

Pavel G Talalay

List of Publications by Year in descending order

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85
papers

753
citations

566801

15
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642321

23
g-index

89
all docs

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docs citations

89
times ranked

353
citing authors

#	ARTICLE	IF	CITATIONS
1	Theoretical and experimental research to remove hot water out of drill hose of deep hot-water drilling system. <i>Polar Science</i> , 2022, 31, 100747.	0.5	0
2	Optimization of Hot-Water Drilling in Ice with Near-Bottom Circulation. <i>Water (Switzerland)</i> , 2022, 14, 127.	1.2	0
3	Antarctic subglacial drilling rig: Part II. Ice and Bedrock Electromechanical Drill (IBED). <i>Annals of Glaciology</i> , 2021, 62, 12-22.	2.8	8
4	Antarctic subglacial drilling rig: Part III. Drilling auxiliaries and environmental measures. <i>Annals of Glaciology</i> , 2021, 62, 24-33.	2.8	0
5	Antarctic subglacial drilling rig: Part IV. Electrical and electronic control system. <i>Annals of Glaciology</i> , 2021, 62, 34-45.	2.8	0
6	Antarctic subglacial drilling rig: Part II. Ice and Bedrock Electromechanical Drill (IBED) – CORRIGENDUM. <i>Annals of Glaciology</i> , 2021, 62, 23-23.	2.8	0
7	Optimization of hot-water ice-coring drills. <i>Annals of Glaciology</i> , 2021, 62, 67-74.	2.8	2
8	Design and analysis of deepwater tension sensors for ice drill application. <i>Annals of Glaciology</i> , 2021, 62, 46-52.	2.8	1
9	Antarctic subglacial drilling rig: Part I. General concept and drilling shelter structure. <i>Annals of Glaciology</i> , 2021, 62, 1-11.	2.8	2
10	Shallow hot-point drill system for active layer temperature measurement along Zhongshan Dome A traverse, Antarctica. <i>Annals of Glaciology</i> , 2021, 62, 157-165.	2.8	2
11	Recoverable autonomous sonde for subglacial lake exploration: electronic control system design. <i>Annals of Glaciology</i> , 2021, 62, 263-279.	2.8	6
12	Recoverable Autonomous Sonde for subglacial lakes exploration: heating control system design. <i>Annals of Glaciology</i> , 2021, 62, 280-292.	2.8	1
13	Ice drilling system with near-bottom hot water circulation. <i>Polar Science</i> , 2021, 28, 100676.	0.5	2
14	Modeling of hot-point drilling in ice. <i>Annals of Glaciology</i> , 2021, 62, 360-373.	2.8	6
15	Perspectives for development of ice drilling technology: continuation of the discussion. <i>Annals of Glaciology</i> , 2021, 62, 143-156.	2.8	2
16	New synthetic fiber armored cable for freezing-in thermal ice probes. <i>Annals of Glaciology</i> , 2021, 62, 179-190.	2.8	3
17	The SUBGLACIOR drilling probe: hydraulic considerations. <i>Annals of Glaciology</i> , 2021, 62, 131-142.	2.8	1
18	Thermal Ice Drilling Technology. Springer Geophysics, 2020, , .	0.9	24

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19	Hot-Point Drills. Springer Geophysics, 2020, , 1-80.	0.9	1
20	Thermal Heads for Melt Drilling to Subglacial Lakes: Design and Testing. Astrobiology, 2020, 20, 142-156.	1.5	12
21	Hot-water coring system with positive displacement motor. Polar Science, 2020, 23, 100502.	0.5	1
22	Power consumption of a Philberth thermal probe in ice sheet exploration. Cold Regions Science and Technology, 2020, 177, 103114.	1.6	5
23	Geothermal heat flux from measured temperature profiles in deep ice boreholes in Antarctica. Cryosphere, 2020, 14, 4021-4037.	1.5	17
24	Hot-Water Ice Drills. Springer Geophysics, 2020, , 145-250.	0.9	0
25	Electric Thermal Coring Drills. Springer Geophysics, 2020, , 81-144.	0.9	0
26	Controlling Mechanism of Temperature Dependence of Kinetic Friction of Ice. Journal of Tribology, 2020, 142, .	1.0	3
27	Ice drills recovery using chemical deicers. Polar Science, 2019, 19, 49-56.	0.5	12
28	Experimental investigation of water freezing and estimating refreezing time in ice boreholes. Cold Regions Science and Technology, 2019, 166, 102822.	1.6	6
29	Coring of Antarctic Subglacial Sediments. Journal of Marine Science and Engineering, 2019, 7, 194.	1.2	13
30	Test-Bed Performance of an Ice-Coring Drill Used with a Hot Water Drilling System. Journal of Marine Science and Engineering, 2019, 7, 234.	1.2	3
31	Air reverse circulation at the hole bottom in ice-core drilling. Journal of Glaciology, 2019, 65, 149-156.	1.1	5
32	Thermal tips for ice hot-point drilling: Experiments and preliminary thermal modeling. Cold Regions Science and Technology, 2019, 160, 97-109.	1.6	16
33	Design and Experiment of Clamper Used in Antarctic Subglacial Bedrock Drilling. Journal of Marine Science and Engineering, 2019, 7, 153.	1.2	3
34	Design Parameters of Hot-Water Drilling Systems. Water (Switzerland), 2019, 11, 289.	1.2	4
35	Hydraulic fracturing in ice boreholes: Theory and tests. Polar Science, 2019, 19, 40-48.	0.5	7
36	Ice drill testing facility. Cold Regions Science and Technology, 2018, 145, 151-159.	1.6	10

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37	Drilling project at Gamburtsev Subglacial Mountains, East Antarctica: recent progress and plans for the future. Geological Society Special Publication, 2018, 461, 145-159.	0.8	4
38	Electric thermal drills for open-hole coring in ice. Polar Science, 2018, 17, 13-22.	0.5	4
39	Shallow hot-water ice drill: Estimation of drilling parameters and testing. Cold Regions Science and Technology, 2018, 155, 11-19.	1.6	8
40	Geological drilling in McMurdo Dry Valleys and McMurdo Sound, Antarctica: Historical development. Cold Regions Science and Technology, 2017, 141, 131-162.	1.6	19
41	Rapid ice drilling with continual air transport of cuttings and cores: General concept. Polar Science, 2017, 14, 21-29.	0.5	15
42	Assessing the efficiency of carbide drill bits and factors influencing their application to debris-rich subglacial ice. Polar Science, 2017, 13, 50-55.	0.5	3
43	Drilling Challenges and Perspectives for Future Development. , 2016, , 259-279.		0
44	Small-diameter vibrocorer for sediment coring beneath Antarctic ice shelves: General concept and testing. Ocean Engineering, 2016, 126, 232-239.	1.9	2
45	Circulation system of an Antarctic electromechanical bedrock drill. Polar Science, 2016, 10, 463-469.	0.5	1
46	Chapter 10 Drilling and Breaking Ice. , 2016, , 271-348.		2
47	Physicochemical properties of potential low-temperature drilling fluids for deep ice core drilling. Cold Regions Science and Technology, 2016, 129, 45-50.	1.6	5
48	Mechanical Ice Drilling Technology. , 2016, , .		23
49	Cable-Suspended Electromechanical Auger Drills. , 2016, , 109-178.		0
50	Introduction to Ice Drilling Technology. , 2016, , 1-8.		3
51	Cable-Suspended Electromechanical Drills with Bottom-Hole Circulation. , 2016, , 179-258.		0
52	Experimental investigation of cutting temperature in ice drilling. Cold Regions Science and Technology, 2015, 116, 78-85.	1.6	7
53	Comparison and analysis of subglacial bedrock core drilling technology in Polar Regions. Polar Science, 2015, 9, 208-220.	0.5	5
54	Ice-core drilling problems and solutions. Cold Regions Science and Technology, 2015, 120, 1-20.	1.6	20

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55	Experimental study of the drilling process in debris-rich ice. Cold Regions Science and Technology, 2015, 120, 138-144.	1.6	13
56	Size distribution and shape characteristics of ice cuttings produced by an electromechanical auger drill. Cold Regions Science and Technology, 2015, 119, 204-210.	1.6	4
57	INTERPRETATIONS OF COMPLICATED FOLDED STRUCTURES AT THE LOWER PARTS OF ANTARCTIC AND GREENLAND ICE SHEETS. Geography, Environment, Sustainability, 2015, 8, 4-15.	0.6	1
58	Application of Fiber Bragg Gratings in the Measurements of Acoustic Properties of Ice. Guangxue Xuebao/Acta Optica Sinica, 2015, 35, 1106001.	0.2	0
59	Thermobaric Conditions at Ice-Water Interface in Subglacial Lake Vostok, East Antarctica. Natural Resources, 2015, 06, 423-432.	0.2	0
60	Assessment of thermobaric state and change of the mass balance in the subglacial Lake Vostok after drilling-in. Led i Sneg, 2015, 125, 20.	0.1	0
61	Chinese First Deep Ice-Core Drilling Project DK-1 at Dome A, Antarctica (2011-2013): progress and performance. Annals of Glaciology, 2014, 55, 88-98.	2.8	17
62	Drill heads of the deep ice electromechanical drills. Cold Regions Science and Technology, 2014, 97, 41-56.	1.6	15
63	Drilling fluid technology in ice sheets: Hydrostatic pressure and borehole closure considerations. Cold Regions Science and Technology, 2014, 98, 47-54.	1.6	28
64	Environmental considerations of low-temperature drilling fluids. Annals of Glaciology, 2014, 55, 31-40.	2.8	24
65	Low-molecular-weight, fatty-acid esters as potential low-temperature drilling fluids for ice coring. Annals of Glaciology, 2014, 55, 39-43.	2.8	16
66	Perspectives for development of ice-core drilling technology: a discussion. Annals of Glaciology, 2014, 55, 339-350.	2.8	22
67	Anti-torque systems of electromechanical cable-suspended drills and test results. Annals of Glaciology, 2014, 55, 207-218.	2.8	10
68	DEM modeling of ice cuttings transportation by electromechanical auger core drills. Annals of Glaciology, 2014, 55, 65-71.	2.8	9
69	Low-load diamond drill bits for subglacial bedrock sampling. Annals of Glaciology, 2014, 55, 124-130.	2.8	10
70	Recoverable autonomous sonde (RECAS) for environmental exploration of Antarctic subglacial lakes: general concept. Annals of Glaciology, 2014, 55, 23-30.	2.8	34
71	EXPLORATION OF GAMBURTSEV SUBGLACIAL MOUNTAINS (EAST ANTARCTICA): BACKGROUND AND PLANS FOR THE NEAR FUTURE. Geography, Environment, Sustainability, 2014, 7, 5-15.	0.6	2
72	Subglacial till and bedrock drilling. Cold Regions Science and Technology, 2013, 86, 142-166.	1.6	52

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73	NEW FRONTIERS OF ANTARCTIC SUBGLACIAL LAKES EXPLORATION. Geography, Environment, Sustainability, 2013, 6, 14-28.	0.6	3
74	Russian researchers reach subglacial Lake Vostok in Antarctica. Advances in Polar Science, 2012, 23, .	0.3	6
75	Closure of deep boreholes in ice sheets: a discussion. Annals of Glaciology, 2007, 47, 125-133.	2.8	13
76	Deep drilling at Vostok station, Antarctica: history and recent events. Annals of Glaciology, 2007, 47, 10-23.	2.8	36
77	Dimethyl siloxane oils as an alternative borehole fluid. Annals of Glaciology, 2007, 47, 82-88.	2.8	17
78	Drilling comparison in "warm ice"™ and drill design comparison. Annals of Glaciology, 2007, 47, 73-78.	2.8	22
79	The Hans Tausen drill: design, performance, further developments and some lessons learned. Annals of Glaciology, 2007, 47, 89-98.	2.8	43
80	Removal of cuttings in deep ice electromechanical drills. Cold Regions Science and Technology, 2006, 44, 87-98.	1.6	15
81	Power consumption of deep ice electromechanical drills. Cold Regions Science and Technology, 2003, 37, 69-79.	1.6	22
82	Core drilling by electromechanical drill. Polar Record, 1993, 29, 235-237.	0.4	2
83	Deep ice-core drilling to 800 m at Dome A in East Antarctica. Annals of Glaciology, 0, , 1-12.	2.8	3
84	Borehole multi-functional logger for geophysical high-precision monitoring in Antarctic and Greenland ice sheets and glaciers. Annals of Glaciology, 0, , 1-11.	2.8	0
85	Twenty Years of Drilling the Deepest Hole in Ice. Scientific Drilling, 0, 11, 41-45.	1.0	12