Geoffrey A Abers

List of Publications by Year
in descending order

76 papers	8,347 citations	70961 41 h-index	76769 74 g-index
86 all docs	86 docs citations	86 times ranked	4968 citing authors

#	Article	IF	Citations
1	The global range of subduction zone thermal models. Physics of the Earth and Planetary Interiors, 2010, 183, 73-90.	0.7	1,375
2	Subduction factory 2. Are intermediate-depth earthquakes in subducting slabs linked to metamorphic dehydration reactions?. Journal of Geophysical Research, 2003, 108, .	3.3	761
3	Subduction factory 1. Theoretical mineralogy, densities, seismic wave speeds, and H2O contents. Journal of Geophysical Research, 2003, 108, .	3.3	714
4	Global compilation of variations in slab depth beneath arc volcanoes and implications. Geochemistry, Geophysics, Geosystems, 2006, 7, n/a-n/a.	1.0	476
5	Subduction Factory 3: An Excel worksheet and macro for calculating the densities, seismic wave speeds, and H2O contents of minerals and rocks at pressure and temperature. Geochemistry, Geophysics, Geosystems, 2004, 5, n/a-n/a.	1.0	246
6	Imaging the transition from Aleutian subduction to Yakutat collision in central Alaska, with local earthquakes and active source data. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	228
7	The thermal structure of subduction zones constrained by seismic imaging: Implications for slab dehydration and wedge flow. Earth and Planetary Science Letters, 2006, 241, 387-397.	1.8	210
8	Determination of surfaceâ€wave phase velocities across USArray from noise and Aki's spectral formulation. Geophysical Research Letters, 2009, 36, .	1.5	207
9	High resolution image of the subducted Pacific (?) plate beneath central Alaska, 50â€“150 km depth. Earth and Planetary Science Letters, 2003, 214, 575-588.	1.8	204
10	Seismic imaging of subduction zone metamorphism. Geology, 2008, 36, 275.	2.0	186
11	Seismic low-velocity layer at the top of subducting slabs: observations, predictions, and systematics. Physics of the Earth and Planetary Interiors, 2005, 149, 7-29.	0.7	177
12	Seismic attenuation and mantle wedge temperatures in the Alaska subduction zone. Journal of Geophysical Research, 2004, 109, .	3.3	152
13	Thermal structure of the Costa Rica â€“ Nicaragua subduction zone. Physics of the Earth and Planetary Interiors, 2005, 149, 187-200.	0.7	150
14	Crustal thickness variations across the Colorado Rocky Mountains from teleseismic receiver functions. Journal of Geophysical Research, 1995, 100, 20391-20404.	3.3	145
15	Thermalâ€“petrological controls on the location of earthquakes within subducting plates. Earth and Planetary Science Letters, 2013, 369-370, 178-187.	1.8	145
16	Link between plate fabric, hydration and subduction zone seismicity in Alaska. Nature Geoscience, 2015, 8, 961-964.	5.4	142
17	The cold and relatively dry nature of mantle forearcs in subduction zones. Nature Geoscience, 2017, 10, 333-337.	5.4	134
18	Deep structure of an arcâ€continent collision: Earthquake relocation and inversion for upper mantle P and S wave velocities beneath Papua New Guinea. Journal of Geophysical Research, 1991, 96, 6379-6401.	3.3	130

#	Article	IF	Citations
19	Shallow dips of normal faults during rapid extension: Earthquakes in the Woodlark-D'Entrecasteaux rift system, Papua New Guinea. Journal of Geophysical Research, 1997, 102, 15301-15317.	3.3	123
20	Possible seismogenic shallow-dipping normal faults in the Woodlark-D'Entrecasteaux extensional province, Papua New Guinea. Geology, 1991, 19, 1205.	2.0	119
21	A MATLAB toolbox and <scp>E</scp>xcel workbook for calculating the densities, seismic wave speeds, and major element composition of minerals and rocks at pressure and temperature. Geochemistry, Geophysics, Geosystems, 2016, 17, 616-624.	1.0	115
22	Imaging the source region of Cascadia tremor and intermediate-depth earthquakes. Geology, 2009, 37, 1119-1122.	2.0	112
23	Strong alongâ€arc variations in attenuation in the mantle wedge beneath Costa Rica and Nicaragua. Geochemistry, Geophysics, Geosystems, 2008, 9, .	1.0	91
24	Seismic tomography and earthquake locations in the Nicaraguan and Costa Rican upper mantle. Geochemistry, Geophysics, Geosystems, 2008, 9, .	1.0	90
25	Seismic anisotropy beneath the Shumagin Islands segment of the Aleutian-Alaska subduction zone. Journal of Geophysical Research, 1995, 100, 18165-18177.	3.3	88
26	Mafic Highâ€Pressure Rocks Are Preferentially Exhumed From Warm Subduction Settings. Geochemistry, Geophysics, Geosystems, 2018, 19, 2934-2961.	1.0	78
27	Mantle compensation of active metamorphic core complexes at Woodlark rift in Papua New Guinea. Nature, 2002, 418, 862-865.	13.7	76
28	Unusual mantle Poisson's ratio, subduction, and crustal structure in central Alaska. Journal of Geophysical Research, 2006, 111, .	3.3	73
29	Reconciling mantle attenuation-temperature relationships from seismology, petrology, and laboratory measurements. Geochemistry, Geophysics, Geosystems, 2014, 15, 3521-3542.	1.0	71
30	Phase velocities from seismic noise using beamforming and cross correlation in Costa Rica and Nicaragua. Geophysical Research Letters, 2008, 35, .	1.5	69
31	Tsunamigenic structures in a creeping section of the Alaska subduction zone. Nature Geoscience, 2017, 10, 609-613.	5.4	65
32	New geophysical insight into the origin of the Denali volcanic gap. Geophysical Journal International, 0, 182, 613-630.	1.0	63
33	Alaska Megathrust 2: Imaging the megathrust zone and Yakutat/Pacific plate interface in the Alaska subduction zone. Journal of Geophysical Research: Solid Earth, 2014, 119, 1924-1941.	1.4	59
34	Crustal thickness variation in south-central Alaska. Geology, 2006, 34, 781.	2.0	57
35	High seismic attenuation at a mid-ocean ridge reveals the distribution of deep melt. Science Advances, 2017, 3, e1602829.	4.7	55
36	Shear wave anisotropy beneath Nicaragua and Costa Rica: Implications for flow in the mantle wedge. Geochemistry, Geophysics, Geosystems, 2009, 10, .	1.0	52

#	Article	IF	Citations
37	Slab low-velocity layer in the eastern Aleutian subduction zone. Geophysical Journal International, 1997, 130, 640-648.	1.0	49
38	Imaging the Plate Interface in the Cascadia Seismogenic Zone: New Constraints from Offshore Receiver Functions. Seismological Research Letters, 2015, 86, 1261-1269.	0.8	49
39	Crustal structure along the Aleutian island arc: New insights from receiver functions constrained by activeâ€source data. Geochemistry, Geophysics, Geosystems, 2013, 14, 2977-2992.	1.0	47
40	Connections between subducted sediment, pore-fluid pressure, and earthquake behavior along the Alaska megathrust. Geology, 2018, 46, 299-302.	2.0	47
41	Seismic anisotropy under central Alaska from SKS splitting observations. Journal of Geophysical Research, 2010, 115, .	3.3	45
42	Physical state of Himalayan crust and uppermost mantle: Constraints from seismic attenuation and velocity tomography. Journal of Geophysical Research: Solid Earth, 2014, 119, 567-580.	1.4	43
43	Seismic evidence for a cold serpentinized mantle wedge beneath Mount St Helens. Nature Communications, 2016, 7, 13242.	5.8	42
44	The causes of spatiotemporal variations in erupted fluxes and compositions along a volcanic arc. Nature Communications, 2019, 10, 1350.	5.8	42
45	Shallow structure of the Cascadia subduction zone beneath western Washington from spectral ambient noise correlation. Journal of Geophysical Research, 2011, 116, .	3.3	41
46	Amphibious surface-wave phase-velocity measurements of the Cascadia subduction zone. Geophysical Journal International, 2019, 217, 1929-1948.	1.0	41
47	Crustal structure across the transition from rifting to spreading: the Woodlark rift system of Papua New Guinea. Geophysical Journal International, 2006, 166, 622-634.	1.0	40
48	Alaska megathrust 1: Seismicity 43â€‰years after the great 1964 Alaska megathrust earthquake. Journal of Geophysical Research: Solid Earth, 2013, 118, 4861-4871.	1.4	40
49	Subduction Factory 5: Unusually low Poisson's ratios in subduction zones from elastic anisotropy of peridotite. Journal of Geophysical Research, 2012, 117, .	3.3	35
50	Predicted velocity and density structure of the exhuming Papua New Guinea ultrahigh-pressure terrane. Journal of Geophysical Research, 2011, 116, .	3.3	33
51	Southeast Papuan crustal tectonics: Imaging extension and buoyancy of an active rift. Journal of Geophysical Research: Solid Earth, 2016, 121, 951-971.	1.4	33
52	Thermal Structure of the Forearc in Subduction Zones: A Comparison of Methodologies. Geochemistry, Geophysics, Geosystems, 2019, 20, 3268-3288.	1.0	33
53	Evidence for seismogenic normal faults at shallow dips in continental rifts. Geological Society Special Publication, 2001, 187, 305-318.	0.8	32
54	Imaging a steeply dipping subducting slab in Southern Central America. Earth and Planetary Science Letters, 2010, 296, 459-468.	1.8	31

#	Article	IF	Citations
55	Source scaling of earthquakes in the shumagin region, Alaska: time-domain inversions of regional waveforms. Geophysical Journal International, 1995, 123, 41-58.	1.0	30
56	Imaging continental breakup using teleseismic body waves: The <scp>W</scp>oodlark <scp>R</scp>ift, <scp>P</scp>apua <scp>N</scp>ew <scp>G</scp>uinea. Geochemistry, Geophysics, Geosystems, 2015, 16, 2529-2548.	1.0	30
57	Deep decoupling in subduction zones: Observations and temperature limits. , 2020, 16, 1408-1424.		30
58	The Alaska Amphibious Community Seismic Experiment. Seismological Research Letters, 2020, 91, 3054-3063.	0.8	28
59	Local Source <i>Vp</i> and <i>Vs</i> Tomography in the Mount St. Helens Region With the iMUSH Broadband Array. Geochemistry, Geophysics, Geosystems, 2020, 21, e2019GC008888.	1.0	26
60	Anisotropy beneath a highly extended continental rift. Geochemistry, Geophysics, Geosystems, 2014, 15, 545-564.	1.0	25
61	Imaging Subduction Beneath Mount St. Helens: Implications for Slab Dehydration and Magma Transport. Geophysical Research Letters, 2019, 46, 3163-3171.	1.5	24
62	3D Seismic Velocity Models for Alaska from Joint Tomographic Inversion of Body-Wave and Surface-Wave Data. Seismological Research Letters, 2020, 91, 3106-3119.	0.8	21
63	Enhanced Resolution of the Subducting Plate Interface in Central Alaska From Autocorrelation of Local Earthquake Coda. Journal of Geophysical Research: Solid Earth, 2019, 124, 1583-1600.	1.4	20
64	Subduction of an Oceanic Plateau Across Southcentral Alaska: Scatteredâ€Wave Imaging. Journal of Geophysical Research: Solid Earth, 2022, 127, .	1.4	20
65	Shear Velocity Structure From Ambient Noise and Teleseismic Surface Wave Tomography in the Cascades Around Mount St. Helens. Journal of Geophysical Research: Solid Earth, 2019, 124, 8358-8375.	1.4	16
66	Shear Wave Splitting and Mantle Flow Beneath Alaska. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB018329.	1.4	16
67	Insights into mantle structure and flow beneath Alaska based on a decade of observations of shear wave splitting. Journal of Geophysical Research: Solid Earth, 2014, 119, 8366-8377.	1.4	13
68	Magmatic arc structure around <scp>M</scp>ount <scp>R</scp>ainier, <scp>WA</scp>, from the joint inversion of receiver functions and surface wave dispersion. Geochemistry, Geophysics, Geosystems, 2015, 16, 178-194.	1.0	12
69	Firstâ€Order Mantle Subductionâ€Zone Structure Effects on Ground Motion: The 2016 MwÂ7.1 Iniskin and 2018 Mw 7.1 Anchorage Earthquakes. Seismological Research Letters, 2020, 91, 85-93.	0.8	11
70	A joint inversion for shear velocity and anisotropy: the Woodlark Rift, Papua New Guinea. Geophysical Journal International, 2016, 206, 807-824.	1.0	10
71	Teleseismic Attenuation, Temperature, and Melt of the Upper Mantle in the Alaska Subduction Zone. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB021653.	1.4	10
72	Subduction of an Oceanic Plateau Across Southcentral Alaska: Highâ€Resolution Seismicity. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB022809.	1.4	10

#	Article	IF	Citations
73	SKS Splitting Beneath Mount St. Helens: Constraints on Subslab Mantle Entrainment. Geochemistry, Geophysics, Geosystems, 2019, 20, 4202-4217.	1.0	9
74	Shallow Slow Earthquake Episodes Near the Trench Axis off Costa Rica. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB021706.	1.4	9
75	Anisotropy Variations in the Alaska Subduction Zone Based on Shearâ€Wave Splitting From Intraslab Earthquakes. Geochemistry, Geophysics, Geosystems, 2021, 22, e2020GC009558.	1.0	7
76	Pâ€•and Sâ€Wave Velocities of Exhumed Metasediments From the Alaskan Subduction Zone: Implications for the In Situ Conditions Along the Megathrust. Geophysical Research Letters, 2021, 48, e2021GL094511.	1.5	7