

Ilka Weikusat

List of Publications by Year in descending order

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Version: 2024-02-01

56
papers

3,157
citations

236612

25
h-index

168136

53
g-index

92
all docs

92
docs citations

92
times ranked

3330
citing authors

#	ARTICLE	IF	CITATIONS
1	One-to-one coupling of glacial climate variability in Greenland and Antarctica. <i>Nature</i> , 2006, 444, 195-198.	13.7	1,111
2	Eemian interglacial reconstructed from a Greenland folded ice core. <i>Nature</i> , 2013, 493, 489-494.	13.7	565
3	Characterization of an antifreeze protein from the polar diatom <i>Fragilariopsis cylindrus</i> and its relevance in sea ice. <i>Cryobiology</i> , 2011, 63, 210-219.	0.3	89
4	The microstructure of polar ice. Part II: State of the art. <i>Journal of Structural Geology</i> , 2014, 61, 21-49.	1.0	86
5	The microstructure of polar ice. Part I: Highlights from ice core research. <i>Journal of Structural Geology</i> , 2014, 61, 2-20.	1.0	78
6	Layer disturbances and the radio-echo free zone in ice sheets. <i>Cryosphere</i> , 2009, 3, 195-203.	1.5	68
7	Fabric along the NEEM ice core, Greenland, and its comparison with GRIP and NGRIP ice cores. <i>Cryosphere</i> , 2014, 8, 1129-1138.	1.5	67
8	Microstructure mapping: a new method for imaging deformation-induced microstructural features of ice on the grain scale. <i>Journal of Glaciology</i> , 2006, 52, 398-406.	1.1	60
9	Converging flow and anisotropy cause large-scale folding in Greenland's ice sheet. <i>Nature Communications</i> , 2016, 7, 11427.	5.8	56
10	Apparent boudinage in dykes. <i>Journal of Structural Geology</i> , 2004, 26, 625-636.	1.0	49
11	Evidence of dynamic recrystallization in polar firn. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	48
12	Subgrain boundaries and related microstructural features in EDML (Antarctica) deep ice core. <i>Journal of Glaciology</i> , 2009, 55, 461-472.	1.1	47
13	Physical analysis of an Antarctic ice core – towards an integration of micro- and macrodynamics of polar ice. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017, 375, 20150347.	1.6	44
14	Application of a continuum-mechanical model for the flow of anisotropic polar ice to the EDML core, Antarctica. <i>Journal of Glaciology</i> , 2008, 54, 631-642.	1.1	41
15	Seismic wave propagation in anisotropic ice – Part 2: Effects of crystal anisotropy in geophysical data. <i>Cryosphere</i> , 2015, 9, 385-398.	1.5	39
16	Full-field predictions of ice dynamic recrystallisation under simple shear conditions. <i>Earth and Planetary Science Letters</i> , 2016, 450, 233-242.	1.8	38
17	Dynamic recrystallisation of ice aggregates during co-axial viscoplastic deformation: a numerical approach. <i>Journal of Glaciology</i> , 2016, 62, 359-377.	1.1	36
18	Greenland Ice Sheet: Higher Nonlinearity of Ice Flow Significantly Reduces Estimated Basal Motion. <i>Geophysical Research Letters</i> , 2018, 45, 6542-6548.	1.5	35

#	ARTICLE	IF	CITATIONS
19	Cryogenic EBSD on ice: preserving a stable surface in a low pressure SEM. <i>Journal of Microscopy</i> , 2011, 242, 295-310.	0.8	34
20	Small-scale disturbances in the stratigraphy of the NEEM ice core: observations and numerical model simulations. <i>Cryosphere</i> , 2016, 10, 359-370.	1.5	34
21	Subgrain boundaries in Antarctic ice quantified by X-ray Laue diffraction. <i>Journal of Glaciology</i> , 2011, 57, 111-120.	1.1	33
22	Evolution of ice crystal microstructure during creep experiments. <i>Journal of Glaciology</i> , 2007, 53, 479-489.	1.1	32
23	Dynamic recrystallization during deformation of polycrystalline ice: insights from numerical simulations. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017, 375, 20150346.	1.6	31
24	Location and distribution of micro-inclusions in the EDML and NEEM ice cores using optical microscopy and in situ Raman spectroscopy. <i>Cryosphere</i> , 2017, 11, 1075-1090.	1.5	28
25	Potential mechanisms for anisotropy in ice-penetrating radar data. <i>Journal of Glaciology</i> , 2012, 58, 613-624.	1.1	27
26	Influence of ice crystal anisotropy on seismic velocity analysis. <i>Annals of Glaciology</i> , 2014, 55, 97-106.	2.8	27
27	Confocal Raman microscopy of frozen bread dough. <i>Journal of Cereal Science</i> , 2014, 60, 555-560.	1.8	26
28	Competition between grain growth and grain-size reduction in polar ice. <i>Journal of Glaciology</i> , 2011, 57, 942-948.	1.1	23
29	Strain localization and dynamic recrystallization in the ice-air aggregate: a numerical study. <i>Cryosphere</i> , 2016, 10, 3071-3089.	1.5	22
30	Impurity Analysis and Microstructure Along the Climatic Transition From MIS 6 Into 5e in the EDML Ice Core Using Cryo-Raman Microscopy. <i>Frontiers in Earth Science</i> , 2019, 7, .	0.8	18
31	Complete determination of ice crystal orientation using Laue X-ray diffraction method. <i>Journal of Glaciology</i> , 2011, 57, 103-110.	1.1	17
32	EBSD analysis of subgrain boundaries and dislocation slip systems in Antarctic and Greenland ice. <i>Solid Earth</i> , 2017, 8, 883-898.	1.2	17
33	Using a composite flow law to model deformation in the NEEM deep ice core, Greenland - Part 2: The role of grain size and premelting on ice deformation at high homologous temperature. <i>Cryosphere</i> , 2020, 14, 2449-2467.	1.5	17
34	The effect of dynamic recrystallisation on the rheology and microstructures of partially molten rocks. <i>Journal of Structural Geology</i> , 2019, 118, 224-235.	1.0	15
35	A stratigraphy-based method for reconstructing ice core orientation. <i>Annals of Glaciology</i> , 2021, 62, 191-202.	2.8	15
36	The Relevance of Grain Dissection for Grain Size Reduction in Polar Ice: Insights from Numerical Models and Ice Core Microstructure Analysis. <i>Frontiers in Earth Science</i> , 2017, 5, .	0.8	14

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55	142 Ice growth in the presence of an antifreeze protein. <i>Cryobiology</i> , 2013, 67, 438.	0.3	0
56	Photograph of the month. <i>Journal of Structural Geology</i> , 2014, 61, 143.	1.0	0