

# Zhonglu Guo

## List of Publications by Year in descending order

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55  
papers

2,935  
citations

218677

26  
h-index

168389

53  
g-index

55  
all docs

55  
docs citations

55  
times ranked

3411  
citing authors

#	ARTICLE	IF	CITATIONS
1	MXene: a promising photocatalyst for water splitting. <i>Journal of Materials Chemistry A</i> , 2016, 4, 11446-11452.	10.3	569
2	New two-dimensional transition metal borides for Li ion batteries and electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2017, 5, 23530-23535.	10.3	253
3	Flexible two-dimensional $Ti_{n+1}C_n$ ( $n = 1, 2$ and $3$ ) and their functionalized MXenes predicted by density functional theories. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 15348-15354.	2.8	247
4	Strain-mediated type-I/type-II transition in MXene/Blue phosphorene van der Waals heterostructures for flexible optical/electronic devices. <i>Journal of Materials Chemistry C</i> , 2017, 5, 978-984.	5.5	155
5	Ultrathin h-BN/Bi <sub>2</sub> MoO <sub>6</sub> heterojunction with synergetic effect for visible-light photocatalytic tetracycline degradation. <i>Journal of Colloid and Interface Science</i> , 2021, 589, 545-555.	9.4	115
6	An overview of materials issues in resistive random access memory. <i>Journal of Materiomics</i> , 2015, 1, 285-295.	5.7	106
7	Novel two-dimensional molybdenum carbides as high capacity anodes for lithium/sodium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2019, 7, 12145-12153.	10.3	106
8	Novel Two-Dimensional Janus MoSiGeN <sub>4</sub> and WSiGeN <sub>4</sub> as Highly Efficient Photocatalysts for Spontaneous Overall Water Splitting. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 28090-28097.	8.0	89
9	Ti-enhanced exfoliation of V <sub>2</sub> AlC into V <sub>2</sub> C MXene for lithium-ion battery anodes. <i>Ceramics International</i> , 2017, 43, 11450-11454.	4.8	85
10	M <sub>2</sub> C-type MXenes: Promising catalysts for CO <sub>2</sub> capture and reduction. <i>Applied Surface Science</i> , 2020, 521, 146436.	6.1	77
11	Band gap engineering in huge-gap semiconductor SrZrO <sub>3</sub> for visible-light photocatalysis. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 2042-2048.	7.1	72
12	Nickel (II) modified porous boron nitride: An effective adsorbent for tetracycline removal from aqueous solution. <i>Chemical Engineering Journal</i> , 2020, 394, 124985.	12.7	66
13	Microscopic origin of MXenes derived from layered MAX phases. <i>RSC Advances</i> , 2015, 5, 25403-25408.	3.6	61
14	Carbon doped hexagonal boron nitride nanoribbon as efficient metal-free electrochemical nitrogen reduction catalyst. <i>Chemical Engineering Journal</i> , 2021, 410, 128419.	12.7	59
15	Combined effects of simulated rainfall and overland flow on sediment and solute transport in hillslope erosion. <i>Journal of Soils and Sediments</i> , 2018, 18, 1120-1132.	3.0	55
16	Two-dimensional chromium boride MBenes with high HER catalytic activity. <i>Applied Surface Science</i> , 2020, 500, 144248.	6.1	50
17	New gallium chalcogenides/arsenene van der Waals heterostructures promising for photocatalytic water splitting. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 15995-16004.	7.1	49
18	Vacancy-mediated lithium adsorption and diffusion on MXene. <i>Applied Surface Science</i> , 2019, 488, 578-585.	6.1	46

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19	Role of oxygen vacancies in the resistive switching of SrZrO <sub>3</sub> for resistance random access memory. <i>Journal of Alloys and Compounds</i> , 2013, 580, 148-151.	5.5	44
20	Strengthening mechanism of aluminum on elastic properties of NbVTiZr high-entropy alloys. <i>Intermetallics</i> , 2018, 92, 7-14.	3.9	44
21	Controllable synthesis and enhanced microwave absorption properties of novel lightweight graphene quantum dots/hexagonal boron nitride composites. <i>Carbon</i> , 2021, 182, 134-143.	10.3	41
22	Aggregate Stability under Long-Term Fertilization Practices: The Case of Eroded Ultisols of South-Central China. <i>Sustainability</i> , 2019, 11, 1169.	3.2	37
23	Synergistic Resistive Switching Mechanism of Oxygen Vacancies and Metal Interstitials in Ta <sub>2</sub> O <sub>5</sub> . <i>Journal of Physical Chemistry C</i> , 2016, 120, 2456-2463.	3.1	34
24	Breaking the linear scaling relations in MXene catalysts for efficient CO <sub>2</sub> reduction. <i>Chemical Engineering Journal</i> , 2022, 429, 132171.	12.7	32
25	Mechanical properties and soil stability affected by fertilizer treatments for an Ultisol in subtropical China. <i>Plant and Soil</i> , 2013, 363, 157-174.	3.7	31
26	In Situ Cu-Loaded Porous Boron Nitride Nanofiber as an Efficient Adsorbent for CO <sub>2</sub> Capture. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 7454-7462.	6.7	30
27	Functionalized Mo <sub>2</sub> B <sub>2</sub> MBenes: Promising anchoring and electrocatalysis materials for Lithium-Sulfur battery. <i>Applied Surface Science</i> , 2021, 566, 150634.	6.1	29
28	Bimetallic AuPd Nanoparticles Loaded on Amine-Functionalized Porous Boron Nitride Nanofibers for Catalytic Dehydrogenation of Formic Acid. <i>ACS Applied Nano Materials</i> , 2021, 4, 1849-1857.	5.0	27
29	Construction of 2D/2D Bi <sub>2</sub> WO <sub>6</sub> /BN heterojunction for effective improvement on photocatalytic degradation of tetracycline. <i>Journal of Alloys and Compounds</i> , 2022, 894, 162487.	5.5	26
30	Synergistic effect of Ni and Fe in Fe-doped NiS <sub>2</sub> counter electrode for dye-sensitized solar cells: Experimental and DFT studies. <i>Electrochimica Acta</i> , 2018, 284, 24-29.	5.2	23
31	Effect of water content, bulk density, and aggregate size on mechanical characteristics of Aquults soil blocks and aggregates from subtropical China. <i>Journal of Soils and Sediments</i> , 2017, 17, 210-219.	3.0	22
32	Design principles of tuning oxygen vacancy diffusion in SrZrO <sub>3</sub> for resistance random access memory. <i>Journal of Materials Chemistry C</i> , 2015, 3, 4081-4085.	5.5	20
33	Realization of a reversible switching in TaO <sub>2</sub> polymorphs via Peierls distortion for resistance random access memory. <i>Applied Physics Letters</i> , 2015, 106, 091903.	3.3	19
34	Surface ligand engineering of CsPbBr <sub>3</sub> perovskite nanowires for high-performance photodetectors. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 2367-2376.	9.4	19
35	Coincident modulation of lattice and electron thermal transport performance in MXenes via surface functionalization. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 19689-19697.	2.8	18
36	Solvothermal synthesis of Mn-doped CsPbCl <sub>3</sub> perovskite nanocrystals with tunable morphology and their size-dependent optical properties. <i>RSC Advances</i> , 2019, 9, 39315-39322.	3.6	16

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37	Fluorine doped porous boron nitride for efficient CO <sub>2</sub> capture and separation: A DFT study. Applied Surface Science, 2021, 556, 149775.	6.1	16
38	Novel hierarchical RGO/MoS <sub>2</sub> /K <sub>1-x</sub> MnO <sub>2</sub> composite architectures with enhanced broadband microwave absorption performance. Journal of Materials Chemistry C, 2019, 7, 13878-13886.	5.5	15
39	Sc <sub>2</sub> CO-MXene/h-BN heterostructure with synergetic effect as an anchoring and catalytic material for lithium-sulfur battery. Journal of Alloys and Compounds, 2021, 887, 161273.	5.5	15
40	Synergistic photocatalytic of CO <sub>2</sub> -to-CO conversion by 2D/1D Ti <sub>3</sub> C <sub>2</sub> Tx/p-BN heterojunction with interfacial chemical bonding. Journal of Alloys and Compounds, 2022, 920, 165933.	5.5	15
41	Anchoring of CsPbBr <sub>3</sub> perovskite quantum dots on BN nanostructures for enhanced efficiency and stability: a comparative study. Journal of Materials Chemistry C, 2021, 9, 842-850.	5.5	14
42	Metal-Metal Bonding Stabilized Ground State Structure of Early Transition Metal Monoxide TM-MO (TM = Ti, Hf, V, Ta). Journal of Physical Chemistry C, 2016, 120, 10009-10014.	3.1	10
43	Mercury Adsorption on Thiol-Modified Porous Boron Nitride: A Combined Experimental and Theoretical Investigation. Industrial & Engineering Chemistry Research, 2021, 60, 12984-12998.	3.7	9
44	Enhanced Li <sup>+</sup> storage through highly hybridized networks of self-assembled SnS <sub>2</sub> /rGO aerogels. Journal of Alloys and Compounds, 2020, 828, 154192.	5.5	8
45	Eco-green C, O co-doped porous BN adsorbent for aqueous solution with superior adsorption efficiency and selectivity. Chemosphere, 2022, 288, 132520.	8.2	8
46	Densification and pelletization of porous boron nitride fibers for effective CO <sub>2</sub> adsorption. Ceramics International, 2022, , .	4.8	8
47	Synthesis of Nanostructured Boron Nitride Aerogels by Rapid Pyrolysis of Melamine Diborate Aerogels via Induction Heating: From Composition Adjustment to Property Studies. ACS Applied Nano Materials, 2021, 4, 13788-13797.	5.0	8
48	Cobalt Supported on BN Catalyst with High $\delta$ Defects and Its Efficient Hydrodeoxygenation Performance of HMF to DMF**. ChemistrySelect, 2022, 7, .	1.5	7
49	Local-ordering mediated configuration stability and elastic properties of aluminum-containing high entropy alloys. Intermetallics, 2019, 110, 106474.	3.9	6
50	Two-dimensional O-phase group III monochalcogenides for photocatalytic water splitting. Journal of Physics Condensed Matter, 2020, 32, 065501.	1.8	6
51	Lattice Thermal Conductivity of mGeTe <sub>n</sub> Sb <sub>2</sub> Te <sub>3</sub> Phase-Change Materials: A First-Principles Study. Crystals, 2019, 9, 136.	2.2	5
52	Highly Selective Hydrogenation of Phenol Catalyzed by Porous BN Supported Ni <sup>0</sup> /Pd Catalysts. ChemistrySelect, 2021, 6, 5975-5982.	1.5	5
53	First-principles investigation of the stability and stabilization mechanism of Ni <sub>2</sub> Zn <sub>11</sub> $\bar{1}$ <sup>3</sup> brasses under high pressure. Computational Materials Science, 2015, 98, 430-434.	3.0	4
54	Enhanced adsorption of fluoroquinolone antibiotics on Cu-modified porous boron nitride nanofibers in aqueous solution. Journal of Molecular Structure, 2022, 1255, 132475.	3.6	3

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55	Electronic properties and surface reactive sites of carbon and oxygen doped porous boron nitride: A DFT study. <i>Diamond and Related Materials</i> , 2022, 121, 108802.	3.9	1