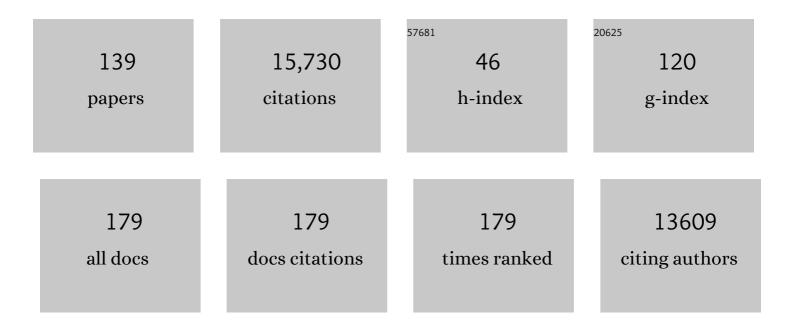
Raimund Muscheler

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Bomb-test ³⁶ Cl measurements in Vostok snow (Antarctica) and the use of ³⁶ Cl as a dating tool for deep ice cores. Tellus, Series B: Chemical and Physical Meteorology, 2022, 56, 492.	0.8	18
2	Cosmogenic radionuclides reveal an extreme solar particle storm near a solar minimum 9125 years BP. Nature Communications, 2022, 13, 214.	5.8	24
3	Toward Reconciling Radiocarbon Production Rates With Carbon Cycle Changes of the Last 55,000ÂYears. Paleoceanography and Paleoclimatology, 2022, 37, .	1.3	7
4	Tree-rings reveal two strong solar proton events in 7176 and 5259 BCE. Nature Communications, 2022, 13, 1196.	5.8	21
5	A multi-ice-core, annual-layer-counted Greenland ice-core chronology for the last 3800Âyears: GICC21. Climate of the Past, 2022, 18, 1125-1150.	1.3	8
6	Recurrent ancient geomagnetic field anomalies shed light on future evolution of the South Atlantic Anomaly. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	17
7	Solar and meteorological influences on seasonal atmospheric 7Be in Europe for 1975 to 2018. Chemosphere, 2021, 263, 128318.	4.2	11
8	A global environmental crisis 42,000 years ago. Science, 2021, 371, 811-818.	6.0	61
9	Solar Activity of the Past 100ÂYears Inferred From ¹⁰ Be in Ice Cores—Implications for Longâ€Term Solar Activity Reconstructions. Geophysical Research Letters, 2021, 48, e2020GL090896.	1.5	5
10	Geomagnetic dipole moment variations for the last glacial period inferred from cosmogenic radionuclides in Greenland ice cores via disentangling the climate and production signals. Quaternary Science Reviews, 2021, 258, 106881.	1.4	14
11	Major Differences in Regional Climate Impact Between High―and Low‣atitude Volcanic Eruptions. Geophysical Research Letters, 2021, 48, e2020GL092017.	1.5	5
12	A Single‥ear Cosmic Ray Event at 5410 BCE Registered in ¹⁴ C of Tree Rings. Geophysical Research Letters, 2021, 48, e2021GL093419.	1.5	25
13	The Signal of Solar Storms Embedded in Cosmogenic Radionuclides: Detectability and Uncertainties. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029351.	0.8	16
14	Muted multidecadal climate variability in central Europe during cold stadial periods. Nature Geoscience, 2021, 14, 651-658.	5.4	18
15	The Influence of Orbital Forcing on 10Be Deposition in Greenland Over the Glacial Period. Frontiers in Earth Science, 2021, 9, .	0.8	1
16	Eleven-year solar cycles over the last millennium revealed by radiocarbon in tree rings. Nature Geoscience, 2021, 14, 10-15.	5.4	97
17	BATCH PROCESSING OF TREE-RING SAMPLES FOR RADIOCARBON ANALYSIS. Radiocarbon, 2021, 63, 77-89.	0.8	6
18	Delayed Western Gotland Basin (Baltic Sea) ventilation in response to the onset of a Mid-Holocene climate oscillation. Quaternary Science Reviews, 2021, 273, 107253.	1.4	0

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19	Radiocarbon: A key tracer for studying Earth's dynamo, climate system, carbon cycle, and Sun. Science, 2021, 374, eabd7096.	6.0	33
20	The potential for a continuous 10Be record measured on ice chips from a borehole. Results in Geochemistry, 2021, 5, 100012.	0.3	6
21	Response to Comment on "A global environmental crisis 42,000 years agoâ€: Science, 2021, 374, eabi9756.	6.0	2
22	Response to Comment on "A global environmental crisis 42,000 years ago― Science, 2021, 374, eabh3655.	6.0	0
23	Modes of climate variability: Synthesis and review of proxy-based reconstructions through the Holocene. Earth-Science Reviews, 2020, 209, 103286.	4.0	41
24	Testing and Improving the IntCal20 Calibration Curve with Independent Records. Radiocarbon, 2020, 62, 1079-1094.	0.8	18
25	Lagged atmospheric circulation response in the Black Sea region to Greenland Interstadial 10. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 28649-28654.	3.3	4
26	The IntCal20 Northern Hemisphere Radiocarbon Age Calibration Curve (0–55 cal kBP). Radiocarbon, 2020, 62, 725-757.	0.8	3,502
27	Single-Year German oak and Californian Bristlecone Pine 14C Data at the Beginning of the Hallstatt Plateau from 856 BC to 626 BC. Radiocarbon, 2020, 62, 919-937.	0.8	12
28	Tipping elements and amplified polar warming during the Last Interglacial. Quaternary Science Reviews, 2020, 233, 106222.	1.4	20
29	Solar and climate signals revealed by seasonal 10Be data from the NEEM ice core project for the neutron monitor period. Earth and Planetary Science Letters, 2020, 541, 116273.	1.8	13
30	Solar Longitude Distribution of High-energy Proton Flares: Fluences and Spectra. Astrophysical Journal Letters, 2020, 900, L11.	3.0	15
31	Radionuclide wiggle matching reveals a nonsynchronous early Holocene climate oscillation in Greenland and western Europe around a grand solar minimum. Climate of the Past, 2020, 16, 1145-1157.	1.3	8
32	Bipolar volcanic synchronization of abrupt climate change in Greenland and Antarctic ice cores during the last glacial period. Climate of the Past, 2020, 16, 1565-1580.	1.3	44
33	Seasonal reconstructions coupling ice core data and an isotope-enabled climate model – methodological implications of seasonality, climate modes and selection of proxy data. Climate of the Past, 2020, 16, 1737-1758.	1.3	9
34	Plateaus and jumps in the atmospheric radiocarbon record – potential origin and value as global age markers for glacial-to-deglacial paleoceanography, a synthesis. Climate of the Past, 2020, 16, 2547-2571.	1.3	8
35	Development of a multi-method chronology spanning the Last Glacial Interval from Orakei maar lake, Auckland, New Zealand. Geochronology, 2020, 2, 367-410.	1.0	7
36	Late Holocene pathway of Asian Summer Monsoons imprinted in soils and societal implications. Quaternary Science Reviews, 2019, 215, 35-44.	1.4	8

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37	Multiradionuclide evidence for an extreme solar proton event around 2,610 B.P. (â^¼660 BC). Proceedings of the United States of America, 2019, 116, 5961-5966.	3.3	63
38	Use of 10Be isotope to predict landscape development in the source area of the Yellow River (SAYR), northeastern Qinghai-Tibet Plateau. Journal of Environmental Radioactivity, 2019, 203, 187-199.	0.9	6
39	A South Atlantic island record uncovers shifts in westerlies and hydroclimate during the last glacial. Climate of the Past, 2019, 15, 1939-1958.	1.3	Ο
40	Greenland records of aerosol source and atmospheric lifetime changes from the Eemian to the Holocene. Nature Communications, 2018, 9, 1476.	5.8	74
41	Climate information preserved in seasonal water isotope at NEEM: relationships with temperature, circulation and sea ice. Climate of the Past, 2018, 14, 1067-1078.	1.3	11
42	Synchronizing ¹⁰ Be in two varved lake sediment records to IntCal13 ¹⁴ C during three grand solar minima. Climate of the Past, 2018, 14, 687-696.	1.3	18
43	Connecting the Greenland ice-core and Uâ^•Th timescales via cosmogenic radionuclides: testing the synchroneity of Dansgaard–Oeschger events. Climate of the Past, 2018, 14, 1755-1781.	1.3	62
44	Solar and volcanic forcing of North Atlantic climate inferred from a process-based reconstruction. Climate of the Past, 2018, 14, 1179-1194.	1.3	31
45	Relative paleointensity (RPI) in the latest Pleistocene (10–45 ka) and implications for deglacial atmospheric radiocarbon. Quaternary Science Reviews, 2018, 191, 57-72.	1.4	27
46	Bulk sediment ¹⁴ C dating in an estuarine environment: How accurate can it be?. Paleoceanography, 2017, 32, 123-131.	3.0	15
47	The new local interstellar spectra and their influence on the production rates of the cosmogenic radionuclides ¹⁰ Be and ¹⁴ C. Journal of Geophysical Research: Space Physics, 2017, 122, 23-34.	0.8	47
48	Volcanic influence on centennial to millennial Holocene Greenland temperature change. Scientific Reports, 2017, 7, 1441.	1.6	120
49	No Coincident Nitrate Enhancement Events in Polar Ice Cores Following the Largest Known Solar Storms. Journal of Geophysical Research D: Atmospheres, 2017, 122, 11,900.	1.2	14
50	Rapid global ocean-atmosphere response to Southern Ocean freshening during the last glacial. Nature Communications, 2017, 8, 520.	5.8	15
51	Radiocarbon calibration uncertainties during the last deglaciation: Insights from new floating tree-ring chronologies. Quaternary Science Reviews, 2017, 170, 98-108.	1.4	47
52	The PMIP4 contribution to CMIP6 – Part 3: The last millennium, scientific objective, and experimental design for the PMIP4 <i>past1000</i> simulations. Geoscientific Model Development, 2017, 10, 4005-4033.	1.3	155
53	The WAIS Divide deep ice core WD2014 chronology – Part 2: Annual-layer counting (0–31â€ ⁻ kaâ€ ⁻ BP). Clim of the Past, 2016, 12, 769-786.	ate 1.3	137
54	Solar modulation of flood frequency in central Europe during spring and summer on interannual to multi-centennial timescales. Climate of the Past, 2016, 12, 799-805.	1.3	28

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55	Synchronizing the Greenland ice core and radiocarbon timescales over the Holocene $\hat{a} \in Bayesian$ wiggle-matching of cosmogenic radionuclide records. Climate of the Past, 2016, 12, 15-30.	1.3	68
56	The influence of external forcing on subdecadal variability of regional surface temperature in CMIP5 simulations of the last millennium. Journal of Geophysical Research D: Atmospheres, 2016, 121, 1671-1682.	1.2	7
57	High-precision dating and correlation of ice, marine and terrestrial sequences spanning Heinrich Event 3: Testing mechanisms of interhemispheric change using New Zealand ancient kauri (Agathis) Tj ETQq1	1 0.7 84 314	rg B B/Overloc
58	Diatom blooms and associated vegetation shifts in a subarctic peatland: responses to distant volcanic eruptions?. Journal of Quaternary Science, 2016, 31, 723-730.	1.1	2
59	The Revised Sunspot Record in Comparison to Cosmogenic Radionuclide-Based Solar Activity Reconstructions. Solar Physics, 2016, 291, 3025-3043.	1.0	68
60	A varved lake sediment record of the 10Be solar activity proxy for the Lateglacial-Holocene transition. Quaternary Science Reviews, 2016, 153, 31-39.	1.4	13
61	Changes in El Niño – Southern Oscillation (ENSO) conditions during the Greenland Stadial 1 (GS-1) chronozone revealed by New Zealand tree-rings. Quaternary Science Reviews, 2016, 153, 139-155.	1.4	6
62	Periodicities in mid- to late-Holocene peatland hydrology identified from Swedish and Lithuanian tree-ring data. Quaternary Science Reviews, 2016, 137, 200-208.	1.4	8
63	Solar forcing as an important trigger for West Greenland sea-ice variability over the last millennium. Quaternary Science Reviews, 2016, 131, 148-156.	1.4	32
64	Solar cycles and depositional processes in annual 10 Be from two varved lake sediment records. Earth and Planetary Science Letters, 2015, 428, 44-51.	1.8	24
65	A shift towards wetter and windier conditions in southern Sweden around the prominent solar minimum 2750 cal a BP. Journal of Quaternary Science, 2015, 30, 235-244.	1.1	14
66	Solar forcing of Holocene summer sea-surface temperatures in the northern North Atlantic. Geology, 2015, 43, 203-206.	2.0	80
67	Post-depositional remanent magnetization lock-in depth in precisely dated varved sediments assessed by archaeomagnetic field models. Earth and Planetary Science Letters, 2015, 410, 186-196.	1.8	22
68	Timing and climate forcing of volcanic eruptions for the past 2,500 years. Nature, 2015, 523, 543-549.	13.7	824
69	Multiradionuclide evidence for the solar origin of the cosmic-ray events of AD 774/5 and 993/4. Nature Communications, 2015, 6, 8611.	5.8	188
70	Assessing the differences between the IntCal and Greenland ice-core time scales for the last 14,000 years via the common cosmogenic radionuclide variations. Quaternary Science Reviews, 2014, 106, 81-87.	1.4	52
71	Challenges in 14C dating towards the limit of the method inferred from anchoring a floating tree ring radiocarbon chronology to ice core records around the Laschamp geomagnetic field minimum. Earth and Planetary Science Letters, 2014, 394, 209-215.	1.8	28
72	Persistent link between solar activity and Greenland climate during the Last GlacialÂMaximum. Nature Geoscience, 2014, 7, 662-666.	5.4	80

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73	A deglacial palaeomagnetic master curve for Fennoscandia – Providing a dating template and supporting millennial-scale geomagnetic field patterns for the past 14Âka. Quaternary Science Reviews, 2014, 106, 155-166.	1.4	10
74	Integrating timescales with time-transfer functions: a practical approach for an INTIMATE database. Quaternary Science Reviews, 2014, 106, 67-80.	1.4	20
75	10Be climate fingerprints during the Eemian in the NEEM ice core, Greenland. Scientific Reports, 2014, 4, 6408.	1.6	15
76	Phase of solar activity affects response of solar proxy 10Be. Earth and Planetary Science Letters, 2013, 380, 72-76.	1.8	2
77	An estimate of post-depositional remanent magnetization lock-in depth in organic rich varved lake sediments. Global and Planetary Change, 2013, 110, 264-277.	1.6	19
78	Solar influence on climate variability and human development during the Neolithic: evidence from a high-resolution multi-proxy record from Templevanny Lough, County Sligo, Ireland. Quaternary Science Reviews, 2013, 67, 138-159.	1.4	16
79	Eemian interglacial reconstructed from a Greenland folded ice core. Nature, 2013, 493, 489-494.	13.7	565
80	Solar forcing of climate during the last millennium recorded in lake sediments from northern Sweden. Holocene, 2013, 23, 447-452.	0.9	14
81	Radiocarbon Wiggle-Match Dating of Bulk Sediments—How Accurate can It Be?. Radiocarbon, 2013, 55, 1173-1186.	0.8	11
82	Intercomparison of ¹⁴ C Dating of Wood Samples at Lund University and ETH-Zurich AMS Facilities: Extraction, Graphitization, and Measurement. Radiocarbon, 2013, 55, 391-400.	0.8	13
83	ICE CORE METHODS 10Be and Cosmogenic Radionuclides in Ice Cores. , 2013, , 353-360.		1
84	Radiocarbon Wiggle-Match Dating of Bulk Sediments—How Accurate Can It Be?. Radiocarbon, 2013, 55, .	0.8	5
85	Intercomparison of Radiocarbon Dating of Wood Samples at Lund University and ETH Zurich AMS Facilities: Extraction, Graphitization, and Measurement. Radiocarbon, 2013, 55, .	0.8	2
86	Climate forcing reconstructions for use in PMIP simulations of the Last Millennium (v1.1). Geoscientific Model Development, 2012, 5, 185-191.	1.3	238
87	Centennial to millennial geomagnetic field variations. Journal of Space Weather and Space Climate, 2012, 2, A08.	1.1	9
88	The enigmatic 1,500-year cycle. Nature Geoscience, 2012, 5, 850-851.	5.4	1
89	Using an independent geochronology based on palaeomagnetic secular variation (PSV) and atmospheric Pb deposition to date Baltic Sea sediments and infer 14C reservoir age. Quaternary Science Reviews, 2012, 42, 43-58.	1.4	48
90	Regional atmospheric circulation shifts induced by a grand solar minimum. Nature Geoscience, 2012, 5, 397-401.	5.4	233

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91	Multi-proxy identification of the Laschamp geomagnetic field excursion in Lake Pupuke, New Zealand. Earth and Planetary Science Letters, 2011, 311, 155-164.	1.8	30
92	Millennial scale cyclicity in the geodynamo inferred from a dipole tilt reconstruction. Earth and Planetary Science Letters, 2011, 311, 299-305.	1.8	29
93	Climate forcing reconstructions for use in PMIP simulations of the last millennium (v1.0). Geoscientific Model Development, 2011, 4, 33-45.	1.3	349
94	Assessing the reliability of Holocene relative palaeointensity estimates: a case study from Swedish varved lake sediments. Geophysical Journal International, 2011, 187, 1195-1214.	1.0	12
95	Constraints on long-term changes in solar activity from the range of variability of cosmogenic radionuclide records. Astrophysics and Space Sciences Transactions, 2011, 7, 355-364.	1.0	15
96	Dynamical Response of the Tropical Pacific Ocean to Solar Forcing During the Early Holocene. Science, 2010, 330, 1378-1381.	6.0	135
97	Radiocarbon wiggle matching of Swedish lake varves reveals asynchronous climate changes around the 8.2 kyr cold event. Boreas, 2010, 39, 720-733.	1.2	26
98	Holocene geocentric dipole tilt model constrained by sedimentary paleomagnetic data. Geochemistry, Geophysics, Geosystems, 2010, 11, .	1.0	34
99	Response of Norwegian Sea temperature to solar forcing since 1000 A.D Journal of Geophysical Research, 2010, 115, .	3.3	40
100	Comment on "Magnetic effect on CO ₂ solubility in seawater: A possible link between geomagnetic field variations and climate―by Alexander Pazur and Michael Winklhofer. Geophysical Research Letters, 2009, 36, .	1.5	4
101	Taking the pulse of the Sun during the Holocene by joint analysis of ¹⁴ C and ¹⁰ Be. Geophysical Research Letters, 2009, 36, .	1.5	62
102	Tree rings and ice cores reveal 14C calibration uncertainties during the YoungerÂDryas. Nature Geoscience, 2008, 1, 263-267.	5.4	185
103	Variations in the geomagnetic dipole moment during the Holocene and the past 50Âkyr. Earth and Planetary Science Letters, 2008, 272, 319-329.	1.8	114
104	A 60 000 year Greenland stratigraphic ice core chronology. Climate of the Past, 2008, 4, 47-57.	1.3	910
105	Solar activity during the last 1000yr inferred from radionuclide records. Quaternary Science Reviews, 2007, 26, 82-97.	1.4	284
106	Variable 10Be fluxes in lacustrine sediments from Tristan da Cunha, South Atlantic: a solar record?. Quaternary Science Reviews, 2007, 26, 829-835.	1.4	14
107	Reply to the comment by Bard et al. on "Solar activity during the last 1000yr inferred from radionuclide records― Quaternary Science Reviews, 2007, 26, 2304-2308.	1.4	3
108	Climate forced atmospheric CO2 variability in the early Holocene: A stomatal frequency reconstruction. Global and Planetary Change, 2007, 57, 247-260.	1.6	16

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109	Palaeomagnetic intensity data: an Achilles heel of solar activity reconstructions. Holocene, 2007, 17, 851-859.	0.9	62
110	Ancient Biomolecules from Deep Ice Cores Reveal a Forested Southern Greenland. Science, 2007, 317, 111-114.	6.0	393
111	Solar Variability Over the Past Several Millennia. Space Science Reviews, 2007, 125, 67-79.	3.7	48
112	A model-based interpretation of low-frequency changes in the carbon cycle during the last 120,000 years and its implications for the reconstruction of atmospheric Δ14C. Geochemistry, Geophysics, Geosystems, 2006, 7, n/a-n/a.	1.0	51
113	Large variations in Holocene solar activity: Constraints from10Be in the Greenland Ice Core Project ice core. Journal of Geophysical Research, 2006, 111, .	3.3	229
114	Solar forced Dansgaard/Oeschger events?. Geophysical Research Letters, 2006, 33, .	1.5	20
115	The Greenland Ice Core Chronology 2005, 15–42ka. Part 2: comparison to other records. Quaternary Science Reviews, 2006, 25, 3258-3267.	1.4	345
116	Coupled climate model simulation of Holocene cooling events: oceanic feedback amplifies solar forcing. Climate of the Past, 2006, 2, 79-90.	1.3	104
117	Long-term solar activity explored with wavelet methods. Annales Geophysicae, 2006, 24, 769-778.	0.6	17
118	Solar Variability Over the Past Several Millennia. , 2006, , 67-79.		1
119	How unusual is today's solar activity?. Nature, 2005, 436, E3-E4.	13.7	58
120	Geomagnetic field intensity during the last 60,000 years based on 10Be and 36Cl from the Summit ice cores and 14C. Quaternary Science Reviews, 2005, 24, 1849-1860.	1.4	233
121	Bomb-test 36Cl measurements in Vostok snow (Antarctica) and the use of 36Cl as a dating tool for deep ice cores. Tellus, Series B: Chemical and Physical Meteorology, 2004, 56, 492-498.	0.8	28
122	Co-precipitated silver–metal oxide aggregates for accelerator mass spectrometry of 10Be and 26Al. Nuclear Instruments & Methods in Physics Research B, 2004, 223-224, 272-277.	0.6	23
123	The Preboreal climate reversal and a subsequent solar-forced climate shift. Journal of Quaternary Science, 2004, 19, 263-269.	1.1	87
124	Causes and timing of the 8200yr BP event inferred from the comparison of the GRIP 10Be and the tree ring Δ14C record. Quaternary Science Reviews, 2004, 23, 2101-2111.	1.4	59
125	Changes in the carbon cycle during the last deglaciation as indicated by the comparison of 10Be and 14C records. Earth and Planetary Science Letters, 2004, 219, 325-340.	1.8	188
126	Long-term solar variability and climate change based on radionuclide data from ice cores. Geophysical Monograph Series, 2004, , 221-235.	0.1	26

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127	Geomagnetic field intensity, North Atlantic Deep Water circulation and atmospheric Δ14C during the last 50 kyr. Earth and Planetary Science Letters, 2002, 200, 177-190.	1.8	97
128	Geomagnetic intensity and inclination variations at Hawaii for the past 98kyr from core SOH-4 (Big) Tj ETQq0 0 0 Planetary Interiors, 2002, 129, 205-243.	rgBT /Ove 0.7	erlock 10 Tf 5 61
129	Cosmogenic nuclides during Isotope Stages 2 and 3. Quaternary Science Reviews, 2002, 21, 1129-1139.	1.4	68
130	Presence of the Solar de Vries Cycle (â^1⁄4205 years) during the Last Ice Age. Geophysical Research Letters, 2001, 28, 303-306.	1.5	165
131	Some results relevant to the discussion of a possible link between cosmic rays and the Earth's climate. Journal of Geophysical Research, 2001, 106, 3381-3387.	3.3	48
132	Persistent Solar Influence on North Atlantic Climate During the Holocene. Science, 2001, 294, 2130-2136.	6.0	2,757
133	Atmospheric radiocarbon during the Younger Dryas: production, ventilation, or both?. Earth and Planetary Science Letters, 2001, 185, 383-395.	1.8	38
134	Reconstruction of the paleoaccumulation rate of central Greenland during the last 75 kyr using the cosmogenic radionuclides 36Cl and 10Be and geomagnetic field intensity data. Earth and Planetary Science Letters, 2001, 193, 515-521.	1.8	46
135	High-resolution analyses of an early Holocene climate event may imply decreased solar forcing as an important climate trigger. Geology, 2001, 29, 1107.	2.0	173
136	Changes in deep-water formation during the Younger Dryas event inferred from 10Be and 14C records. Nature, 2000, 408, 567-570.	13.7	112
137	Chlorine-36 evidence for the Mono Lake event in the Summit GRIP ice core. Earth and Planetary Science Letters, 2000, 181, 1-6.	1.8	147
138	ENVIRONMENTAL LEVELS OF RADIOCARBON IN LUND, SWEDEN, PRIOR TO THE START OF THE EUROPEAN SPALLATION SOURCE. Radiocarbon, 0, , 1-17.	0.8	0
139	Solar and Volcanic Forcing of Decadal- to Millennial-scale Climatic Variations. , 0, , 444-470.		0