

# Jin-yang Jiang

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2459083/publications.pdf>

Version: 2024-02-01

77  
papers

1,965  
citations

201674

27  
h-index

276875

41  
g-index

78  
all docs

78  
docs citations

78  
times ranked

1452  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Effect of citric acid-modified chitosan on the hydration and microstructure of Portland cement paste. <i>Journal of Sustainable Cement-Based Materials</i> , 2023, 12, 83-96.  | 3.1  | 1         |
| 2  | Uniaxial tensile constitutive model of fiber reinforced concrete considering bridging effect and its numerical algorithm. <i>Journal of Sustainable Cement-Based Materials</i> , 2023, 12, 207-217.  | 3.1  | 1         |
| 3  | Workability, hydration, microstructure, and mechanical properties of UHPC produced with aeolian sand. <i>Journal of Sustainable Cement-Based Materials</i> , 2022, 11, 57-73.  | 3.1  | 8         |
| 4  | Experiment and simulation of chloride ion transport and binding in concrete under the coupling of diffusion and convection. <i>Journal of Building Engineering</i> , 2022, 45, 103610.   | 3.4  | 11        |
| 5  | Feasibility of producing cement-based sacrificial materials with strontium ferrite: A preliminary study. <i>Construction and Building Materials</i> , 2022, 318, 125967.   | 7.2  | 3         |
| 6  | Insight into ions adsorption at the C-S-H gel-aqueous electrolyte interface: From atomic-scale mechanism to macroscopic phenomena. <i>Construction and Building Materials</i> , 2022, 321, 126179.   | 7.2  | 12        |
| 7  | Dynamic compression mechanical properties of eco-friendly ultra-high performance concrete produced with aeolian sand: Experimental and three-dimensional mesoscopic investigation. <i>International Journal of Impact Engineering</i> , 2022, 164, 104192. | 5.0  | 10        |
| 8  | Calcium silicate hydrate colloid at different humidities: Microstructure, deformation mechanism, and mechanical properties. <i>Acta Materialia</i> , 2022, 228, 117740.  | 7.9  | 9         |
| 9  | Elastic Properties and Deformation Mechanisms in the van der Waals Single-Crystalline Indium Selenide. <i>Physica Status Solidi - Rapid Research Letters</i> , 2022, 16, 2100418.  | 2.4  | 1         |
| 10 | Mechanical properties and antifreeze performance of cement-based composites with liquid paraffin/diatomite capsule low-temperature phase change. <i>Construction and Building Materials</i> , 2022, 341, 127773.   | 7.2  | 8         |
| 11 | THE MULTIFRACTAL PROPERTY OF HETEROGENEOUS MICROSTRUCTURE IN CEMENT PASTE. <i>Fractals</i> , 2021, 29, 2140006.  | 3.7  | 19        |
| 12 | Thermal conductivity and elastic modulus of 3D porous/fractured media considering percolation. <i>International Journal of Engineering Science</i> , 2021, 161, 103456.  | 5.0  | 48        |
| 13 | An investigation on the formation of Friedel's salt in tricalcium silicate combined with metakaolin and limestone systems. <i>Construction and Building Materials</i> , 2021, 284, 122855.   | 7.2  | 18        |
| 14 | Multiple ions transport and interaction in calcium silicate hydrate gel nanopores: Effects of saturation and tortuosity. <i>Construction and Building Materials</i> , 2021, 283, 122638.   | 7.2  | 7         |
| 15 | Observation of Surface Ligands-Controlled Etching of Palladium Nanocrystals. <i>Nano Letters</i> , 2021, 21, 6640-6647.  | 9.1  | 10        |
| 16 | In situ TEM observation of calcium silicate hydrate nanostructure at high temperatures. <i>Cement and Concrete Research</i> , 2021, 149, 106579.   | 11.0 | 28        |
| 17 | The manner and extent to which the hydration shell impacts interactions between hydrated species. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 20496-20508.  | 2.8  | 6         |
| 18 | Hydraulic transport properties of unsaturated cementitious composites with spheroidal aggregates. <i>International Journal of Mechanical Sciences</i> , 2021, 212, 106845.   | 6.7  | 8         |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 19 | Effect of temperature on the capillary transport of sodium sulfate solution in calcium silicate hydrate nanopore: A molecular dynamics study. <i>Construction and Building Materials</i> , 2020, 231, 117111.                                 | 7.2  | 19        |
| 20 | Improving the chloride binding capacity of cement paste by adding nano-Al <sub>2</sub> O <sub>3</sub> : The cases of blended cement pastes. <i>Construction and Building Materials</i> , 2020, 232, 117219.                                   | 7.2  | 52        |
| 21 | Consistent preparation, chemical stability and thermal properties of a shape-stabilized porous carbon/paraffin phase change materials. <i>Journal of Cleaner Production</i> , 2020, 247, 119565.  | 9.3  | 35        |
| 22 | A Novel Heterostructure Based on RuMo Nanoalloys and N-doped Carbon as an Efficient Electrocatalyst for the Hydrogen Evolution Reaction. <i>Advanced Materials</i> , 2020, 32, e2005433.  | 21.0 | 151       |
| 23 | Hydration process and microstructure evolution of low exothermic concrete produced with urea. <i>Construction and Building Materials</i> , 2020, 248, 118640.   | 7.2  | 29        |
| 24 | Nanoengineering Microstructure of Hybrid C-S-H/Silicene Gel. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 17806-17814.   | 8.0  | 11        |
| 25 | New Insights into the Role of Portlandite in the Cement System: Elastic Anisotropy, Thermal Stability, and Structural Compatibility with C-S-H. <i>Crystal Growth and Design</i> , 2020, 20, 2477-2488.                                       | 3.0  | 21        |
| 26 | Aluminum-Induced Interfacial Strengthening in Calcium Silicate Hydrates: Structure, Bonding, and Mechanical Properties. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 2622-2631.  | 6.7  | 28        |
| 27 | Assessing the Adsorption and Diffusion Behavior of Multicomponent Ions in Saturated Calcium Silicate Hydrate Gel Pores Using Molecular Dynamics. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 3718-3727.                       | 6.7  | 28        |
| 28 | Corrosion behavior and mechanism of Cr-Mo alloyed steel: Role of ferrite/bainite duplex microstructure. <i>Journal of Alloys and Compounds</i> , 2019, 809, 151787.   | 5.5  | 60        |
| 29 | Effect of Inhibitor on Adsorption Behavior and Mechanism of Micro-Zone Corrosion on Carbon Steel. <i>Materials</i> , 2019, 12, 1901.  | 2.9  | 7         |
| 30 | Surface Modification of Rusted Rebar and Enhanced Passivation/Anticorrosion Performance in Simulated Concrete Pore Solutions with Different Alkalinity. <i>Metals</i> , 2019, 9, 1050.  | 2.3  | 6         |
| 31 | The influence of sodium sulfate and magnesium sulfate on the stability of bound chlorides in cement paste. <i>Construction and Building Materials</i> , 2019, 228, 116775.  | 7.2  | 27        |
| 32 | Nondestructive experimental characterization and numerical simulation on self-healing and chloride ion transport in cracked ultra-high performance concrete. <i>Construction and Building Materials</i> , 2019, 198, 696-709.                 | 7.2  | 19        |
| 33 | Quasi-static and dynamic mechanical properties of eco-friendly ultra-high-performance concrete containing aeolian sand. <i>Cement and Concrete Composites</i> , 2019, 97, 369-378.  | 10.7 | 58        |
| 34 | Environmentally-friendly superhydrophobic surface based on Al <sub>2</sub> O <sub>3</sub> @KH560@SiO <sub>2</sub> electrokinetic nanoparticle for long-term anti-corrosion in sea water. <i>Applied Surface Science</i> , 2019, 484, 307-316. | 6.1  | 57        |
| 35 | Design of Eco-friendly Ultra-high Performance Concrete with Supplementary Cementitious Materials and Coarse Aggregate. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2019, 34, 1350-1359.                        | 1.0  | 19        |
| 36 | Feasibility of manufacturing ultra-high performance cement-based composites (UHPCCs) with recycled sand: A preliminary study. <i>Waste Management</i> , 2019, 83, 104-112.  | 7.4  | 43        |

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 37 | Improving the chloride binding capacity of cement paste by adding nano-Al <sub>2</sub> O <sub>3</sub> . <i>Construction and Building Materials</i> , 2019, 195, 415-422.   | 7.2  | 56        |
| 38 | Insights into the interfacial strengthening mechanisms of calcium-silicate-hydrate/polymer nanocomposites. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 8247-8266.   | 2.8  | 53        |
| 39 | Design of a novel nanocomposite with C-S-H@LA for thermal energy storage: A theoretical and experimental study. <i>Applied Energy</i> , 2018, 220, 395-407.  | 10.1 | 31        |
| 40 | Calcite crystallization in the cement system: morphological diversity, growth mechanism and shape evolution. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 14174-14181.   | 2.8  | 36        |
| 41 | Experimental and molecular dynamics studies on the transport and adsorption of chloride ions in the nano-pores of calcium silicate phase: The influence of calcium to silicate ratios. <i>Microporous and Mesoporous Materials</i> , 2018, 255, 23-35. | 4.4  | 105       |
| 42 | Mechanical properties and ablation behaviour of nuclear sacrificial materials containing graphene sulfonate nanosheets. <i>Construction and Building Materials</i> , 2018, 191, 69-79.   | 7.2  | 16        |
| 43 | Coupling Mechanism of Saturated Concrete Subjected to Simultaneous Fatigue Loading and Freeze-thaw Cycles. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2018, 33, 1121-1128.   | 1.0  | 5         |
| 44 | Galvanic corrosion of duplex corrosion-resistant steel rebars under carbonated concrete conditions. <i>RSC Advances</i> , 2018, 8, 16626-16635.  | 3.6  | 7         |
| 45 | Modification of incorporation and in-situ polymerization of aniline on the nano-structure and meso-structure of calcium silicate hydrates. <i>Construction and Building Materials</i> , 2018, 182, 459-468.  | 7.2  | 31        |
| 46 | Molecular dynamics study on the weakening effect of moisture content on graphene oxide reinforced cement composite. <i>Chemical Physics Letters</i> , 2018, 708, 177-182.  | 2.6  | 41        |
| 47 | Molecule adsorption and corrosion mechanism of steel under protection of inhibitor in a simulated concrete solution with 3.5% NaCl. <i>RSC Advances</i> , 2018, 8, 20648-20654.  | 3.6  | 27        |
| 48 | Modeling of Ionic Diffusivity for Cement Paste with Solid Mass Fractal Model and Lattice Boltzmann Method. <i>Journal of Materials in Civil Engineering</i> , 2017, 29, .  | 2.9  | 5         |
| 49 | Molecular dynamics study of solvated aniline and ethylene glycol monomers confined in calcium silicate nanochannels: a case study of tobermorite. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 15145-15159.                                  | 2.8  | 37        |
| 50 | The mechanism of cesium ions immobilization in the nanometer channel of calcium silicate hydrate: a molecular dynamics study. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 27974-27986.  | 2.8  | 45        |
| 51 | Formation and Structure of Inhibitive Molecular Film of Oxadiazole on Iron Surface. <i>Journal of Physical Chemistry C</i> , 2017, 121, 21420-21429.   | 3.1  | 5         |
| 52 | Reactive molecular simulation on the calcium silicate hydrates/polyethylene glycol composites. <i>Chemical Physics Letters</i> , 2017, 687, 184-187.   | 2.6  | 26        |
| 53 | Mechanical and thermal properties of graphene sulfonate nanosheet reinforced sacrificial concrete at elevated temperatures. <i>Construction and Building Materials</i> , 2017, 153, 682-694.   | 7.2  | 33        |
| 54 | Effects of graphene sulfonate nanosheets on mechanical and thermal properties of sacrificial concrete during high temperature exposure. <i>Cement and Concrete Composites</i> , 2017, 82, 252-264.   | 10.7 | 60        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 55 | Effect of chromium micro-alloying on the corrosion behavior of a low-carbon steel rebar in simulated concrete pore solutions. Journal Wuhan University of Technology, Materials Science Edition, 2017, 32, 1453-1463.   | 1.0 | 8         |
| 56 | Pitting Corrosion Behaviour of New Corrosion-Resistant Reinforcement Bars in Chloride-Containing Concrete Pore Solution. Materials, 2017, 10, 903.  | 2.9 | 19        |
| 57 | The Passive Film Growth Mechanism of New Corrosion-Resistant Steel Rebar in Simulated Concrete Pore Solution: Nanometer Structure and Electrochemical Study. Materials, 2017, 10, 412.  | 2.9 | 34        |
| 58 | Assessment of Structural Feature and Ionic Diffusivity of ITZ in Blended Cementitious Composites. Journal of Advanced Concrete Technology, 2016, 14, 344-353.   | 1.8 | 6         |
| 59 | Influence of Concrete Properties on Molten Core-Concrete Interaction: A Simulation Study. Advances in Materials Science and Engineering, 2016, 2016, 1-10.  | 1.8 | 1         |
| 60 | Fractal Modeling of Pore Structure and Ionic Diffusivity for Cement Paste. Advances in Materials Science and Engineering, 2016, 2016, 1-8.  | 1.8 | 5         |
| 61 | Passivation Characteristics of Alloy Corrosion-Resistant Steel Cr10Mo1 in Simulating Concrete Pore Solutions: Combination Effects of pH and Chloride. Materials, 2016, 9, 749.  | 2.9 | 39        |
| 62 | Simulation of the cracking and ablation behavior of ferro-siliceous and siliceous nuclear sacrificial concretes. Journal Wuhan University of Technology, Materials Science Edition, 2016, 31, 982-988.  | 1.0 | 2         |
| 63 | Microstructure Characteristic and Electrochemical Corrosion Behavior of Surface Nano-crystallization Modified Carbon Steel. Journal of Iron and Steel Research International, 2016, 23, 1281-1289.  | 2.8 | 11        |
| 64 | Chloride ions transport and adsorption in the nano-pores of silicate calcium hydrate: Experimental and molecular dynamics studies. Construction and Building Materials, 2016, 126, 991-1001.  | 7.2 | 108       |
| 65 | Mechanical and physicochemical properties of ferro-siliceous concrete subjected to elevated temperatures. Construction and Building Materials, 2016, 122, 743-752.  | 7.2 | 33        |
| 66 | Corrosion Behavior of Cr Micro-alloyed Corrosion-resistant Rebar in Neutral Cl <sup>-</sup> -containing Environment. Journal of Iron and Steel Research International, 2016, 23, 608-617.   | 2.8 | 11        |
| 67 | High output power density nanogenerator based on lead-free 0.96(K <sub>0.48</sub> Na <sub>0.52</sub> )(Nb <sub>0.95</sub> Sb <sub>0.05</sub> )O <sub>3</sub> and 0.04Bi <sub>0.5</sub> (Na <sub>0.5</sub> ) piezoelectric nanofibers. RSC Advances, 2016, 6, 66451-66456. | 2.8 | 11        |
| 68 | Multi-scale modeling of the ionic diffusivity of cement-based materials. Journal Wuhan University of Technology, Materials Science Edition, 2016, 31, 123-130.  | 1.0 | 4         |
| 69 | Influence of chloride concentration and pre-passivation on the pitting corrosion resistance of low-alloy reinforcing steel in simulated concrete pore solution. Construction and Building Materials, 2016, 111, 805-813.  | 7.2 | 105       |
| 70 | Thermal behavior of siliceous and ferro-siliceous sacrificial concrete subjected to elevated temperatures. Materials and Design, 2016, 95, 470-480.   | 7.0 | 25        |
| 71 | The interactions of molten core with different types of concretes in EPR severe accident. Journal of Sustainable Cement-Based Materials, 2015, 4, 44-53.  | 3.1 | 1         |
| 72 | Interactive Effect of Mechanical Fatigue Load and the Fatigue Effect of Freeze-Thaw on Combined Damage of Concrete. Journal of Materials in Civil Engineering, 2015, 27, .  | 2.9 | 10        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 73 | Quantitative calculation of hydration products for binary slag-Portland cement system. Journal Wuhan University of Technology, Materials Science Edition, 2014, 29, 972-979.  | 1.0 | 3         |
| 74 | Chloride ion transport in fly ash mortar under action of fatigue loading. Journal Wuhan University of Technology, Materials Science Edition, 2012, 27, 1165-1171.   | 1.0 | 7         |
| 75 | Chloride ion transport performance in slag mortar under fatigue loading. Science China Technological Sciences, 2012, 55, 1359-1364.   | 4.0 | 10        |
| 76 | An analytical method to detect the coupling damage relationship of concrete subjected to bending fatigue and temperature actions. Journal Wuhan University of Technology, Materials Science Edition, 2011, 26, 573-577. | 1.0 | 0         |
| 77 | Cracking resistance performance of super vertical-distance pumped SFRC. Frontiers of Architecture and Civil Engineering in China, 2008, 2, 179-183.   | 0.4 | 4         |