J J Jiao

List of Publications by Year
in descending order

139 papers	5,360 citations	61984 43 h-index	102487 66 g-index
142 all docs	142 docs citations	142 times ranked	3919 citing authors

#	Article	IF	Citations
1	Review on climate change on the Tibetan Plateau during the last half century. Journal of Geophysical Research D: Atmospheres, 2016, 121, 3979-4007.	3.3	412
2	Origin of groundwater salinity and hydrogeochemical processes in the confined Quaternary aquifer of the Pearl River Delta, China. Journal of Hydrology, 2012, 438-439, 112-124.	5.4	182
3	An analytical solution of groundwater response to tidal fluctuation in a leaky confined aquifer. Water Resources Research, 1999, 35, 747-751.	4.2	169
4	Abnormally High Ammonium of Natural Origin in a Coastal Aquifer-Aquitard System in the Pearl River Delta, China. Environmental Science & Technology, 2010, 44, 7470-7475.	10.0	140
5	Seawater intrusion and coastal aquifer management in China: a review. Environmental Earth Sciences, 2014, 72, 2811-2819.	2.7	131
6	Heavy metal and trace element distributions in groundwater in natural slopes and highly urbanized spaces in Mid-Levels area, Hong Kong. Water Research, 2006, 40, 753-767.	11.3	117
7	Tide-induced groundwater fluctuation in a coastal leaky confined aquifer system extending under the sea. Water Resources Research, 2001, 37, 1165-1171.	4.2	108
8	Confined groundwater zone and slope instability in weathered igneous rocks in Hong Kong. Engineering Geology, 2005, 80, 71-92.	6.3	107
9	Occurrence and geochemical behavior of arsenic in a coastal aquiferâ€“aquitard system of the Pearl River Delta, China. Science of the Total Environment, 2012, 427-428, 286-297.	8.0	100
10	Groundwater-derived land subsidence in the North China Plain. Environmental Earth Sciences, 2015, 74, 1415-1427.	2.7	100
11	Submarine groundwater discharge estimation in an urbanized embayment in Hong Kong via short-lived radium isotopes and its implication of nutrient loadings and primary production. Marine Pollution Bulletin, 2014, 82, 144-154.	5.0	91
12	Analytical studies of groundwater-head fluctuation in a coastal confined aquifer overlain by a semi-permeable layer with storage. Advances in Water Resources, 2001, 24, 565-573.	3.8	88
13	Estimation of submarine groundwater discharge and associated nutrient fluxes in Tolo Harbour, Hong Kong. Science of the Total Environment, 2012, 433, 427-433.	8.0	87
14	Review on airflow in unsaturated zones induced by natural forcings. Water Resources Research, 2013, 49, 6137-6165.	4.2	87
15	Impact of Coastal Land Reclamation on Ground Water Level and the Sea Water Interface. Ground Water, 2007, 45, 362-367.	1.3	83
16	Tide-induced seawaterâ€“groundwater circulation in a multi-layered coastal leaky aquifer system. Journal of Hydrology, 2003, 274, 211-224.	5.4	82
17	Analytical solutions of tidal groundwater flow in coastal two-aquifer system. Advances in Water Resources, 2002, 25, 417-426.	3.8	80
18	Submarine groundwater discharge and nutrient loadings in Tolo Harbor, Hong Kong using multiple geotracer-based models, and their implications of red tide outbreaks. Water Research, 2016, 102, 11-31.	11.3	78

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19	Nitrogen fate in a subtropical mangrove swamp: Potential association with seawater-groundwater exchange. Science of the Total Environment, 2018, 635, 586-597.	8.0	77
20	Numerical Simulation of Pumping Tests in Multilayer Wells with Non-Darcian Flow in the Wellbore. Ground Water, 1999, 37, 465-474.	1.3	73
21	Groundwater response to tidal fluctuation in a two-zone aquifer. Journal of Hydrology, 2010, 381, 364-371.	5.4	70
22	Increased Water Storage in the Qaidam Basin, the North Tibet Plateau from GRACE Gravity Data. PLoS ONE, 2015, 10, e0141442.	2.5	69
23	Estimation of submarine groundwater discharge in Plover Cove, Tolo Harbour, Hong Kong by 222Rn. Marine Chemistry, 2008, 111, 160-170.	2.3	68
24	A falling-pressure method for measuring air permeability of asphalt in laboratory. Journal of Hydrology, 2004, 286, 69-77.	5.4	66
25	Tide-induced groundwater level fluctuation in coastal aquifers bounded by L-shaped coastlines. Water Resources Research, 2002, 38, 6-1-6-8.	4.2	62
26	An integrated permeabilityâ€depth model for Earth's crust. Geophysical Research Letters, 2014, 41, 7539-7545.	4.0	62
27	Modeling the influences of land reclamation on groundwater systems: A case study in Shekou peninsula, Shenzhen, China. Engineering Geology, 2010, 114, 144-153.	6.3	61
28	Submarine fresh groundwater discharge into Laizhou Bay comparable to the Yellow River flux. Scientific Reports, 2015, 5, 8814.	3.3	61
29	Temporal 222Rn distributions to reveal groundwater discharge into desert lakes: Implication of water balance in the Badain Jaran Desert, China. Journal of Hydrology, 2016, 534, 87-103.	5.4	61
30	Simulated groundwater interaction with rivers and springs in the Heihe river basin. Hydrological Processes, 2007, 21, 2794-2806.	2.6	60
31	In situ rainfall infiltration studies at a hillside in Hubei Province, China. Engineering Geology, 2000, 57, 31-38.	6.3	58
32	Contribution of the aquitard to the regional groundwater hydrochemistry of the underlying confined aquifer in the Pearl River Delta, China. Science of the Total Environment, 2013, 461-462, 663-671.	8.0	58
33	Analytical Studies on the Impact of Land Reclamation on Ground Water Flow. Ground Water, 2001, 39, 912-920.	1.3	57
34	A nonlinear dynamical model of landslide evolution. Geomorphology, 2002, 43, 77-85.	2.6	57
35	A Cusp Catastrophe Model of Instability of Slip-buckling Slope. Rock Mechanics and Rock Engineering, 2001, 34, 119-134.	5.4	54
36	Analysis of soil consolidation by vertical drains with double porosity model. International Journal for Numerical and Analytical Methods in Geomechanics, 2004, 28, 1385-1400.	3.3	52

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37	Instability leading to coal bumps and nonlinear evolutionary mechanisms for a coal-pillar-and-roof system. International Journal of Solids and Structures, 2006, 43, 7407-7423.	2.7	51
38	Assessing major factors affecting shallow groundwater geochemical evolution in a highly urbanized coastal area of Shenzhen City, China. Journal of Geochemical Exploration, 2018, 184, 17-27.	3.2	51
39	A nonlinear catastrophe model of instability of planar-slip slope and chaotic dynamical mechanisms of its evolutionary process. International Journal of Solids and Structures, 2001, 38, 8093-8109.	2.7	49
40	Enrichment and mechanisms of heavy metal mobility in a coastal quaternary groundwater system of the Pearl River Delta, China. Science of the Total Environment, 2016, 545-546, 493-502.	8.0	48
41	A review of specific storage in aquifers. Journal of Hydrology, 2020, 581, 124383.	5.4	48
42	Satellite-based estimates of groundwater depletion in the Badain Jaran Desert, China. Scientific Reports, 2015, 5, 8960.	3.3	47
43	Influence of the tide on the mean watertable in an unconfined, anisotropic, inhomogeneous coastal aquifer. Advances in Water Resources, 2003, 26, 9-16.	3.8	46
44	Calibration of a large-scale groundwater flow model using GRACE data: a case study in the Qaidam Basin, China. Hydrogeology Journal, 2015, 23, 1305-1317.	2.1	44
45	A two-dimensional analytical solution for groundwater flow in a leaky confined aquifer system near open tidal water. Hydrological Processes, 2001, 15, 573-585.	2.6	43
46	Tidal groundwater level fluctuations in L-shaped leaky coastal aquifer system. Journal of Hydrology, 2002, 268, 234-243.	5.4	42
47	Effects of inland water level oscillation on groundwater dynamics and land-sourced solute transport in a coastal aquifer. Coastal Engineering, 2016, 114, 347-360.	4.0	41
48	Hydrogeochemical characteristics in coastal groundwater mixing zone. Applied Geochemistry, 2017, 85, 49-60.	3.0	40
49	Detection of large-scale groundwater storage variability over the karstic regions in Southwest China. Journal of Hydrology, 2019, 569, 409-422.	5.4	39
50	The predictable time scale of landslides. Bulletin of Engineering Geology and the Environment, 2001, 59, 307-312.	3.5	38
51	Analytical studies on transient groundwater flow induced by land reclamation. Water Resources Research, 2008, 44, .	4.2	36
52	Reconstructed chloride concentration profiles below the seabed in Hong Kong (China) and their implications for offshore groundwater resources. Hydrogeology Journal, 2015, 23, 277-286.	2.1	36
53	Assessment of soil radon potential in Hong Kong, China, using a 10-point evaluation system. Environmental Earth Sciences, 2013, 68, 679-689.	2.7	35
54	Numerical study of airflow in the unsaturated zone induced by sea tides. Water Resources Research, 2008, 44, .	4.2	34

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55	Numerical Simulation of Tracer Tests in Heterogeneous Aquifer. Journal of Environmental Engineering, ASCE, 1998, 124, 510-516.	1.4	33
56	Changes to the groundwater system, from 1888 to present, in a highly-urbanized coastal area in Hong Kong, China. Hydrogeology Journal, 2008, 16, 1527-1539.	2.1	33
57	Evaluation of Water Residence Time, Submarine Groundwater Discharge, and Maximum New Production Supported by Groundwater Borne Nutrients in a Coastal Upwelling Shelf System. Journal of Geophysical Research: Oceans, 2018, 123, 631-655.	2.6	31
58	Groundwater discharge and hydrologic partition of the lakes in desert environment: Insights from stable 18O/2H and radium isotopes. Journal of Hydrology, 2017, 546, 189-203.	5.4	29
59	Evaluation of Groundwater Storage Variations in Northern China Using GRACE Data. Geofluids, 2017, 2017, 1-13.	0.7	29
60	Accumulation and transport of ammonium in aquitards in the Pearl River Delta (China) in the last 10,000Â years: conceptual and numerical models. Hydrogeology Journal, 2013, 21, 961-976.	2.1	28
61	Nonlinear Evolutionary Mechanisms of Instability of Plane-Shear Slope: Catastrophe, Bifurcation, Chaos and Physical Prediction. Rock Mechanics and Rock Engineering, 2006, 39, 59-76.	5.4	27
62	One-dimensional airflow in unsaturated zone induced by periodic water table fluctuation. Water Resources Research, 2005, 41, .	4.2	26
63	Semi-numerical simulation of groundwater flow induced by periodic forcing with a case-study at an island aquifer. Journal of Hydrology, 2006, 327, 438-446.	5.4	26
64	Airflow induced by pumping tests in unconfined aquifer with a lowâ€permeability cap. Water Resources Research, 2009, 45, .	4.2	26
65	Hydrochemical reactions and origin of offshore relatively fresh pore water from core samples in Hong Kong. Journal of Hydrology, 2016, 537, 283-296.	5.4	26
66	Evaluation of lacustrine groundwater discharge, hydrologic partitioning, and nutrient budgets in a proglacial lake in the Qinghaiâ€“Tibet Plateau: using ²²²Rn and stable isotopes. Hydrology and Earth System Sciences, 2018, 22, 5579-5598.	4.9	26
67	A new model for predicting relative nonwetting phase permeability from soil water retention curves. Water Resources Research, 2011, 47, .	4.2	25
68	A 5,600-year-old wooden well in Zhejiang Province, China. Hydrogeology Journal, 2007, 15, 1021-1029.	2.1	24
69	Using Tidal Fluctuationâ€Induced Dynamics of Radium Isotopes (²²⁴Ra, ²²³Ra,) Tj ETQq1 1 0.784314 rgBT /(Groundwater Mixing Zone. Water Resources Research, 2018, 54, 2909-2930.	4.2	24
70	Drought and Flood Characterization and Connection to Climate Variability in the Pearl River Basin in Southern China Using Long-Term GRACE and Reanalysis Data. Journal of Climate, 2021, 34, 2053-2078.	3.2	24
71	Chloride as tracer of solute transport in the aquiferâ€“aquitard system in the Pearl River Delta, China. Hydrogeology Journal, 2016, 24, 1121-1132.	2.1	23
72	Inorganic carbon and alkalinity biogeochemistry and fluxes in an intertidal beach aquifer: Implications for ocean acidification. Journal of Hydrology, 2021, 595, 126036.	5.4	23

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73	Abnormal fluid pressures caused by deposition and erosion of sedimentary basins. Journal of Hydrology, 1998, 204, 124-137.	5.4	22
74	Seasonality of Nutrient Flux and Biogeochemistry in an Intertidal Aquifer. Journal of Geophysical Research: Oceans, 2018, 123, 6116-6135.	2.6	22
75	Macrobenthic Community in Tolo Harbour, Hong Kong and its Relations with Heavy Metals. Estuaries and Coasts, 2010, 33, 600-608.	2.2	21
76	Numerical studies of vertical Cl^{â˜'}, Î´²H and Î´¹⁸O profiles in the aquifer-aquitard system in the Pearl River Delta, China. Hydrological Processes, 2015, 29, 4199-4209.	2.6	21
77	Significant chemical fluxes from natural terrestrial groundwater rival anthropogenic and fluvial input in a large-river deltaic estuary. Water Research, 2018, 144, 603-615.	11.3	21
78	Confined groundwater near the rockhead in igneous rocks in the Mid-Levels area, Hong Kong, China. Engineering Geology, 2006, 84, 207-219.	6.3	20
79	Tidal Fluctuation Influenced Physicochemical Parameter Dynamics in Coastal Groundwater Mixing Zone. Estuaries and Coasts, 2018, 41, 988-1001.	2.2	20
80	Tidal Pumpingâ€induced Nutrients Dynamics and Biogeochemical Implications in an Intertidal Aquifer. Journal of Geophysical Research G: Biogeosciences, 2017, 122, 3322-3342.	3.0	19
81	Two-decade variations of fresh submarine groundwater discharge to Tolo Harbour and their ecological significance by coupled remote sensing and radon-222 model. Water Research, 2020, 178, 115866.	11.3	19
82	Reply [to â€œComment on â€˜An analytical solution of groundwater response to tidal fluctuation in a leaky confined aquiferâ€™ by Jiu Jimmy Jiao and Zhonghua Tangâ€]. Water Resources Research, 2001, 37, 187-188.	4.2	18
83	Theoretical study of the impact of tide-induced airflow on hydraulic head in air-confined coastal aquifers. Hydrological Sciences Journal, 2010, 55, 435-445.	2.6	18
84	Air and water flows in a vertical sand column. Water Resources Research, 2011, 47, .	4.2	18
85	Investigation on bacterial community and diversity in the multilayer aquifer-aquitard system of the Pearl River Delta, China. Ecotoxicology, 2014, 23, 2041-2052.	2.4	18
86	Tidal induced dynamics and geochemical reactions of trace metals (Fe, Mn, and Sr) in the salinity transition zone of an intertidal aquifer. Science of the Total Environment, 2019, 664, 1133-1149.	8.0	18
87	Arsenic K-edge X-ray absorption near-edge spectroscopy to determine oxidation states of arsenic of a coastal aquiferâ€“aquitard system. Environmental Pollution, 2013, 179, 160-166.	7.5	16
88	Geochemical signature of pore water from core samples and its implications on the origin of saline pore water in Cangzhou, North China Plain. Journal of Geochemical Exploration, 2015, 157, 143-152.	3.2	16
89	Using stable isotopes of surface water and groundwater to quantify moisture sources across the Yellow River source region. Hydrological Processes, 2019, 33, 1835-1850.	2.6	16
90	Effects of Downward Intrusion of Saline Water on Nested Groundwater Flow Systems. Water Resources Research, 2020, 56, e2020WR028377.	4.2	16

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91	Use of Strontium Isotopes to Identify Buried Water Main Leakage Into Groundwater in a Highly Urbanized Coastal Area. Environmental Science & Technology, 2006, 40, 6575-6579.	10.0	15
92	Tracing submarine groundwater discharge flux in Tolo Harbor, Hong Kong (China). Hydrogeology Journal, 2018, 26, 1857-1873.	2.1	15
93	Numerical study of variable-density flow and transport in unsaturatedâ€“saturated porous media. Journal of Contaminant Hydrology, 2015, 182, 117-130.	3.3	14
94	Modeling the Spatial and Seasonal Variations of Groundwater Head in an Urbanized Area under Low Impact Development. Water (Switzerland), 2018, 10, 803.	2.7	14
95	Evaluation of lacustrine groundwater discharge and associated nutrients, trace elements and DIC loadings into Qinghai Lake in Qinghai-Tibetan Plateau, using radium isotopes and hydrological methods. Chemical Geology, 2019, 510, 31-46.	3.3	14
96	Hydrochemistry of formation water with implication to diagenetic reactions in Sanzhao depression and Qijia-gulong depression of Songliao Basin, China. Journal of Geochemical Exploration, 2006, 88, 86-90.	3.2	13
97	Multivariate statistical analyses on the enrichment of arsenic with different oxidation states in the Quaternary sediments of the Pearl River Delta, China. Journal of Geochemical Exploration, 2014, 138, 72-80.	3.2	13
98	The dynamics of dissolved inorganic nitrogen species mediated by fresh submarine groundwater discharge and their impact on phytoplankton community structure. Science of the Total Environment, 2020, 703, 134897.	8.0	13
99	An empirical specific storage-depth model for the Earth's crust. Journal of Hydrology, 2021, 592, 125784.	5.4	12
100	USING SENSITIVITY ANALYSIS TO ASSIST PARAMETER ZONATION IN GROUND WATER FLOW MODEL. Journal of the American Water Resources Association, 1996, 32, 75-87.	2.4	11
101	The Different Characteristics of Aquifer Parameters and Their Implications on Pumping-Test Analysis. Ground Water, 1997, 35, 25-29.	1.3	11
102	Crescent Moon Spring: A Disappearing Natural Wonder in the Gobi Desert, China. Ground Water, 2010, 48, 159-163.	1.3	11
103	Modeling freshening time and hydrochemical evolution of groundwater in coastal aquifers of Shenzhen, China. Environmental Earth Sciences, 2014, 71, 2409-2418.	2.7	11
104	Abundance and Diversity of Aerobic/Anaerobic Ammonia/Ammonium-Oxidizing Microorganisms in an Ammonium-Rich Aquitard in the Pearl River Delta of South China. Microbial Ecology, 2018, 76, 81-91.	2.8	11
105	Unraveling controlling factors of concentration discharge relationships in a fractured aquifer dominant spring-shed: Evidence from mean transit time and radium reactive transport model. Journal of Hydrology, 2019, 571, 528-544.	5.4	11
106	Inter-comparison of radium analysis in coastal sea water of the Asian region. Marine Chemistry, 2013, 156, 138-145.	2.3	10
107	Numerical Modeling of Slug Tests with <scp>MODFLOW</scp> Using Equivalent Well Blocks. Ground Water, 2015, 53, 158-163.	1.3	10
108	Sensitivity Analysis of Leakage Correction of GRACE Data in Southwest China Using A-Priori Model Simulations: Inter-Comparison of Spherical Harmonics, Mass Concentration and In Situ Observations. Sensors, 2019, 19, 3149.	3.8	10

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109	Spatial Characteristics Reveal the Reactive Transport of Radium Isotopes (²²⁴Ra,) Tj ETQq1 1 0.784314 rgBT /Overlock 10 10282-10302.	4.2	10
110	A modification to the van Genuchten model for improved prediction of relative hydraulic conductivity of unsaturated soils. European Journal of Soil Science, 2021, 72, 1354-1372.	3.9	10
111	A new equation for the soil water retention curve. European Journal of Soil Science, 2014, 65, 584-593.	3.9	9
112	Assessing Underground Water Exchange Between Regions Using GRACE Data. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032570.	3.3	9
113	Spreadsheets for the Analysis of Aquifer-Test and Slug-Test Data. Ground Water, 2003, 41, 9-10.	1.3	8
114	Modified Theis equation by considering the bending effect of the confining unit. Advances in Water Resources, 2004, 27, 981-990.	3.8	8
115	Change of groundwater chemistry from 1896 to present in the Mid-Levels area, Hong Kong. Environmental Geology, 2006, 49, 946-959.	1.2	8
116	Analytical studies on transient groundwater flow induced by land reclamation using different fill materials. Hydrological Processes, 2014, 28, 1931-1938.	2.6	8
117	Hydrogeochemistry and fractionation of boron isotopes in the inter-dune aquifer system of Badain Jaran Desert, China. Journal of Hydrology, 2021, 595, 125984.	5.4	8
118	Delineating E. coli occurrence and transport in the sandy beach groundwater system by radon-222. Journal of Hazardous Materials, 2022, 431, 128618.	12.4	8
119	Air and water flows induced by pumping tests in unconfined aquifers with lowâ€permeability zones. Hydrological Processes, 2014, 28, 5450-5464.	2.6	7
120	A preliminary study on the offshore stratigraphy in Hong Kong and its hydrogeological implications. Environmental Earth Sciences, 2016, 75, 1.	2.7	7
121	Influence of Land Reclamation on Fresh Groundwater Lenses in Oceanic Islands: Laboratory and Numerical Validation. Water Resources Research, 2021, 57, e2021WR030238.	4.2	7
122	Dominance of evaporation on lacustrine groundwater discharge to regulate lake nutrient state and algal blooms. Water Research, 2022, 219, 118620.	11.3	7
123	Spatio-temporal trends of heavy metals and source apportionment in Tolo Harbour, Hong Kong. Environmental Earth Sciences, 2010, 60, 1439-1445.	2.7	6
124	Redistribution of groundwater evapotranspiration and water table around a well field in an unconfined aquifer: A simplified analytical model. Journal of Hydrology, 2013, 495, 162-174.	5.4	6
125	Rare Earth Elements Geochemistry and Provenance Discrimination of Sediments in Tolo Harbour, Hong Kong. Marine Georesources and Geotechnology, 2015, 33, 51-57.	2.1	6
126	Sensitivity analysis of pumping tests in non-uniform aquifers. Hydrological Sciences Journal, 1995, 40, 719-737.	2.6	5

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127	Methods to Derive the Differential Equation of the Free Surface Boundary. Ground Water, 2010, 48, 486-493.	1.3	5
128	Methods to Derive the Differential Equation of the Free Surface Boundary. Ground Water, 2011, 49, 133-143.	1.3	5
129	An innovative method to estimate regional-scale hydraulic diffusivity using GRACE data. Hydrological Sciences Journal, 2016, 61, 2694-2703.	2.6	5
130	Control factors on nutrient cycling in the lake water and groundwater of the Badain Jaran Desert, China. Journal of Hydrology, 2021, 598, 126408.	5.4	5
131	Methods to Derive the Differential Equation of the Free Surface Boundary. Ground Water, 2010, 48, 329-332.	1.3	4
132	Air and water flows in a large sand box with a two-layer aquifer system. Hydrogeology Journal, 2013, 21, 977-985.	2.1	4
133	Ceramic Models of Wells in the Han Dynasty (206 BC to AD 220), China. Ground Water, 2008, 46, 782-787.	1.3	3
134	Fractal Behaviors of Hydraulic Head and Surface Runoff of the Nested Groundwater Flow Systems in Response to Rainfall Fluctuations. Geophysical Research Letters, 2022, 49, .	4.0	3
135	Subglacial Meltwater Recharge in the Dongkemadi River Basin, Yangtze River Source Region. Ground Water, 2022, 60, 434-450.	1.3	3
136	Impact of major nearshore land reclamation project on offshore groundwater system. Engineering Geology, 2022, 303, 106672.	6.3	3
137	Temporal variations of physical and hydrochemical properties of springs in the Midâ€Levels area, Hong Kong: results of a 1â€year comprehensive monitoring programme. Hydrological Processes, 2008, 22, 1080-1092.	2.6	2
138	Ground-water flow analysis in the slope above Shum Wan Road, Hong Kong. Environmental and Engineering Geoscience, 2001, 7, 239-250.	0.9	1
139	Analytical Solution of Tidal Loading Effect in a Submarine Leaky Confined Aquifer System. Geofluids, 2019, 2019, 1-15.	0.7	0