75	Graphene-based materials and their potential applications. , 2017, , 267-287.		2
76	Interactions between typical functional groups of soil organic matter and mica (001) surface: A DFT study. <i>Applied Clay Science</i> , 2022, 216, 106374.	2.6	2
77	A hybrid 3D spatial data structure for the integration of aboveground, ground and underground objects. , 2010, ,		1
78	Significantly Raised Visible-Light Photocatalytic H <sub>2</sub> Evolution on a 2D/2D ReS <sub>2</sub> /In <sub>2</sub> ZnS <sub>4</sub> van der Waals Heterostructure ( <i>Small</i> 32/2021). <i>Small</i> , 2021, 17, 2170168.	5.2	1
79	Stress Distribution in Microregion of Core-Shell Structure Lightweight Aggregate Concrete. <i>Buildings</i> , 2021, 11, 540.	1.4	1
80	On the Grid-Enabled Geospatial Information Workflow. , 2009, ,		0
81	Light-Ignited Combustion: Laser-Ignited Relay-Domino-Like Reactions in Graphene Oxide/CL <sub>20</sub> Films for High-Temperature Pulse Preparation of Bi-Layered Photothermal Membranes ( <i>Small</i> 20/2019). <i>Small</i> , 2019, 15, 1970107.	5.2	0
82	Interactions between stearic acid and calcite surfaces: Experimental and computer simulation studies. <i>Biosurface and Biotribology</i> , 2021, 7, 126-132.	0.6	0