Peter Reiners

List of Publications by Year
in descending order

113 papers	10,351 citations	34105 52 h-index	32842 100 g-index
116 all docs	116 docs citations	116 times ranked	6026 citing authors

#	Article	IF	Citations
1	USING THERMOCHRONOLOGY TO UNDERSTAND OROGENIC EROSION. Annual Review of Earth and Planetary Sciences, 2006, 34, 419-466.	11.0	765
2	The pMELTS: A revision of MELTS for improved calculation of phase relations and major element partitioning related to partial melting of the mantle to 3 GPa. Geochemistry, Geophysics, Geosystems, 2002, 3, 1-35.	2.5	670
3	Zircon (U-Th)/He thermochronometry: He diffusion and comparisons with 40Ar/39Ar dating. Geochimica Et Cosmochimica Acta, 2004, 68, 1857-1887.	3.9	599
4	Helium diffusion in natural zircon: Radiation damage, anisotropy, and the interpretation of zircon (U-Th)/He thermochronology. Numerische Mathematik, 2013, 313, 145-198.	1.4	516
5	Late Cenozoic evolution of the eastern margin of the Tibetan Plateau: Inferences from40Ar/39Ar and (U-Th)/He thermochronology. Tectonics, 2002, 21, 1-1-1-20.	2.8	484
6	Zircon (U-Th)/He Thermochronometry. Reviews in Mineralogy and Geochemistry, 2005, 58, 151-179.	4.8	368
7	U-Th zonation-dependent alpha-ejection in (U-Th)/He chronometry. Geochimica Et Cosmochimica Acta, 2005, 69, 3349-3365.	3.9	329
8	Influence of crystal size on apatite (Uâ€“Th)/He thermochronology: an example from the Bighorn Mountains, Wyoming. Earth and Planetary Science Letters, 2001, 188, 413-420.	4.4	278
9	Coupled spatial variations in precipitation and long-term erosion rates across the Washington Cascades. Nature, 2003, 426, 645-647.	27.8	276
10	He diffusion and (Uâ€“Th)/He thermochronometry of zircon: initial results from Fish Canyon Tuff and Gold Butte. Tectonophysics, 2002, 349, 297-308.	2.2	271
11	Glaciation as a destructive and constructive control on mountain building. Nature, 2010, 467, 313-317.	27.8	219
12	Thermochronologic evidence for plateau formation in central Tibet by 45 Ma. Geology, 2012, 40, 187-190.	4.4	212
13	Incomplete retention of radiation damage in zircon from Sri Lanka. American Mineralogist, 2004, 89, 219-231.	1.9	193
14	Assimilation of felsic crust by basaltic magma: Thermal limits and extents of crustal contamination of mantle-derived magmas. Geology, 1995, 23, 563.	4.4	185
15	Past, Present, and Future of Thermochronology. Reviews in Mineralogy and Geochemistry, 2005, 58, 1-18.	4.8	182
16	Post-orogenic evolution of the Dabie Shan, eastern China, from (U-Th)/He and fission-track thermochronology. Numerische Mathematik, 2003, 303, 489-518.	1.4	170
17	Combined single-grain (U-Th)/He and U/Pb dating of detrital zircons from the Navajo Sandstone, Utah. Geology, 2003, 31, 761.	4.4	163
18	Helium diffusion and (Uâ€“Th)/He thermochronometry of titanite. Geochimica Et Cosmochimica Acta, 1999, 63, 3845-3859.	3.9	158

#	Article	IF	Citations
19	(U-Th)/(He-Pb) double dating of detrital zircons. Numerische Mathematik, 2005, 305, 259-311.	1.4	148
20	Uplift of the western margin of the Andean plateau revealed from canyon incision history, southern Peru. Geology, 2007, 35, 523.	4.4	142
21	Long-term glacial erosion of active mountain belts: Example of the Chugachâ€“St. Elias Range, Alaska. Geology, 2004, 32, 501.	4.4	138
22	Heâ€“Pb double dating of detrital zircons from the Ganges and Indus Rivers: Implication for quantifying sediment recycling and provenance studies. Earth and Planetary Science Letters, 2005, 237, 402-432.	4.4	135
23	Length scales of mantle heterogeneities and their relationship to ocean island basalt geochemistry. Geochimica Et Cosmochimica Acta, 2004, 68, 345-360.	3.9	125
24	Multiple episodes of fast exhumation since Cretaceous in southeast Tibet, revealed by low-temperature thermochronology. Earth and Planetary Science Letters, 2018, 490, 62-76.	4.4	118
25	Late Mesozoic and Cenozoic thermotectonic evolution along a transect from the north China craton through the Qinling orogen into the Yangtze craton, central China. Tectonics, 2006, 25, n/a-n/a.	2.8	101
26	New Insights into Crustal Contributions to Large-volume Rhyolite Generation in the Mid-Tertiary Sierra Madre Occidental Province, Mexico, Revealed by Uâ€“Pb Geochronology. Journal of Petrology, 2008, 49, 47-77.	2.8	101
27	Pulsed exhumation of interior eastern Tibet: Implications for relief generation mechanisms and the origin of high-elevation planation surfaces. Earth and Planetary Science Letters, 2016, 449, 176-185.	4.4	100
28	Eocene Tibetan plateau remnants preserved in the northwest Himalaya. Nature Geoscience, 2009, 2, 364-368.	12.9	98
29	Late Miocene exhumation and uplift of the Washington Cascade Range. Geology, 2002, 30, 767.	4.4	94
30	Effects of Uâ€“Th-rich grain boundary phases on apatite helium ages. Chemical Geology, 2014, 390, 135-151.	3.3	92
31	Shocked Quartz at the Triassic-Jurassic Boundary in Italy. Science, 1992, 255, 443-446.	12.6	86
32	Helium and argon thermochronometry of the Gold Butte block, south Virgin Mountains, Nevada. Earth and Planetary Science Letters, 2000, 178, 315-326.	4.4	85
33	Cenozoic exhumation of the northern Sierra Nevada, California, from (U-Th)/He thermochronology. Bulletin of the Geological Society of America, 2006, 118, 1481-1488.	3.3	83
34	Cenozoic Tectonic Evolution of the Basin and Range Province in Northwestern Nevada. Numerische Mathematik, 2006, 306, 616-654.	1.4	79
35	Laramide exhumation of the Bighorn Mountains, Wyoming: An apatite (U-Th)/He thermochronology study. Geology, 2002, 30, 27.	4.4	78
36	Variable exhumation rates and variable displacement rates: Documenting recent slowing of Himalayan shortening in western Bhutan. Earth and Planetary Science Letters, 2014, 386, 161-174.	4.4	75

#	Article	IF	Citations
37	Origin of the Blue Ridge escarpment along the passive margin of Eastern North America. Basin Research, 2004, 16, 41-63.	2.7	73
38	Interpreting dateâ€“eU correlations in zircon (U-Th)/He datasets: A case study from the Longmen Shan, China. Earth and Planetary Science Letters, 2014, 403, 328-339.	4.4	72
39	Temporal-compositional trends in intraplate basalt eruptions: Implications for mantle heterogeneity and melting processes. Geochemistry, Geophysics, Geosystems, 2002, 3, 1-30.	2.5	71
40	Multimillion year thermal history of a porphyry copper deposit: application of Uâ€“Pb, 40Ar/39Ar and (Uâ€“Th)/He chronometers, Bajo de la Alumbrera copperâ€“gold deposit, Argentina. Mineralium Deposita, 2008, 43, 295-314.	4.1	71
41	The contribution of glacial erosion to shaping the hidden landscape of East Antarctica. Nature Geoscience, 2013, 6, 203-207.	12.9	70
42	Geometric analysis of radiation damage connectivity in zircon, and its implications for helium diffusion. American Mineralogist, 2013, 98, 350-360.	1.9	69
43	Thermochronology and landscape evolution. Physics Today, 2009, 62, 31-36.	0.3	68
44	Annealing kinetics of radiation damage in zircon. Geochimica Et Cosmochimica Acta, 2019, 249, 225-246.	3.9	67
45	Topographic relief driven by variations in surface rock density. Nature Geoscience, 2014, 7, 534-540.	12.9	66
46	Young basalts of the central Washington Cascades, flux melting of the mantle, and trace element signatures of primary arc magmas. Contributions To Mineralogy and Petrology, 2000, 138, 249-264.	3.1	64
47	Temporalâ€“compositional trends over short and long time-scales in basalts of the Big Pine Volcanic Field, California. Earth and Planetary Science Letters, 2008, 269, 140-154.	4.4	59
48	Influence of wildfires on apatite and zircon (U-Th)/He ages. Geology, 2003, 31, 1025.	4.4	58
49	Eocene arc-continent collision and crustal consolidation in Kamchatka, Russian Far East. Numerische Mathematik, 2009, 309, 333-396.	1.4	57
50	An Apparatus for High-Precision Helium Diffusion Measurements from Minerals. Analytical Chemistry, 1999, 71, 2059-2061.	6.5	55
51	Long-term tectonothermal history of Laramide basement from zirconâ€“He age-eU correlations. Earth and Planetary Science Letters, 2016, 453, 119-130.	4.4	55
52	Reactive Melt Transport in the Mantle and Geochemical Signatures of Mantle-derived Magmas. Journal of Petrology, 1998, 39, 1039-1061.	2.8	54
53	Nonmonotonic thermal histories and contrasting kinetics of multiple thermochronometers. Geochimica Et Cosmochimica Acta, 2009, 73, 3612-3629.	3.9	50
54	Zircon, titanite, and apatite (Uâ€Th)/He ages and ageâ€eU correlations from the Fennoscandian Shield, southern Sweden. Tectonics, 2017, 36, 1254-1274.	2.8	50

#	Article	IF	Citations
55	Jurassic-to-present thermal history of the central High Atlas (Morocco) assessed by low-temperature thermochronology. Terra Nova, 2007, 19, 58-64.	2.1	49
56	Linking hematite (U-Th)/He dating with the microtextural record of seismicity in the Wasatch fault damage zone, Utah, USA. Geology, 2015, 43, 771-774.	4.4	48
57	Low-temperature thermochronology of the northern Rocky Mountains, western U.S.A.. Numerische Mathematik, 2012, 312, 145-212.	1.4	47
58	Thermochronologic Approaches to Paleotopography. Reviews in Mineralogy and Geochemistry, 2007, 66, 243-267.	4.8	46
59	Extremely low longâ€term erosion rates around the Gamburtsev Mountains in interior East Antarctica. Geophysical Research Letters, 2010, 37, .	4.0	46
60	From crucible to graben in 2.3 Ma: A high-resolution geochronological study of porphyry life cycles, Boyongan-Bayugo copper-gold deposits, Philippines. Geology, 2012, 40, 471-474.	4.4	43
61	Evidence for Multiple Mechanisms of Crustal Contamination of Magma from Compositionally Zoned Plutons and Associated Ultramafic Intrusions of the Alaska Range. Journal of Petrology, 1996, 37, 261-292.	2.8	40
62	(U-Th)/He geochronology and chemical compositions of diagenetic cement, concretions, and fracture-filling oxide minerals in Mesozoic sandstones of the Colorado Plateau. Bulletin of the Geological Society of America, 2014, 126, 1363-1383.	3.3	40
63	Hematite and Mn oxide (U-Th)/He dates from the Buckskin-Rawhide detachment system, western Arizona: Gaining insights into hematite (U-Th)/He systematics. Numerische Mathematik, 2014, 314, 1373-1435.	1.4	39
64	Low temperature thermochronology of the southern East Greenland continental margin: Evidence from apatite (Uâ€“Th)/He and fission track analysis and implications for intermethod calibration. Lithos, 2006, 92, 117-136.	1.4	36
65	Dating young basalt eruptions by (U-Th)/He on xenolithic zircons. Geology, 2007, 35, 17.	4.4	36
66	Unprecedented ³⁴Sâ€enrichment of pyrite formed following microbial sulfate reduction in fractured crystalline rocks. Geobiology, 2018, 16, 556-574.	2.4	34
67	Generation of Forsteritic Olivine (Fo99Â–8) by Subsolidus Oxidation in Basaltic Flows. Journal of Petrology, 2012, 53, 971-984.	2.8	32
68	Thermochronometric and textural evidence for seismicity via asperity flash heating on exhumed hematite fault mirrors, Wasatch fault zone, UT, USA. Earth and Planetary Science Letters, 2017, 471, 85-93.	4.4	32
69	Rates of sediment recycling beneath the Acapulco trench: Constraints from (U-Th)/He thermochronology. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	31
70	The relationships between tectonics, climate and exhumation in the Central Andes (18â€“36Â°S): Evidence from low-temperature thermochronology. Earth-Science Reviews, 2020, 210, 103276.	9.1	31
71	Timing Constraints of Gold Mineralization along the Carlin Trend Utilizing Apatite Fission-Track, 40Ar/39Ar, and Apatite (U-Th)/He Methods. Economic Geology, 2003, 98, 1159-1171.	3.8	30
72	Toward Robust Interpretation of Lowâ€Temperature Thermochronometers in Magmatic Terranes. Geochemistry, Geophysics, Geosystems, 2018, 19, 3739-3763.	2.5	29

#	Article	IF	Citations
73	Isotope dilution analysis of Ca and Zr in apatite and zircon (U-Th)/He chronometry. Geochemistry, Geophysics, Geosystems, 2016, 17, 1623-1640.	2.5	28
74	Two-phase Neogene extension in the northwestern Basin and Range recorded in a single thermochronology sample. Geology, 2008, 36, 631.	4.4	27
75	Effects of inherited cores and magmatic overgrowths on zircon (<scp>U</scp>â€<scp>T</scp>h)/<scp>H</scp>e ages and ageâ€e<scp>U</scp> trends from <scp>G</scp>reater <scp>H</scp>imalayan sequence rocks, <scp>M</scp>ount <scp>E</scp>verest region, <scp>T</scp>ibet. Geochemistry, Geophysics, Geosystems, 2015, 16, 2499-2507.	2.5	26
76	Single-crystal hematite (Uâ€“Th)/He dates and fluid inclusions document widespread Cryogenian sand injection in crystalline basement. Earth and Planetary Science Letters, 2018, 500, 145-155.	4.4	26
77	(U-Th)/He chronometry experiences a renaissance. Eos, 2002, 83, 21.	0.1	25
78	Slab window migration and terrane accretion preserved by lowâ€temperature thermochronology of a magmatic arc, northern Antarctic Peninsula. Geochemistry, Geophysics, Geosystems, 2010, 11, .	2.5	25
79	Late Cretaceous-Cenozoic exhumation history of Tiantangzhai region of Dabieshan Orogen: Constraints from (U-Th)/He and fission track analysis. Science Bulletin, 2003, 48, 1151-1156.	1.7	24
80	High-temperature Mars-to-Earth transfer of meteorite ALH84001. Earth and Planetary Science Letters, 2007, 260, 72-85.	4.4	24
81	Synorogenic extension localized by upper-crustal thickening: An example from the Late Cretaceous Nevadaplano. Geology, 2015, 43, 351-354.	4.4	24
82	(Uâ€“Th)/He dating of volcanic phenocrysts with high-Uâ€“Th inclusions, Jemez Volcanic Field, New Mexico. Chemical Geology, 2006, 227, 223-235.	3.3	23
83	Resolving spatial heterogeneities in exhumation and surface uplift in Timor-Leste: Constraints on deformation processes in young orogens. Tectonics, 2014, 33, 1089-1112.	2.8	21
84	The thermochronologic record of erosion and magmatism in the Canyonlands region of the Colorado Plateau. Numerische Mathematik, 2019, 319, 339-380.	1.4	21
85	Evidence for two shield volcanoes exposed on the island of Kauai, Hawaii. Geology, 1997, 25, 811.	4.4	20
86	Structural and petrologic evolution of the Lihue basin and eastern Kauai, Hawaii. Bulletin of the Geological Society of America, 1999, 111, 674-685.	3.3	20
87	Age and temperature of shock metamorphism of Martian meteorite Los Angeles from (U-Th)/He thermochronometry. Geology, 2004, 32, 677.	4.4	20
88	Relief evolution in northern Corsica (western Mediterranean): Constraints on uplift and erosion on long-term and short-term timescales. Journal of Geophysical Research, 2005, 110, .	3.3	20
89	Seismicity and the strange rubbing boulders of the Atacama Desert, northern Chile. Geology, 2012, 40, 851-854.	4.4	20
90	Conodont (Uâ€“Th)/He thermochronology: Initial results, potential, and problems. Earth and Planetary Science Letters, 2007, 258, 569-580.	4.4	18

#	Article	IF	Citations
91	Early Mesoproterozoic evolution of midcontinental Laurentia: Defining the geon 14 Baraboo orogeny. Geoscience Frontiers, 2021, 12, 101174.	8.4	18
92	Thermochronological evidence for Mio-Pliocene late orogenic extension in the north-eastern Albanides (Albania). Terra Nova, 2008, 20, 180-187.	2.1	17
93	Climate control on Quaternary coal fires and landscape evolution, Powder River basin, Wyoming and Montana. Geology, 2009, 37, 255-258.	4.4	16
94	Thermochronology of sandstone-hosted secondary Fe- and Mn-oxides near Moab, Utah: Record of paleoâ€“fluid flow along a fault. Bulletin of the Geological Society of America, 2018, 130, 93-113.	3.3	15
95	Rapid Oligocene to Early Miocene Extension Along the Grant Range Detachment System, Nevada, USA: Insights From Multipart Cooling Histories of Footwall Rocks. Tectonics, 2018, 37, 4752-4779.	2.8	15
96	Bayesian Markov-Chain Monte Carlo Inversion of Low-Temperature Thermochronology Around Two 8 â^' 10 m Wide Columbia River Flood Basalt Dikes. Frontiers in Earth Science, 2019, 7, .	1.8	15
97	Rapid erosion of the central Transantarctic Mountains at the Eocene-Oligocene transition: Evidence from skewed (U-Th)/He date distributions near Beardmore Glacier. Earth and Planetary Science Letters, 2021, 567, 117009.	4.4	15
98	Extraterrestrial dust, the marine lithologic record, and global biogeochemical cycles. Geology, 2018, 46, 863-866.	4.4	14
99	(Uâ€“Th)/He ages of phosphates from St. SÃ©verin LL6 chondrite. Geochimica Et Cosmochimica Acta, 2013, 100, 282-296.	3.9	13
100	Lowâ€temperature thermochronologic record of Eocene migmatite dome emplacement and late Cenozoic landscape development, Shuswap core complex, British Columbia. Tectonics, 2014, 33, 1616-1635.	2.8	11
101	Thermochronologic perspectives on the deep-time evolution of the deep biosphere. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	11
102	Reconciling regional continuity with local variability in structure, uplift and exhumation of the Timor orogen. Gondwana Research, 2017, 49, 364-386.	6.0	10
103	Hydrothermal events in the Linzizong Group: Implications for Paleogene exhumation and paleoaltimetry of the southern Tibetan Plateau. Earth and Planetary Science Letters, 2022, 583, 117390.	4.4	6
104	Kryptonâ€81 Dating Constrains Timing of Deep Groundwater Flow Activation. Geophysical Research Letters, 2022, 49, .	4.0	6
105	Unroofing history of Alabama and Poverty Hills basement blocks, Owens Valley, California, from apatite (Uâ€“Th)/He thermochronology. International Geology Review, 2009, 51, 1034-1050.	2.1	5
106	Detrital zircon U-Pb-He double dating: A method of quantifying long- and short-term exhumation rates in collisional orogens. Science China Earth Sciences, 2014, 57, 2702-2711.	5.2	4
107	Error Propagation in the Derivation of Noble Gas Diffusion Parameters for Minerals From Step Heating Experiments. Geochemistry, Geophysics, Geosystems, 2018, 19, 3706-3720.	2.5	4
108	Overlapping volcanoes: The origin of Hilo Ridge, Hawaii. Geology, 2000, 28, 547-550.	4.4	3

#	Article	IF	Citations
109	Geochronological Constraints on the Post-Collisional (150-75 Ma) Thermal Extension in the Dabieshan Orogen, Central China. Gondwana Research, 2001, 4, 829-831.	6.0	2
110	Application of the (Uâ€Th)/He Thermochronometry to the Tectonoâ€Thermal Evolution of Sedimentary Basinâ€"A Case History of Well KQ1 in the Tarim Basin. Chinese Journal of Geophysics, 2009, 52, 803-813.	0.2	2
111	Lithosphere today .... Nature, 2011, 472, 420-421.	27.8	1
112	Paleotopography in the western U.S. Cordillera. Numerische Mathematik, 2012, 312, 81-89.	1.4	1
113	(Uâ€Th)/He and ⁴He/³He Thermochronology of Secondary Oxides in Faults and Fractures: A Regional Perspective From Southeastern Arizona. Geochemistry, Geophysics, Geosystems, 2021, 22, e2021GC009905.	2.5	1