# Pinwen Zhu

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3788976/publications.pdf

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|---|---|---|---|
| 57 papers | 1,240 citations | 394286 19 h-index | 377752 34 g-index |
| 58 all docs | 58 docs citations | 58 times ranked | 1940 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Highly Active, Nonprecious Electrocatalyst Comprising Borophene Subunits for the Hydrogen Evolution Reaction. Journal of the American Chemical Society, 2017, 139, 12370-12373. | 6.6 | 335 |
| 2 | Exploring Hardness and the Distorted sp<sup>2</sup> Hybridization of Bâ€“B Bonds in WB<sub>3</sub>. Chemistry of Materials, 2014, 26, 5297-5302. | 3.2 | 80 |
| 3 | Ultrastrong Boron Frameworks in ZrB<sub>12</sub>: A Highway for Electron Conducting. Advanced Materials, 2017, 29, 1604003. | 11.1 | 71 |
| 4 | Enhanced Vickers hardness by quasi-3D boron network in MoB2. RSC Advances, 2013, 3, 18317. | 1.7 | 53 |
| 5 | Manganese mono-boride, an inexpensive room temperature ferromagnetic hard material. Scientific Reports, 2017, 7, 43759. | 1.6 | 47 |
| 6 | Hexagonal-structured Îµ-NbN: ultra-incompressibility, high shear rigidity and a possible hard superconducting material. Scientific Reports, 2015, 5, 10811. | 1.6 | 46 |
| 7 | Ferromagnetic Properties of Y-Doped AlN Nanorods. Journal of Physical Chemistry C, 2010, 114, 15574-15577. | 1.5 | 38 |
| 8 | Discovery of Superconductivity in Hard Hexagonal Îµ-NbN. Scientific Reports, 2016, 6, 22330. | 1.6 | 36 |
| 9 | Investigating Robust Honeycomb Borophenes Sandwiching Manganese Layers in Manganese Diboride. Inorganic Chemistry, 2016, 55, 11140-11146. | 1.9 | 31 |
| 10 | Abnormal Pressureâ€Induced Photoluminescence Enhancement and Phase Decomposition in Pyrochlore La<sub>2</sub>Sn<sub>2</sub>O<sub>7</sub>. Advanced Materials, 2017, 29, 1701513. | 11.1 | 31 |
| 11 | Carbon nano-onions: large-scale preparation, functionalization and their application as anode material for rechargeable lithium ion batteries. RSC Advances, 2016, 6, 92285-92298. | 1.7 | 28 |
| 12 | Nanotwinned diamond synthesized from multicore carbon onion. Carbon, 2017, 120, 405-410. | 5.4 | 28 |
| 13 | WB2: not a superhard material for strong polarization character of interlayer Wâ€“B bonding. Physical Chemistry Chemical Physics, 2017, 19, 8919-8924. | 1.3 | 28 |
| 14 | Exploring the coordination change of vanadium and structure transformation of metavanadate MgV2O6 under high pressure. Scientific Reports, 2016, 6, 38566. | 1.6 | 25 |
| 15 | Synthesis and Mechanical Character of Hexagonal Phase Î´â€²WN. Inorganic Chemistry, 2017, 56, 3970-3975. | 1.9 | 25 |
| 16 | Structural Phase Transition and Electrical Transport Properties of CuInS<sub>2</sub> Nanocrystals under High Pressure. Journal of Physical Chemistry C, 2015, 119, 2963-2968. | 1.5 | 22 |
| 17 | Unprecedented strength in pure iron via high-pressure induced nanotwinned martensite. Materials Research Letters, 2019, 7, 354-360. | 4.1 | 22 |
| 18 | Modulating Hardness in Molybdenum Monoborides by Adjusting an Array of Boron Zigzag Chains. Chemistry of Materials, 2019, 31, 200-206. | 3.2 | 22 |

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|---|---|---|---|
| 19 | Electronic Topological Transition in Ag2Te at High-pressure. Scientific Reports, 2015, 5, 14681. | 1.6 | 20 |
| 20 | Excellent mechanical properties of metastable c-WN fabricated at high pressure and high temperature. International Journal of Refractory Metals and Hard Materials, 2017, 66, 63-67. | 1.7 | 18 |
| 21 | Superconductivity with high hardness in Mo<sub>3</sub>C<sub>2</sub>. Inorganic Chemistry Frontiers, 2019, 6, 1282-1288. | 3.0 | 16 |
| 22 | Synthesis and characterization of a strong ferromagnetic and high hardness intermetallic compound Fe<sub>2</sub>B. Physical Chemistry Chemical Physics, 2020, 22, 27425-27432. | 1.3 | 15 |
| 23 | Manganese borides synthesized at high pressure and high temperature. Journal of Applied Physics, 2012, 111, 112616. | 1.1 | 13 |
| 24 | Modifying microscopic structures of MoS2 by high pressure and high temperature used in hydrogen evolution reaction. Electrochimica Acta, 2020, 357, 136868. | 2.6 | 11 |
| 25 | Pressure induced structural transition of small carbon nano-onions. RSC Advances, 2016, 6, 2914-2919. | 1.7 | 10 |
| 26 | Role of TMâ€“TM Connection Induced by Opposite d-Electron States on the Hardness of Transition-Metal (TM = Cr, W) Mononitrides. Inorganic Chemistry, 2019, 58, 15573-15579. | 1.9 | 10 |
| 27 | Lasing-Mode Switch of a Hexagonal ZnO Pyramid Driven by Pressure within a Diamond Anvil Cell. Journal of Physical Chemistry Letters, 2019, 10, 610-616. | 2.1 | 10 |
| 28 | Optical Behaviors of a Microsized Single-Crystal MAPbI3 Plate under High Pressure. Journal of Physical Chemistry C, 2019, 123, 30221-30227. | 1.5 | 10 |
| 29 | Temperature-Dependent Lasing of CsPbI<sub>3</sub> Triangular Pyramid. Journal of Physical Chemistry Letters, 2019, 10, 7056-7061. | 2.1 | 9 |
| 30 | Revealing the Unusual Rigid Boron Chain Substructure in Hard and Superconductive Tantalum Monoboride. Chemistry - A European Journal, 2019, 25, 5051-5057. | 1.7 | 9 |
| 31 | An electrically conductive and ferromagnetic nano-structure manganese mono-boride with high Vickers hardness. Nanoscale, 2021, 13, 18570-18577. | 2.8 | 9 |
| 32 | Exploring the high pressure behavior of 2D and quasi-3D boron layers in MoB2. RSC Advances, 2014, 4, 52878-52882. | 1.7 | 8 |
| 33 | Modulating Band Gap of Boron Doping in Amorphous Carbon Nano-Film. Materials, 2019, 12, 1780. | 1.3 | 8 |
| 34 | Compressionâ€Driven Internanocluster Reaction for Synthesis of Unconventional Gold Nanoclusters. Angewandte Chemie - International Edition, 2021, 60, 12253-12257. | 7.2 | 8 |
| 35 | Progress in functional studies of transition metal borides*. Chinese Physics B, 2021, 30, 108103. | 0.7 | 8 |
| 36 | Insight the effect of rigid boron chain substructure on mechanical, magnetic and electrical properties of Î²-FeB. Journal of Alloys and Compounds, 2022, 896, 162767. | 2.8 | 8 |

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|---|---|---|---|
| 37 | Investigation the origin and mechanical properties of unusual rigid diamond-like net analogues in manganese tetraboride. International Journal of Refractory Metals and Hard Materials, 2019, 85, 104845. | 1.7 | 7 |
| 38 | Robust Hydrophobic Materials by Surface Modification in Transition-Metal Diborides. ACS Applied Materials & Interfaces, 2021, 13, 58162-58169. | 4.0 | 6 |
| 39 | Synthesis, Characterization, and First-Principles Analysis of the MAB-Like Ternary Transition-Metal Boride Fe(MoB)<sub>2</sub>. Inorganic Chemistry, 2022, 61, 11046-11056. | 1.9 | 6 |
| 40 | Revealing the Unusual Boron-Pinned Layered Substructure in Superconducting Hard Molybdenum Semiboride. ACS Omega, 2021, 6, 21436-21443. | 1.6 | 5 |
| 41 | Tailoring the d-band center by borophene subunits in chromic diboride toward the hydrogen evolution reaction. Inorganic Chemistry Frontiers, 2021, 8, 5130-5138. | 3.0 | 5 |
| 42 | Constructing 1D Boron Chains in the Structure of Transition Metal Monoborides for Hydrogen Evolution Reactions. Catalysts, 2021, 11, 1265. | 1.6 | 5 |
| 43 | Pressure-induced bandgap engineering and photoresponse enhancement of wurtzite CuInS<sub>2</sub> nanocrystals. Nanoscale, 2022, 14, 2668-2675. | 2.8 | 5 |
| 44 | Magnetic, Electronic, and Mechanical Properties of Bulk Îµ-Fe<sub>2</sub>N Synthesized at High Pressures. ACS Omega, 2021, 6, 12591-12597. | 1.6 | 4 |
| 45 | Twinned Martensitic Substructure in a Water Quenched Feâ€“1.0 wt% C Alloy. Acta Metallurgica Sinica (English Letters), 2022, 35, 1157-1163. | 1.5 | 4 |
| 46 | Surface Modification towards Integral Bulk Catalysts of Transition Metal Borides for Hydrogen Evolution Reaction. Catalysts, 2022, 12, 222. | 1.6 | 4 |
| 47 | Hydrogen Evolution Reaction of Î³-Mo0.5W0.5 C Achieved by High Pressure High Temperature Synthesis. Catalysts, 2016, 6, 208. | 1.6 | 3 |
| 48 | Electrical Transport Properties and Band Structure of CuInSe<sub>2</sub> under High Pressure. Journal of Physical Chemistry C, 2019, 123, 20757-20763. | 1.5 | 3 |
| 49 | Pressure and temperature-dependent optical properties of TiTa<sub>2</sub>O<sub>7</sub>. RSC Advances, 2020, 10, 25379-25384. | 1.7 | 3 |
| 50 | Lasing Behavior of a Single ZnO Nanowire Resonating in Fabryâ€“Perot Mode under Pressure. Journal of Physical Chemistry C, 2020, 124, 7523-7530. | 1.5 | 3 |
| 51 | The discovery of a superhard P-type transparent semiconductor: Al<sub>2.69</sub>B<sub>50</sub>. Materials Horizons, 2022, 9, 748-755. | 6.4 | 3 |
| 52 | TiB2-reinforced B4C composites produced by reaction sintering at high-pressure and high temperature. High Pressure Research, 2020, 40, 245-256. | 0.4 | 2 |
| 53 | Pressure-induced structural phase transition in corundum-related class Cu<sub>3</sub>TeO<sub>6</sub>. High Pressure Research, 2021, 41, 318-327. | 0.4 | 2 |
| 54 | Emerging High Coercivity and Huge Exchange Bias Effect in Single Phased Mn 1â˜’ x Ru x Co 2 O 4 Compounds. Advanced Electronic Materials, 2019, 5, 1900572. | 2.6 | 1 |

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|---|---|---|---|
| 55 | Unusual suppression of tungsten 5d electron depletion in superhard tungsten tetraboride solid solution with chromium under compression. Journal of Physics Condensed Matter, 2022, 34, 035401. | 0.7 | 1 |
| 56 | Synthesis and high-pressure studies of strontium diazenide by synchrotron X-ray diffraction and DFT calculations. RSC Advances, 2020, 10, 26308-26312. | 1.7 | 0 |
| 57 | Compressionâ€Driven Internanocluster Reaction for Synthesis of Unconventional Gold Nanoclusters. Angewandte Chemie, 2021, 133, 12361-12365. | 1.6 | 0 |