

# Nelia W Dunbar

## List of Publications by Year in descending order

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Version: 2024-02-01

63  
papers

3,274  
citations

126907

33  
h-index

155660

55  
g-index

63  
all docs

63  
docs citations

63  
times ranked

3613  
citing authors

#	ARTICLE	IF	CITATIONS
1	Obliquity-paced Pliocene West Antarctic ice sheet oscillations. <i>Nature</i> , 2009, 458, 322-328.	27.8	564
2	The WAIS Divide deep ice core WD2014 chronology – Part 2: Annual-layer counting (0–31 ka BP). <i>Climate of the Past</i> , 2016, 12, 769-786.	3.4	137
3	Mantle to surface degassing of alkalic magmas at Erebus volcano, Antarctica. <i>Earth and Planetary Science Letters</i> , 2011, 306, 261-271.	4.4	116
4	Turmoil at Turrialba Volcano (Costa Rica): Degassing and eruptive processes inferred from high-frequency gas monitoring. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 5761-5775.	3.4	105
5	<sup>40</sup> Ar/ <sup>39</sup> Ar geochronology of magmatic activity, magma flux and hazards at Ruapehu volcano, Taupo Volcanic Zone, New Zealand. <i>Journal of Volcanology and Geothermal Research</i> , 2003, 120, 271-287.	2.1	102
6	Pre-eruptive water content of rhyolitic magmas as determined by ion microprobe analyses of melt inclusions in phenocrysts. <i>Journal of Volcanology and Geothermal Research</i> , 1989, 36, 293-302.	2.1	99
7	Determination of pre-eruptive H <sub>2</sub> O, F and Cl contents of silicic magmas using melt inclusions: Examples from Taupo volcanic center, New Zealand. <i>Bulletin of Volcanology</i> , 1989, 51, 177-184.	3.0	97
8	Climate forcing by iron fertilization from repeated ignimbrite eruptions: The icehouse–silicic large igneous province (SLIP) hypothesis. , 2009, 5, 315-324.		92
9	Dating the Siple Dome (Antarctica) ice core by manual and computer interpretation of annual layering. <i>Journal of Glaciology</i> , 2004, 50, 453-461.	2.2	90
10	Geochemistry and mineralogy of the phonolite lava lake, Erebus volcano, Antarctica: 1972–2004 and comparison with older lavas. <i>Journal of Volcanology and Geothermal Research</i> , 2008, 177, 589-605.	2.1	87
11	Petrogenesis and volatile stratigraphy of the Bishop Tuff: Evidence from melt inclusion analysis. <i>Journal of Geophysical Research</i> , 1992, 97, 15129-15150.	3.3	84
12	Cause of chemical zoning in the Bishop (California) and Bandelier (New Mexico) magma chambers. <i>Earth and Planetary Science Letters</i> , 1992, 111, 97-108.	4.4	84
13	Volatile and trace element composition of melt inclusions from the Lower Bandelier Tuff: Implications for magma chamber processes and eruptive style. <i>Journal of Geophysical Research</i> , 1992, 97, 15151-15170.	3.3	68
14	Evidence for limited zonation in silicic magma systems, Taupo Volcanic Zone, New Zealand. <i>Geology</i> , 1989, 17, 234.	4.4	67
15	Antarctic surface temperature and elevation during the Last Glacial Maximum. <i>Science</i> , 2021, 372, 1097-1101.	12.6	61
16	Physical setting and tephrochronology of the summit caldera ice record at Mount Moulton, West Antarctica. <i>Bulletin of the Geological Society of America</i> , 2008, 120, 796-812.	3.3	60
17	Tephra layers in the Siple Dome and Taylor Dome ice cores, Antarctica: Sources and correlations. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	59
18	New Zealand supereruption provides time marker for the Last Glacial Maximum in Antarctica. <i>Scientific Reports</i> , 2017, 7, 12238.	3.3	59

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19	The $^{40}\text{Ar}/^{39}\text{Ar}$ age constraints on the duration of resurgence at the Valles caldera, New Mexico. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	58
20	Synchronous volcanic eruptions and abrupt climate change $\sim 17.7$ ka plausibly linked by stratospheric ozone depletion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 10035-10040.	7.1	58
21	Tectonic controls on the hydrogeology of the Rio Grande Rift, New Mexico. <i>Water Resources Research</i> , 1999, 35, 2641-2659.	4.2	54
22	Tephrochronology of the Siple Dome ice core, West Antarctica: correlations and sources. <i>Quaternary Science Reviews</i> , 2011, 30, 1602-1614.	3.0	51
23	Advancements and best practices for analysis and correlation of tephra and cryptotephra in ice. <i>Quaternary Geochronology</i> , 2017, 40, 45-55.	1.4	49
24	The effects of K-metasomatism on the mineralogy and geochemistry of silicic ignimbrites near Socorro, New Mexico. <i>Chemical Geology</i> , 2000, 167, 285-312.	3.3	44
25	White Island volcano, New Zealand: carbon dioxide and sulfur dioxide emission rates and melt inclusion studies. <i>Chemical Geology</i> , 2001, 177, 187-200.	3.3	43
26	Co-occurrence of Acheulian and Oldowan artifacts with <i>Homo erectus</i> cranial fossils from Gona, Afar, Ethiopia. <i>Science Advances</i> , 2020, 6, eaaw4694.	10.3	43
27	Importance of volcanic glass alteration to sediment stabilization: offshore Japan. <i>Sedimentology</i> , 2011, 58, 1138-1154.	3.1	42
28	On the Time Scales of Magma Genesis, Melt Evolution, Crystal Growth Rates and Magma Degassing in the Erebus Volcano Magmatic System Using the $^{238}\text{U}$ , $^{235}\text{U}$ and $^{232}\text{Th}$ Decay Series. <i>Journal of Petrology</i> , 2013, 54, 235-271.	2.8	39
29	Meteoritic event recorded in Antarctic ice. <i>Geology</i> , 1998, 26, 607.	4.4	38
30	The SP19 chronology for the South Pole Ice Core $\delta^{18}\text{O}$ Part 1: volcanic matching and annual layer counting. <i>Climate of the Past</i> , 2019, 15, 1793-1808.	3.4	38
31	History of Quaternary volcanism and lava dams in western Grand Canyon based on lidar analysis, $^{40}\text{Ar}/^{39}\text{Ar}$ dating, and field studies: Implications for flow stratigraphy, timing of volcanic events, and lava dams. , 2008, 4, 183.		37
32	Englacial tephrostratigraphy of Erebus volcano, Antarctica. <i>Journal of Volcanology and Geothermal Research</i> , 2008, 177, 549-568.	2.1	36
33	Volatile contents of obsidian clasts in tephra from the Taupo Volcanic Zone, New Zealand: Implications to eruptive processes. <i>Journal of Volcanology and Geothermal Research</i> , 1992, 49, 127-145.	2.1	35
34	An FTIR study of hydrogen in anorthoclase and associated melt inclusions. <i>American Mineralogist</i> , 2006, 91, 12-20.	1.9	35
35	Megacrystals track magma convection between reservoir and surface. <i>Earth and Planetary Science Letters</i> , 2015, 413, 1-12.	4.4	35
36	Crystallization processes in an artificial magma: variations in crystal shape, growth rate and composition with melt cooling history. <i>Contributions To Mineralogy and Petrology</i> , 1995, 120, 412-425.	3.1	34

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37	Understanding melt generation beneath the slow-spreading Kolbeinsey Ridge using $^{238}\text{U}$ , $^{230}\text{Th}$ , and $^{231}\text{Pa}$ excesses. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 6300-6329.	3.9	33
38	Eruptive history and magmatic stability of Erebus volcano, Antarctica: Insights from glacial tephra. <i>Geochemistry, Geophysics, Geosystems</i> , 2014, 15, 4180-4202.	2.5	28
39	The last interglacial as represented in the glaciochemical record from Mount Moulton Blue Ice Area, West Antarctica. <i>Quaternary Science Reviews</i> , 2011, 30, 1940-1947.	3.0	27
40	Neogene tectonic and climatic evolution of the Western Ross Sea, Antarctica – Chronology of events from the AND-1B drill hole. <i>Global and Planetary Change</i> , 2012, 96-97, 189-203.	3.5	27
41	Ice motion and mass balance at the Allan Hills blue-ice area, Antarctica, with implications for paleoclimate reconstructions. <i>Journal of Glaciology</i> , 2012, 58, 399-406.	2.2	27
42	Rapid transport of ash and sulfate from the 2011 Puyehue-Cordón Caulle (Chile) eruption to West Antarctica. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 8908-8920.	3.3	24
43	Crystallization processes of anorthoclase phenocrysts in the Mount Erebus magmatic system: Evidence from crystal composition, crystal size distributions, and volatile contents of melt inclusions. <i>Antarctic Research Series</i> , 1994, , 129-146.	0.2	23
44	Eruption of reverse-zoned upper Tshirege Member, Bandelier Tuff from centralized vents within Valles caldera, New Mexico. <i>Journal of Volcanology and Geothermal Research</i> , 2014, 276, 82-104.	2.1	23
45	Late Miocene hominin teeth from the Gona Paleanthropological Research Project area, Afar, Ethiopia. <i>Journal of Human Evolution</i> , 2015, 81, 68-82.	2.6	22
46	The first physical evidence of subglacial volcanism under the West Antarctic Ice Sheet. <i>Scientific Reports</i> , 2017, 7, 11457.	3.3	21
47	Refinement of the late Quaternary geologic history of Erebus volcano, Antarctica using $^{40}\text{Ar}/^{39}\text{Ar}$ and $^{36}\text{Cl}$ age determinations. <i>Journal of Volcanology and Geothermal Research</i> , 2008, 177, 569-577.	2.1	20
48	Climate archives from 90 to 250 ka in horizontal and vertical ice cores from the Allan Hills Blue Ice Area, Antarctica. <i>Quaternary Research</i> , 2013, 80, 562-574.	1.7	20
49	Volcanic glass properties from 1459 C.E. volcanic event in South Pole ice core dismiss Kuwae caldera as a potential source. <i>Scientific Reports</i> , 2019, 9, 14437.	3.3	20
50	Recent volcanic accretion at $\sim 10^\circ\text{N}$ East Pacific Rise as resolved by combined geochemical and geological observations. <i>Geochemistry, Geophysics, Geosystems</i> , 2013, 14, 2547-2574.	2.5	19
51	Importance of Clay in Iron Transport and Sediment Reddening: Evidence from Reduction Features of the Abo Formation, New Mexico, U.S.A.. <i>Journal of Sedimentary Research</i> , 2005, 75, 562-571.	1.6	18
52	Impact of known local and tropical volcanic eruptions of the past millennium on the WAIS Divide microparticle record. <i>Geophysical Research Letters</i> , 2013, 40, 4712-4716.	4.0	18
53	Glaciovolcanic evidence for a polythermal Neogene East Antarctic Ice Sheet. <i>Geology</i> , 2014, 42, 39-41.	4.4	17
54	Alteration of volcanoclastic deposits at Minna Bluff: Geochemical insights on mineralizing environment and climate during the Late Miocene in Antarctica. <i>Geochemistry, Geophysics, Geosystems</i> , 2014, 15, 3258-3280.	2.5	14

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55	Dating firn cores by vertical strain measurements. <i>Journal of Glaciology</i> , 2002, 48, 401-406.	2.2	13
56	Solid inclusions of halite in quartz: evidence for the halite trend. <i>Chemical Geology</i> , 2001, 173, 179-191.	3.3	12
57	Chapter 7.4 Active volcanoes in Marie Byrd Land. <i>Geological Society Memoir</i> , 2021, 55, 759-783.	1.7	12
58	The geology of Gona, Afar, Ethiopia. , 2008, , .		10
59	Geologic and taphonomic context of El Bosque Petrificado Piedra Chamana (Cajamarca, Peru). <i>Bulletin of the Geological Society of America</i> , 2009, 121, 1172-1178.	3.3	10
60	Generation of rhyolitic melt in an artificial magma: Implications for fractional crystallization processes in natural magmas. <i>Journal of Volcanology and Geothermal Research</i> , 1993, 57, 157-166.	2.1	8
61	Crystallization processes in an artificial magma: variations in crystal shape, growth rate and composition with melt cooling history. <i>Contributions To Mineralogy and Petrology</i> , 1995, 120, 412-425.	3.1	4
62	Preliminary lithofacies assessment and $^{40}\text{Ar}/^{39}\text{Ar}$ ages of Cenozoic volcanic sequences in eastern Marie Byrd Land. <i>Antarctic Science</i> , 1993, 5, 105-106.	0.9	3
63	Late Oligocene–early Miocene landscape evolution of the Lake Mead region during the transition from Sevier contraction to Basin and Range extension. <i>Bulletin of the Geological Society of America</i> , 2015, , B31144.1.	3.3	1