

# Qionghua Zhou

## List of Publications by Year in descending order

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Version: 2024-02-01

42  
papers

3,964  
citations

293460

24  
h-index

312153

41  
g-index

42  
all docs

42  
docs citations

42  
times ranked

6736  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Accelerated Discovery of Single-Atom Catalysts for Nitrogen Fixation via Machine Learning. <i>Energy and Environmental Materials</i> , 2023, 6, .  | 7.3  | 26        |
| 2  | On-the-fly interpretable machine learning for rapid discovery of two-dimensional ferromagnets with high Curie temperature. <i>CheM</i> , 2022, 8, 769-783.   | 5.8  | 38        |
| 3  | Coexistence of Semiconducting Ferromagnetics and Piezoelectrics down 2D Limit from Non van der Waals Antiferromagnetic $\text{LiNbO}_3$ -Type $\text{FeTiO}_3$ . <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 1991-1999. | 2.1  | 4         |
| 4  | Formation of Graphene Nanoscrolls and Their Electronic Structures Based on <i>Ab Initio</i> Calculations. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 2500-2506.  | 2.1  | 3         |
| 5  | Inverse design with deep generative models: next step in materials discovery. <i>National Science Review</i> , 2022, 9, .  | 4.6  | 5         |
| 6  | Accelerated design of promising mixed lead-free double halide organic-inorganic perovskites for photovoltaics using machine learning. <i>Nanoscale</i> , 2021, 13, 12250-12259.  | 2.8  | 21        |
| 7  | Blue phosphorus nanoscrolls. <i>Physical Review B</i> , 2020, 102, .   | 1.1  | 5         |
| 8  | Coupling a Crystal Graph Multilayer Descriptor to Active Learning for Rapid Discovery of 2D Ferromagnetic Semiconductors/Half-Metals/Metals. <i>Advanced Materials</i> , 2020, 32, e2002658.   | 11.1 | 86        |
| 9  | Property-Oriented Material Design Based on a Data-Driven Machine Learning Technique. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 3920-3927.   | 2.1  | 54        |
| 10 | Ambient Degradation-Induced Spin Paramagnetism in Phosphorene. <i>Small</i> , 2019, 15, e1804386.  | 5.2  | 14        |
| 11 | Photo-oxidative degradation of methylammonium lead iodide perovskite: mechanism and protection. <i>Journal of Materials Chemistry A</i> , 2019, 7, 2275-2282.  | 5.2  | 105       |
| 12 | Recent advances in oxidation and degradation mechanisms of ultrathin 2D materials under ambient conditions and their passivation strategies. <i>Journal of Materials Chemistry A</i> , 2019, 7, 4291-4312.                           | 5.2  | 158       |
| 13 | Rapid Discovery of Ferroelectric Photovoltaic Perovskites and Material Descriptors via Machine Learning. <i>Small Methods</i> , 2019, 3, 1900360.  | 4.6  | 76        |
| 14 | Forming Atom-Vacancy Interface on the $\text{MoS}_2$ Catalyst for Efficient Hydrodeoxygenation Reactions. <i>Small Methods</i> , 2019, 3, 1800315.   | 4.6  | 23        |
| 15 | A New Effective Approach to Prevent the Degradation of Black Phosphorus: The Scandium Transition Metal Doping. <i>Journal of Physical Chemistry C</i> , 2018, 122, 9654-9662.  | 1.5  | 20        |
| 16 | Surface Vacancy-Induced Switchable Electric Polarization and Enhanced Ferromagnetism in Monolayer Metal Trihalides. <i>Nano Letters</i> , 2018, 18, 2943-2949.   | 4.5  | 157       |
| 17 | On-surface synthesis: a promising strategy toward the encapsulation of air unstable ultra-thin 2D materials. <i>Nanoscale</i> , 2018, 10, 3799-3804.   | 2.8  | 18        |
| 18 | Ultrathin Semiconducting $\text{Bi}_2\text{Te}_2\text{S}$ and $\text{Bi}_2\text{Te}_2\text{Se}$ with High Electron Mobilities. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 487-490.                                      | 2.1  | 56        |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 19 | Enhanced Stability of Black Phosphorus Field-Effect Transistors via Hydrogen Treatment. <i>Advanced Electronic Materials</i> , 2018, 4, 1700455.  | 2.6  | 19        |
| 20 | Highly Promoted Carrier Mobility and Intrinsic Stability by Rolling Up Monolayer Black Phosphorus into Nanoscrolls. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 6847-6852.                              | 2.1  | 20        |
| 21 | Black Phosphorus: Abnormal Near-Infrared Absorption in 2D Black Phosphorus Induced by Ag Nanoclusters Surface Functionalization ( <i>Adv. Mater.</i> 43/2018). <i>Advanced Materials</i> , 2018, 30, 1870325.       | 11.1 | 0         |
| 22 | Transition-Metal Dihydride Monolayers: A New Family of Two-Dimensional Ferromagnetic Materials with Intrinsic Room-Temperature Half-Metallicity. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 4260-4266. | 2.1  | 118       |
| 23 | Abnormal Near-Infrared Absorption in 2D Black Phosphorus Induced by Ag Nanoclusters Surface Functionalization. <i>Advanced Materials</i> , 2018, 30, e1801931.  | 11.1 | 43        |
| 24 | Accelerated discovery of stable lead-free hybrid organic-inorganic perovskites via machine learning. <i>Nature Communications</i> , 2018, 9, 3405.  | 5.8  | 442       |
| 25 | Photo-oxidative Degradation and Protection Mechanism of Black Phosphorus: Insights from Ultrafast Dynamics. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 5034-5039.                                      | 2.1  | 45        |
| 26 | Dielectric and ferroelectric sensing based on molecular recognition in Cu(1,10-phenothroline) <sub>2</sub> SeO <sub>4</sub> ·(diol) systems. <i>Nature Communications</i> , 2017, 8, 14551.                         | 5.8  | 36        |
| 27 | Water-Catalyzed Oxidation of Few-Layer Black Phosphorous in a Dark Environment. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 9131-9135.   | 7.2  | 141       |
| 28 | Passivation of Black Phosphorus via Self-Assembled Organic Monolayers by van der Waals Epitaxy. <i>Advanced Materials</i> , 2017, 29, 1603990.  | 11.1 | 113       |
| 29 | Band-edge engineering via molecule intercalation: a new strategy to improve stability of few-layer black phosphorus. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 29232-29236.                            | 1.3  | 10        |
| 30 | Prediction of a room-temperature eight-coordinate two-dimensional topological insulator: penta-RuS <sub>4</sub> monolayer. <i>Npj 2D Materials and Applications</i> , 2017, 1, .                                    | 3.9  | 18        |
| 31 | Water-Catalyzed Oxidation of Few-Layer Black Phosphorous in a Dark Environment. <i>Angewandte Chemie</i> , 2017, 129, 9259-9263.  | 1.6  | 16        |
| 32 | An organic-inorganic perovskite ferroelectric with large piezoelectric response. <i>Science</i> , 2017, 357, 306-309.   | 6.0  | 744       |
| 33 | Arsenene-Based Heterostructures: Highly Efficient Bifunctional Materials for Photovoltaics and Photocatalytics. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 42856-42861.                               | 4.0  | 44        |
| 34 | Oxidation Mechanism and Protection Strategy of Ultrathin Indium Selenide: Insight from Theory. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 4368-4373.   | 2.1  | 62        |
| 35 | Te-Doped Black Phosphorus Field-Effect Transistors. <i>Advanced Materials</i> , 2016, 28, 9408-9415.  | 11.1 | 241       |
| 36 | Enhancing the Spin-Orbit Coupling in Fe <sub>3</sub> O <sub>4</sub> Epitaxial Thin Films by Interface Engineering. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 27353-27359.                            | 4.0  | 20        |

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|----|--|-----|-----------|
| 37 | Light-Induced Ambient Degradation of Few-Layer Black Phosphorus: Mechanism and Protection. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 11437-11441.   | 7.2 | 514       |
| 38 | Light-Induced Ambient Degradation of Few-Layer Black Phosphorus: Mechanism and Protection. <i>Angewandte Chemie</i> , 2016, 128, 11609-11613.  | 1.6 | 78        |
| 39 | Covalent Functionalization of Black Phosphorus from First-Principles. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 4540-4546.   | 2.1 | 71        |
| 40 | Probing the Buried Magnetic Interfaces. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 5752-5757.  | 4.0 | 8         |
| 41 | High-Temperature Ferroelectricity and Photoluminescence in a Hybrid Organic-Inorganic Compound: (3-Pyrrolinium)MnCl <sub>3</sub> . <i>Journal of the American Chemical Society</i> , 2015, 137, 13148-13154. | 6.6 | 246       |
| 42 | Topological insulators based on 2D shape-persistent organic ligand complexes. <i>Nanoscale</i> , 2015, 7, 727-735.   | 2.8 | 46        |