

Wansheng Pei

List of Publications by Year in descending order

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63
papers

2,151
citations

201575

27
h-index

243529

44
g-index

63
all docs

63
docs citations

63
times ranked

808
citing authors

#	ARTICLE	IF	CITATIONS
1	Study on theory model of hydro-thermalâ€“mechanical interaction process in saturated freezing silty soil. <i>International Journal of Heat and Mass Transfer</i> , 2014, 78, 805-819.	2.5	215
2	Experimental and numerical analyses of the thermo-mechanical stability of an embankment with shady and sunny slopes in a permafrost region. <i>Applied Thermal Engineering</i> , 2017, 127, 1478-1487.	3.0	93
3	Experimental study on the freezingâ€“thawing deformation of a silty clay. <i>Cold Regions Science and Technology</i> , 2018, 151, 19-27.	1.6	85
4	Experimental and numerical investigations on frost damage mechanism of a canal in cold regions. <i>Cold Regions Science and Technology</i> , 2015, 116, 1-11.	1.6	84
5	Optimal design of thermal insulation layer of a tunnel in permafrost regions based on coupled heat-water simulation. <i>Applied Thermal Engineering</i> , 2017, 110, 1264-1273.	3.0	80
6	Evaluating the cooling performance of crushed-rock interlayer embankments with unperforated and perforated ventilation ducts in permafrost regions. <i>Energy</i> , 2015, 93, 874-881.	4.5	74
7	Experimental and numerical simulations on heat-water-mechanics interaction mechanism in a freezing soil. <i>Applied Thermal Engineering</i> , 2018, 132, 209-220.	3.0	72
8	A new method to model the thermal conductivity of soilâ€“rock media in cold regions: An example from permafrost regions tunnel. <i>Cold Regions Science and Technology</i> , 2013, 95, 11-18.	1.6	66
9	Moistureâ€“temperature changes and freezeâ€“thaw hazards on a canal in seasonally frozen regions. <i>Natural Hazards</i> , 2014, 72, 287-308.	1.6	64
10	The coupled moistureâ€“heat process of permafrost around a thermokarst pond in Qinghaiâ€“Tibet Plateau under global warming. <i>Journal of Geophysical Research F: Earth Surface</i> , 2014, 119, 836-853.	1.0	64
11	Evaluation of the ground heat control capacity of a novel air-L-shaped TPCT-ground (ALTG) cooling system in cold regions. <i>Energy</i> , 2019, 179, 655-668.	4.5	63
12	A full-scale field experiment to evaluate the cooling performance of a novel composite embankment in permafrost regions. <i>International Journal of Heat and Mass Transfer</i> , 2016, 95, 1047-1056.	2.5	60
13	Numerical evaluation of the cooling performance of a composite L-shaped two-phase closed thermosyphon (LTPCT) technique in permafrost regions. <i>Solar Energy</i> , 2019, 177, 22-31.	2.9	54
14	Numerical study of the thermal characteristics of a shallow tunnel section with a two-phase closed thermosyphon group in a permafrost region under climate warming. <i>International Journal of Heat and Mass Transfer</i> , 2017, 104, 952-963.	2.5	53
15	Geotemperature control performance of two-phase closed thermosyphons in the shady and sunny slopes of an embankment in a permafrost region. <i>Applied Thermal Engineering</i> , 2017, 112, 986-998.	3.0	52
16	Lateral thermal disturbance of embankments in the permafrost regions of the Qinghai-Tibet Engineering Corridor. <i>Natural Hazards</i> , 2015, 78, 2121-2142.	1.6	45
17	Analysis of volumetric unfrozen water contents in freezing soils. <i>Experimental Heat Transfer</i> , 2019, 32, 426-438.	2.3	43
18	Investigation on frost heave of saturatedâ€“unsaturated soils. <i>Acta Geotechnica</i> , 2020, 15, 3295-3306.	2.9	43

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19	Building Earthquake Damage Information Extraction from a Single Post-Earthquake PolSAR Image. <i>Remote Sensing</i> , 2016, 8, 171.	1.8	42
20	Evaluation of calculation models for the unfrozen water content of freezing soils. <i>Journal of Hydrology</i> , 2019, 575, 976-985.	2.3	39
21	Centrifuge and numerical modeling of the frost heave mechanism of a cold-region canal. <i>Acta Geotechnica</i> , 2019, 14, 1113-1128.	2.9	35
22	Effect of hydro-thermal behavior on the frost heave of a saturated silty clay under different applied pressures. <i>Applied Thermal Engineering</i> , 2017, 117, 462-467.	3.0	33
23	Unified Soil Freezing Characteristic for Variably Saturated Saline Soils. <i>Water Resources Research</i> , 2020, 56, e2019WR026648.	1.7	33
24	Effect of Inclination Angle on the Heat Transfer Performance of a Two-Phase Closed Thermosyphon under Low-Temperature Conditions. <i>Journal of Cold Regions Engineering - ASCE</i> , 2014, 28, .	0.5	30
25	Fusion of polarimetric and texture information for urban building extraction from fully polarimetric SAR imagery. <i>Remote Sensing Letters</i> , 2016, 7, 31-40.	0.6	30
26	A generalized model for calculating the thermal conductivity of freezing soils based on soil components and frost heave. <i>International Journal of Heat and Mass Transfer</i> , 2020, 150, 119166.	2.5	30
27	Changes in permafrost extent and active layer thickness in the Northern Hemisphere from 1969 to 2018. <i>Science of the Total Environment</i> , 2022, 804, 150182.	3.9	30
28	Experimental study of the hydro-thermal characteristics and frost heave behavior of a saturated silt within a closed freezing system. <i>Applied Thermal Engineering</i> , 2018, 129, 1447-1454.	3.0	28
29	Effect of Temperature Gradients on the Frost Heave of a Saturated Silty Clay with a Water Supply. <i>Journal of Cold Regions Engineering - ASCE</i> , 2017, 31, .	0.5	27
30	Laboratory investigation of the heat transfer characteristics of a two-phase closed thermosyphon. <i>Cold Regions Science and Technology</i> , 2013, 95, 67-73.	1.6	26
31	Laboratory investigation of the efficiency optimization of an inclined two-phase closed thermosyphon in ambient cool energy utilization. <i>Renewable Energy</i> , 2019, 133, 1178-1187.	4.3	26
32	Multi-scale Experimental Investigations on the Deterioration Mechanism of Sandstone Under Wetting-Drying Cycles. <i>Rock Mechanics and Rock Engineering</i> , 2021, 54, 429-441.	2.6	25
33	Enhancement of convective cooling of the porous crushed-rock layer in cold regions based on experimental investigations. <i>International Communications in Heat and Mass Transfer</i> , 2017, 87, 14-21.	2.9	24
34	A black near-infrared reflective coating based on nano-technology. <i>Energy and Buildings</i> , 2019, 205, 109523.	3.1	24
35	Hydro-thermal behaviors of the ground under different surfaces in the Qinghai-Tibet Plateau. <i>Cold Regions Science and Technology</i> , 2019, 161, 99-106.	1.6	22
36	Study on the frost heave behavior of the freezing unsaturated silty clay. <i>Cold Regions Science and Technology</i> , 2022, 197, 103525.	1.6	20

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37	Water-heat migration and frost-heave behavior of a saturated silty clay with a water supply. <i>Experimental Heat Transfer</i> , 2017, 30, 517-529.	2.3	19
38	Thermo-mechanical stability analysis of cooling embankment with crushed-rock interlayer on a sloping ground in permafrost regions. <i>Applied Thermal Engineering</i> , 2017, 125, 1200-1208.	3.0	19
39	Building Damage Assessment Based on the Fusion of Multiple Texture Features Using a Single Post-Earthquake PolSAR Image. <i>Remote Sensing</i> , 2019, 11, 897.	1.8	18
40	Countermeasures combined with thermosyphons against the thermal instability of high-grade highways in permafrost regions. <i>International Journal of Heat and Mass Transfer</i> , 2020, 153, 119047.	2.5	18
41	Effect of length ratios on the cooling performance of an inclined two-phase closed thermosyphon under negative temperature conditions. <i>Solar Energy</i> , 2020, 204, 600-616.	2.9	18
42	Calculation theories and analysis methods of thermodynamic stability of embankment engineering in cold regions. <i>Science Bulletin</i> , 2014, 59, 261-272.	1.7	17
43	Thermal stability analysis of crushed-rock embankments on a slope in permafrost regions. <i>Cold Regions Science and Technology</i> , 2014, 106-107, 175-182.	1.6	17
44	Study of the time-dependent thermal behavior of the multilayer asphalt concrete pavement in permafrost regions. <i>Construction and Building Materials</i> , 2018, 193, 162-172.	3.2	17
45	Thermo-seismic characteristics of a crushed-rock interlayer embankment on a permafrost slope. <i>Cold Regions Science and Technology</i> , 2018, 151, 249-259.	1.6	15
46	Numerical investigation on the thermal control performance and freeze-thaw resistance of a composite concrete pier with microencapsulated phase change materials. <i>Solar Energy</i> , 2022, 231, 970-984.	2.9	15
47	Thermal control performance of the embankment with L-shaped thermosyphons and insulations along the Gonghe-Yushu Highway. <i>Cold Regions Science and Technology</i> , 2022, 194, 103428.	1.6	14
48	In-situ experimental and numerical investigation on the cooling effect of a multi-lane embankment with combined crushed-rock interlayer and ventilated ducts in permafrost regions. <i>Cold Regions Science and Technology</i> , 2014, 104-105, 97-105.	1.6	13
49	Study on the physical mechanical properties and freeze-thaw resistance of artificial phase change aggregates. <i>Construction and Building Materials</i> , 2022, 329, 127225.	3.2	13
50	Experimental study of optical and cooling performances of CuO and TiO ₂ near-infrared reflective blending coatings. <i>Solar Energy</i> , 2021, 225, 19-32.	2.9	12
51	Prediction of the unfrozen water content in soils based on premelting theory. <i>Journal of Hydrology</i> , 2022, 608, 127505.	2.3	10
52	Finite element analysis of heat and mass transfer in unsaturated freezing soils: Formulation and verification. <i>Computers and Geotechnics</i> , 2022, 149, 104848.	2.3	10
53	Laboratory study on the frost-proof performance of a novel embankment dam in seasonally frozen regions. <i>Journal of Hydrology</i> , 2021, 602, 126769.	2.3	9
54	A self-adaption horizontal thermosyphon technology in uneven thermal control of roadway embankments in sub-arctic permafrost regions. <i>Transportation Geotechnics</i> , 2022, 33, 100714.	2.0	9

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55	Study on the geometric parameters of elbow ventiduct embankment in permafrost regions along the Qinghai-Tibet Engineering Corridor. <i>Cold Regions Science and Technology</i> , 2021, 182, 103209.	1.6	8
56	Numerical optimization of the installing position for the L-shaped TPCT in a permafrost embankment based on the spatial heat control. <i>Solar Energy</i> , 2021, 224, 1406-1425.	2.9	8
57	Thermodynamic responses of a crushed-rock interlayer embankment on sloping permafrost ground under traffic loads. <i>Applied Thermal Engineering</i> , 2018, 144, 670-680.	3.0	7
58	Experimental study on the startup and heat transfer behaviors of a two-phase closed thermosyphon at subzero temperatures. <i>International Journal of Heat and Mass Transfer</i> , 2022, 190, 122283.	2.5	7
59	Two New Polarimetric Feature Parameters for the Recognition of the Different Kinds of Buildings in Earthquake-Stricken Areas Based on Entropy and Eigenvalues of PolSAR Decomposition. <i>Remote Sensing</i> , 2018, 10, 1613.	1.8	6
60	Thermo-seismic performances of a unilateral two-phase closed thermosyphon (TPCT) embankment in earthquake-prone permafrost regions. <i>Transportation Geotechnics</i> , 2021, 27, 100456.	2.0	5
61	A non-local frost heave model based on peridynamics theory. <i>Computers and Geotechnics</i> , 2022, 145, 104675.	2.3	5
62	A developed method to measure and calculate the solar albedo of discrete-particle layers. <i>Solar Energy</i> , 2019, 194, 671-681.	2.9	4
63	A hydraulic conductivity model of frozen soils with the consideration of water films. <i>European Journal of Soil Science</i> , 2022, 73, .	1.8	4