

# Wang Penggang

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5299280/publications.pdf>

Version: 2024-02-01

47  
papers

1,482  
citations

279798

23  
h-index

315739

38  
g-index

47  
all docs

47  
docs citations

47  
times ranked

998  
citing authors

#	ARTICLE	IF	CITATIONS
1	Chloride ions transport and adsorption in the nano-pores of silicate calcium hydrate: Experimental and molecular dynamics studies. <i>Construction and Building Materials</i> , 2016, 126, 991-1001.	7.2	108
2	Low carbon cementitious materials: Sodium sulfate activated ultra-fine slag/fly ash blends at ambient temperature. <i>Journal of Cleaner Production</i> , 2021, 280, 124363.	9.3	105
3	Ecosystem health assessment: A PSR analysis combining AHP and FCE methods for Jiaozhou Bay, China. <i>Ocean and Coastal Management</i> , 2019, 168, 41-50.	4.4	93
4	Pore structure characterization of early-age cement pastes blended with high-volume fly ash. <i>Construction and Building Materials</i> , 2018, 189, 934-946.	7.2	76
5	Experimental and computational investigation of magnesium phosphate cement mortar. <i>Construction and Building Materials</i> , 2016, 112, 331-342.	7.2	75
6	Influence of pore structure and moisture distribution on chloride maximum phenomenon in surface layer of specimens exposed to cyclic drying-wetting condition. <i>Construction and Building Materials</i> , 2017, 131, 16-30.	7.2	65
7	Transport Properties of Sulfate and Chloride Ions Confined between Calcium Silicate Hydrate Surfaces: A Molecular Dynamics Study. <i>Journal of Physical Chemistry C</i> , 2018, 122, 28021-28032.	3.1	60
8	Molecular dynamics study on the mode I fracture of calcium silicate hydrate under tensile loading. <i>Engineering Fracture Mechanics</i> , 2014, 131, 557-569.	4.3	59
9	Theoretical investigation of epoxy detachment from C-S-H interface under aggressive environment. <i>Construction and Building Materials</i> , 2020, 264, 120232.	7.2	53
10	Pozzolanic Reactivity of Silica Fume and Ground Rice Husk Ash as Reactive Silica in a Cementitious System: A Comparative Study. <i>Materials</i> , 2016, 9, 146.	2.9	52
11	A chemo-damage-transport model for chloride ions diffusion in cement-based materials: Combined effects of sulfate attack and temperature. <i>Construction and Building Materials</i> , 2021, 288, 123121.	7.2	52
12	Hydration and mechanical properties of cement-marble powder system incorporating triisopropanolamine. <i>Construction and Building Materials</i> , 2021, 266, 121068.	7.2	50
13	Passivation and depassivation properties of Cr-Mo alloyed corrosion-resistant steel in simulated concrete pore solution. <i>Cement and Concrete Composites</i> , 2022, 126, 104375.	10.7	48
14	Application of neutron radiography in observing and quantifying the time-dependent moisture distributions in multi-cracked cement-based composites. <i>Cement and Concrete Composites</i> , 2017, 78, 13-20.	10.7	47
15	Corrosion inhibition efficiency of compound nitrite with D-sodium gluconate on carbon steel in simulated concrete pore solution. <i>Construction and Building Materials</i> , 2021, 288, 123101.	7.2	45
16	Molecular dynamics study on ions and water confined in the nanometer channel of Friedel's salt: structure, dynamics and interfacial interaction. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 27049-27058.	2.8	40
17	Corrosion mechanism of reinforced bars inside concrete and relevant monitoring or detection apparatus: A review. <i>Construction and Building Materials</i> , 2021, 279, 122432.	7.2	34
18	Effect of anionic emulsifier on cement hydration and its interaction mechanism. <i>Construction and Building Materials</i> , 2015, 93, 1003-1011.	7.2	32

#	ARTICLE	IF	CITATIONS
19	Effectiveness Protection Performance of an Internal Blending Organic Corrosion Inhibitor for Carbon Steel in Chloride Contaminated Simulated Concrete Pore Solution. <i>Journal of Advanced Concrete Technology</i> , 2020, 18, 116-128.	1.8	30
20	Effects of corrosion inhibitor and functional components on the electrochemical and mechanical properties of concrete subject to chloride environment. <i>Construction and Building Materials</i> , 2020, 260, 119724.	7.2	30
21	Utilization of turmeric residue for the preparation of ceramic foam. <i>Journal of Cleaner Production</i> , 2021, 278, 123825.	9.3	30
22	Use of a novel electro-magnetic apparatus to monitor corrosion of reinforced bar in concrete. <i>Sensors and Actuators A: Physical</i> , 2019, 286, 14-27.	4.1	25
23	Coupled application of innovative electromagnetic sensors and digital image correlation technique to monitor corrosion process of reinforced bars in concrete. <i>Cement and Concrete Composites</i> , 2020, 113, 103730.	10.7	25
24	Investigation on sorptivity and capillarity coefficient of mortar and their relationship based on microstructure. <i>Construction and Building Materials</i> , 2020, 265, 120332.	7.2	22
25	Combined application of novel electromagnetic sensors and acoustic emission apparatus to monitor corrosion process of reinforced bars in concrete. <i>Construction and Building Materials</i> , 2020, 245, 118472.	7.2	22
26	Comprehensive resistance of fair-faced concrete suffering from sulfate attack under marine environments. <i>Construction and Building Materials</i> , 2021, 277, 122312.	7.2	22
27	A study on fracture toughness of ultra-high toughness geopolymer composites based on Double-K Criterion. <i>Construction and Building Materials</i> , 2020, 251, 118851.	7.2	19
28	A chemo-thermo-damage-transport model for concrete subjected to combined chloride-sulfate attack considering the effect of calcium leaching. <i>Construction and Building Materials</i> , 2021, 306, 124918.	7.2	18
29	Volume deformation of steam-cured concrete with fly ash during and after steam curing. <i>Construction and Building Materials</i> , 2021, 306, 124854.	7.2	14
30	Effect of Applied Loads on Water and Chloride Penetrations of Strain Hardening Cement-Based Composites. <i>Journal of Materials in Civil Engineering</i> , 2016, 28, .	2.9	13
31	Volume Deformation of Steam-Cured Concrete with Slag during and after Steam Curing. <i>Materials</i> , 2021, 14, 1647.	2.9	13
32	Effects of fineness and substitution ratio of limestone powder on yield stress of cement suspensions. <i>Materials and Structures/Materiaux Et Constructions</i> , 2019, 52, 1.	3.1	11
33	Mechanical properties and volumetric deformation of early-age concrete containing CaO-MgO blended expansive agent and temperature rising inhibitor. <i>Construction and Building Materials</i> , 2021, 299, 123977.	7.2	11
34	Influence of Water-Repellent Treatment with Silicon Resin on Properties of Concrete. <i>Advances in Materials Science and Engineering</i> , 2019, 2019, 1-12.	1.8	10
35	Research on Bonding and Shrinkage Properties of SHCC-Repaired Concrete Beams. <i>Materials</i> , 2020, 13, 1757.	2.9	10
36	Effect of Oxidization Temperatures and Aging on Performance of Carbonate Melt Oxidized Iridium Oxide pH Electrode. <i>Sensors</i> , 2019, 19, 4756.	3.8	8

#	ARTICLE	IF	CITATIONS
37	Influence of Moisture Content on Electromagnetic Response of Concrete Studied Using a Homemade Apparatus. <i>Sensors</i> , 2019, 19, 4637.	3.8	7
38	Durability and Aesthetics of Architectural Concrete under Chloride Attack or Carbonation. <i>Materials</i> , 2020, 13, 839.	2.9	7
39	A multi-scale approach for assessing the robustness of cement-based materials from a yield stress perspective. <i>Construction and Building Materials</i> , 2021, 300, 123998.	7.2	7
40	Influence of Elevated Temperatures and Cooling Method on the Microstructure Development and Phase Evolution of Alkali-Activated Slag. <i>Materials</i> , 2022, 15, 2022.	2.9	7
41	Diffusion coefficient and infinitesimal shrinkage strain of a Strain-Hardening Cement-Based Composite (SHCC) determined by inverse analysis of experiments. <i>Cement and Concrete Composites</i> , 2021, 124, 104259.	10.7	6
42	Acceleration effect of synthesised calcium silicate hydrate with different morphologies and Ca/Si on cement hydration. <i>Advances in Cement Research</i> , 2019, 31, 423-434.	1.6	4
43	Service Life Prediction of Reinforced Concrete in a Sea-Crossing Railway Bridge in Jiaozhou Bay: A Case Study. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 3570.	2.5	4
44	Effects of porous shale waste brick lightweight aggregate on mechanical properties and autogenous deformation of early-age concrete. <i>Construction and Building Materials</i> , 2020, 261, 120450.	7.2	4
45	Separation of Uptake of Water and Ions in Porous Materials Using Energy Resolved Neutron Imaging. <i>Jom</i> , 2020, 72, 3288-3295.	1.9	4
46	Coupled Transport of Sulfate and Chloride Ions With Adsorption Effect: A Numerical Analysis. <i>Frontiers in Materials</i> , 2020, 7, .	2.4	4
47	Permeability behavior of integral water-repellent SHCC under applied load conditions. <i>Journal of Sustainable Cement-Based Materials</i> , 2016, 5, 283-296.	3.1	1