

# Tae-Hyuk Kwon

## List of Publications by Year in descending order

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81  
papers

1,434  
citations

304602

22  
h-index

360920

35  
g-index

84  
all docs

84  
docs citations

84  
times ranked

1307  
citing authors

#	ARTICLE	IF	CITATIONS
1	Entrapment of clay particles enhances durability of bacterial biofilm-associated bioclogging in sand. <i>Acta Geotechnica</i> , 2022, 17, 119-129.	2.9	4
2	Effect of Salt Water on the Process of Microbially Induced Carbonate Precipitation. , 2022, , .		1
3	Grain-Scale Tensile and Shear Strengths of Glass Beads Cemented by MICP. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2022, 148, .	1.5	9
4	Sensitivity analysis of influencing parameters on slit-type barrier performance against debris flow using 3D-based numerical approach. <i>International Journal of Sediment Research</i> , 2021, 36, 50-62.	1.8	5
5	Assessment of barrier location effect on debris flow based on smoothed particle hydrodynamics (SPH) simulation on 3D terrains. <i>Landslides</i> , 2021, 18, 217-234.	2.7	23
6	Preliminary report of a catastrophic landslide that occurred in Gokseong County, South Jeolla Province, South Korea, on August 7, 2020. <i>Landslides</i> , 2021, 18, 1465-1469.	2.7	7
7	Relaxation behavior in low-frequency complex conductivity of sands caused by bacterial growth and biofilm formation by <i>Shewanella oneidensis</i> under a high-salinity condition. <i>Geophysics</i> , 2021, 86, B389-B400.	1.4	4
8	A Newly Developed State-of-the-Art Full-Scale Excavation Testing Apparatus for Tunnel Boring Machine (TBM). <i>KSCE Journal of Civil Engineering</i> , 2021, 25, 4856-4867.	0.9	5
9	Effect of Soft Viscoelastic Biopolymer on the Undrained Shear Behavior of Loose Sands. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2021, 147, .	1.5	4
10	Auto-detection of acoustic emission signals from cracking of concrete structures using convolutional neural networks: Upscaling from specimen. <i>Expert Systems With Applications</i> , 2021, 186, 115863.	4.4	15
11	A Case Study on the Closed-Type Barrier Effect on Debris Flows at Mt. Woomyeon, Korea in 2011 via a Numerical Approach. <i>Energies</i> , 2021, 14, 7890.	1.6	1
12	Fines migration and pore clogging induced by single- and two-phase fluid flows in porous media: From the perspectives of particle detachment and particle-level forces. <i>Geomechanics for Energy and the Environment</i> , 2020, 23, 100131.	1.2	28
13	Photoelastic observation of toughness-dominant hydraulic fracture propagation across an orthogonal discontinuity in soft, viscoelastic layered formations. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2020, 134, 104438.	2.6	17
14	Microbiology and Microbial Products for Enhanced Oil Recovery. , 2020, , 27-65.		4
15	Theory and Experiments. , 2020, , 67-108.		1
16	Modeling and Simulation. , 2020, , 109-168.		0
17	An Integrated Approach to Real-Time Acoustic Emission Damage Source Localization in Piled Raft Foundations. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 8727.	1.3	7
18	Long-Term Remote Monitoring of Ground Deformation Using Sentinel-1 Interferometric Synthetic Aperture Radar (InSAR): Applications and Insights into Geotechnical Engineering Practices. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 7447.	1.3	18

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19	Study on Viscous Fluid Flow in Disordered-Deformable Porous Media Using Hydro-mechanically Coupled Pore-Network Modeling. <i>Transport in Porous Media</i> , 2020, 133, 207-227.	1.2	6
20	Review on geotechnical engineering properties of sands treated by microbially induced calcium carbonate precipitation (MICP) and biopolymers. <i>Construction and Building Materials</i> , 2020, 246, 118415.	3.2	155
21	Surface-erosion behaviour of biopolymer-treated soils assessed by EFA. <i>Geotechnique Letters</i> , 2020, 10, 106-112.	0.6	45
22	Effect of Fluid-Rock Interactions on In Situ Bacterial Alteration of Interfacial Properties and Wettability of CO <sub>2</sub> -Brine-Mineral Systems for Geologic Carbon Storage. <i>Environmental Science &amp; Technology</i> , 2020, 54, 15355-15365.	4.6	11
23	Fluid-driven mechanical responses of deformable porous media during two-phase flows: Hele-Shaw experiments and hydro-mechanically coupled pore network modeling. <i>E3S Web of Conferences</i> , 2020, 205, 08009.	0.2	0
24	Video data of hydraulic fracture propagation in two-dimensionally confined gelatin plates. <i>Data in Brief</i> , 2019, 25, 104096.	0.5	1
25	Characteristics of steady-state propagation of hydraulic fractures in ductile elastic and two-dimensionally confined plate media. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2019, 114, 164-174.	2.6	9
26	The Production-Induced Geomechanical Property Changes during Gas Production from Gas Hydrate Deposits. , 2019, , .		0
27	Impact of Interbedded Structure of Sand and Clay Layers on Geomechanical Responses of Hydrate-Bearing Sediments During Depressurization. , 2019, , .		0
28	Modification of Interfacial Tension and Wettability in Oil-Brine-Quartz System by in Situ Bacterial Biosurfactant Production at Reservoir Conditions: Implications for Microbial Enhanced Oil Recovery. <i>Energy &amp; Fuels</i> , 2019, 33, 4909-4920.	2.5	30
29	X-Ray Computed Microtomography Imaging of Abiotic Carbonate Precipitation in Porous Media From a Supersaturated Solution: Insights Into Effect of CO <sub>2</sub> Mineral Trapping on Permeability. <i>Water Resources Research</i> , 2019, 55, 3835-3855.	1.7	16
30	Systematic Modeling Approach to Selective Plugging Using In Situ Bacterial Biopolymer Production and Its Potential for Microbial-enhanced Oil Recovery. <i>Geomicrobiology Journal</i> , 2019, 36, 468-481.	1.0	19
31	Study of Korea Early Warning System for Slope Failure. <i>Korean Society of Hazard Mitigation</i> , 2019, 19, 73-81.	0.1	2
32	Numerical Computation of Hydraulic Conductivity of Sand Using X-ray Microtomography Imaging of a Pore Structure. <i>Korean Society of Hazard Mitigation</i> , 2019, 19, 187-192.	0.1	0
33	Depressurization-Induced Fines Migration in Sediments Containing Methane Hydrate: X-Ray Computed Tomography Imaging Experiments. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 2539-2558.	1.4	42
34	Effect of Electric Field on Gas Hydrate Nucleation Kinetics: Evidence for the Enhanced Kinetics of Hydrate Nucleation by Negatively Charged Clay Surfaces. <i>Environmental Science &amp; Technology</i> , 2018, 52, 3267-3274.	4.6	48
35	Modeling of Permeability Reduction in Bioclogged Porous Sediments. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2018, 144, .	1.5	14
36	Improvement of Surface Erosion Resistance of Sand by Microbial Biopolymer Formation. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2018, 144, .	1.5	65

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37	Effect of Pore Size Distribution on Dissociation Temperature Depression and Phase Boundary Shift of Gas Hydrate in Various Fine-Grained Sediments. <i>Energy &amp; Fuels</i> , 2018, 32, 5321-5330.	2.5	38
38	Effects of bacterial dextran on soil geophysical properties. <i>Environmental Geotechnics</i> , 2018, 5, 114-122.	1.3	8
39	Effect of slit-type barrier on characteristics of water-dominant debris flows: small-scale physical modeling. <i>Landslides</i> , 2018, 15, 111-122.	2.7	31
40	Microbial community analyses of produced waters from high-temperature oil reservoirs reveal unexpected similarity between geographically distant oil reservoirs. <i>Microbial Biotechnology</i> , 2018, 11, 788-796.	2.0	31
41	Effect of Moisture Content and Particle Size on Extinction Coefficients of Soils Using Terahertz Time-Domain Spectroscopy. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2017, 7, 529-535.	2.0	13
42	Visualization and prediction of supercritical CO <sub>2</sub> distribution in sandstones during drainage: An in situ synchrotron X-ray micro-computed tomography study. <i>International Journal of Greenhouse Gas Control</i> , 2017, 66, 230-245.	2.3	21
43	Hydromechanical responses of coal powders by CO <sub>2</sub> adsorption. <i>Environmental Geotechnics</i> , 2017, 4, 94-102.	1.3	1
44	Biosurfactant as an Enhancer of Geologic Carbon Storage: Microbial Modification of Interfacial Tension and Contact Angle in Carbon dioxide/Water/Quartz Systems. <i>Frontiers in Microbiology</i> , 2017, 8, 1285.	1.5	15
45	The emerging role of 4D synchrotron X-ray micro-tomography for climate and fossil energy studies: five experiments showing the present capabilities at beamline 8.3.2 at the Advanced Light Source. <i>Journal of Synchrotron Radiation</i> , 2017, 24, 1237-1249.	1.0	10
46	In situ viscoelastic properties of insoluble and porous polysaccharide biopolymer dextran produced by <i>Leuconostoc mesenteroides</i> using particle-tracking microrheology. <i>Geomechanics and Engineering</i> , 2017, 12, 849-862.	0.9	5
47	Measuring elastic modulus of bacterial biofilms in a liquid phase using atomic force microscopy. <i>Geomechanics and Engineering</i> , 2017, 12, 863-870.	0.9	7
48	Use of a Pre-Drilled Hole for Implementing Thermal Needle Probe Method for Soils and Rocks. <i>Energies</i> , 2016, 9, 846.	1.6	5
49	Geomechanical, Hydraulic and Thermal Characteristics of Deep Oceanic Sandy Sediments Recovered during the Second Ulleung Basin Gas Hydrate Expedition. <i>Energies</i> , 2016, 9, 775.	1.6	18
50	Roles of spacing and angle of slit-type barriers on velocity reduction of debris flows. <i>Japanese Geotechnical Society Special Publication</i> , 2016, 2, 963-966.	0.2	0
51	Preliminary study on P-wave monitoring of soil erosion in SRICOS-EFA method. <i>Japanese Geotechnical Society Special Publication</i> , 2016, 2, 1757-1760.	0.2	0
52	Analysis of laboratory data on ultrasonic monitoring of permeability reduction due to biopolymer formation in unconsolidated granular media. <i>Geophysical Prospecting</i> , 2016, 64, 445-455.	1.0	1
53	<i>P</i> and <i>S</i> wave responses of bacterial biopolymer formation in unconsolidated porous media. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2016, 121, 1158-1177.	1.3	26
54	Observation of the Degradation Characteristics and Scale of Unevenness on Three-dimensional Artificial Rock Joint Surfaces Subjected to Shear. <i>Rock Mechanics and Rock Engineering</i> , 2016, 49, 3-17.	2.6	38

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55	Experimental investigation on the variation of thermal conductivity of soils with effective stress, porosity, and water saturation. <i>Geomechanics and Engineering</i> , 2016, 11, 771-785.	0.9	10
56	Ultrasonic P-Wave Reflection Monitoring of Soil Erosion for Erosion Function Apparatus. <i>Geotechnical Testing Journal</i> , 2016, 39, 301-314.	0.5	15
57	Interactions between hydraulic fracture and interfaces in layered formations. , 2016, , 217-221.		0
58	A small pore size effect on dissociation behavior of gas hydrates in fine-grained sediments. , 2016, , 459-462.		1
59	Observations of pore-scale growth patterns of carbon dioxide hydrate using X-ray computed microtomography. <i>Geochemistry, Geophysics, Geosystems</i> , 2015, 16, 912-924.	1.0	55
60	Rheological Properties of Cemented Tailing Backfill and the Construction of a Prediction Model. <i>Materials</i> , 2015, 8, 2076-2092.	1.3	25
61	Preliminary Study of Geophysical Monitoring of Bioclogging Caused by Bacterial Biopolymer Accumulation in Sands. , 2014, , .		1
62	Diffusive and Convective Transport of Disposed CO <sub>2</sub> in Porous Media: A Numerical Approach. , 2014, , .		1
63	Site characterization and geotechnical aspects on geological storage of CO <sub>2</sub> in Korea. <i>Geosciences Journal</i> , 2014, 18, 167-179.	0.6	20
64	Geomechanical and Thermal Responses of Hydrate-Bearing Sediments Subjected to Thermal Stimulation: Physical Modeling Using a Geotechnical Centrifuge. <i>Energy &amp; Fuels</i> , 2013, 27, 4507-4522.	2.5	29
65	Effect of CO <sub>2</sub> hydrate formation on seismic wave velocities of fine-grained sediments. <i>Geochemistry, Geophysics, Geosystems</i> , 2013, 14, 1787-1799.	1.0	14
66	High-frequency seismic response during permeability reduction due to biopolymer clogging in unconsolidated porous media. <i>Geophysics</i> , 2013, 78, EN117-EN127.	1.4	27
67	Submarine Slope Failure Primed and Triggered by Bottom Water Warming in Oceanic Hydrate-Bearing Deposits. <i>Energies</i> , 2012, 5, 2849-2873.	1.6	28
68	Thermal Dissociation Behavior and Dissociation Enthalpies of Methane-Carbon Dioxide Mixed Hydrates. <i>Journal of Physical Chemistry B</i> , 2011, 115, 8169-8175.	1.2	29
69	Geotechnical properties of deep oceanic sediments recovered from the hydrate occurrence regions in the Ullung Basin, East Sea, offshore Korea. <i>Marine and Petroleum Geology</i> , 2011, 28, 1870-1883.	1.5	61
70	Effect of Partial Water Saturation on Attenuation Characteristics of Low Porosity Rocks. <i>Rock Mechanics and Rock Engineering</i> , 2011, 44, 245-251.	2.6	11
71	Seismic monitoring of permeability reduction due to biopolymer formation in unconsolidated materials. , 2011, , .		3
72	An experimental procedure for evaluating the consolidation state of marine clay deposits using shear wave velocity. <i>Smart Structures and Systems</i> , 2011, 7, 289-302.	1.9	4

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73	Shear behavior of rectangular-shaped asperities in rock joints. KSCE Journal of Civil Engineering, 2010, 14, 323-332.	0.9	29
74	Destabilization of Marine Gas Hydrate-Bearing Sediments Induced by a Hot Wellbore: A Numerical Approach. Energy & Fuels, 2010, 24, 5493-5507.	2.5	33
75	Evolution of Compressional Wave Velocity during CO <sub>2</sub> Hydrate Formation in Sediments. Energy & Fuels, 2009, 23, 5731-5736.	2.5	15
76	Gas hydrate dissociation in sediments: Pressure-temperature evolution. Geochemistry, Geophysics, Geosystems, 2008, 9, .	1.0	100
77	Dissociation Behavior of CO <sub>2</sub> Hydrate in Sediments during Isochoric Heating. Environmental Science & Technology, 2008, 42, 8571-8577.	4.6	18
78	MONITORING OF CO <sub>2</sub> HYDRATE FORMATION IN SEDIMENTS USING COMPRESSIONAL WAVE VELOCITY. , 2008, , .		0
79	Smart geophysical characterization of particulate materials in a laboratory. Smart Structures and Systems, 2005, 1, 217-233.	1.9	9
80	Characterization of soil properties using elastic and electromagnetic waves. , 2003, 5057, 440.		0
81	Monitoring of Low-Frequency Seismic Responses during Microbial Biofilm and EPS Formations in Unconsolidated Sediments. Environmental Geotechnics, 0, , 1-10.	1.3	2