

Alfons Berger

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5113957/publications.pdf>

Version: 2024-02-01

106
papers

3,936
citations

117571

34
h-index

133188

59
g-index

137
all docs

137
docs citations

137
times ranked

2993
citing authors

#	ARTICLE	IF	CITATIONS
1	Prograde metamorphic sequence of REE minerals in pelitic rocks of the Central Alps: implications for allanite–monazite–xenotime phase relations from 250 to 610°C. <i>Journal of Metamorphic Geology</i> , 2008, 26, 509-526.	1.6	236
2	Protracted fluid-induced melting during Barrovian metamorphism in the Central Alps. <i>Contributions To Mineralogy and Petrology</i> , 2009, 158, 703-722.	1.2	176
3	U-Th-Pb and ²³⁰ Th/ ²³⁸ U disequilibrium isotope systematics: Precise accessory mineral chronology and melt evolution tracing in the Alpine Bergell intrusion. <i>Geochimica Et Cosmochimica Acta</i> , 2004, 68, 2543-2560.	1.6	139
4	The role of second phases for controlling microstructural evolution in polymineralic rocks: A review. <i>Journal of Structural Geology</i> , 2011, 33, 1728-1750.	1.0	135
5	Metamorphic rates in collisional orogeny from in situ allanite and monazite dating. <i>Geology</i> , 2009, 37, 11-14.	2.0	127
6	Rare earth element mineralogy and geochemistry in a laterite profile from Madagascar. <i>Applied Geochemistry</i> , 2014, 41, 218-228.	1.4	125
7	Deformation mechanisms and reaction of hornblende: examples from the Bergell tonalite (Central Alps). <i>Journal of Metamorphic Geology</i> , 2009, 27, 1089-1108.	0.9	108
8	Formation and composition of rhabdophane, bastnaesite and hydrated thorium minerals during alteration: Implications for geochronology and low-temperature processes. <i>Chemical Geology</i> , 2008, 254, 238-248.	1.4	107
9	Role of the tectonic accretion channel in collisional orogeny. <i>Geology</i> , 2001, 29, 1143.	2.0	104
10	Observations from the floor of a granitoid pluton: Inferences on the driving force of final emplacement. <i>Geology</i> , 1995, 23, 443.	2.0	92
11	Metamorphism of metasediments at the scale of an orogen: a key to the Tertiary geodynamic evolution of the Alps. <i>Geological Society Special Publication</i> , 2008, 298, 393-411.	0.8	90
12	The fate of chromium during tropical weathering: A laterite profile from Central Madagascar. <i>Geoderma</i> , 2014, 213, 521-532.	2.3	90
13	Tectonically controlled fluid flow and water-assisted melting in the middle crust: An example from the Central Alps. <i>Lithos</i> , 2008, 102, 598-615.	0.6	80
14	How is strain localized in a meta-granitoid, mid-crustal basement section? Spatial distribution of deformation in the central Aar massif (Switzerland). <i>Journal of Structural Geology</i> , 2017, 94, 47-67.	1.0	78
15	Quantitative analysis of crystal/grain sizes and their distributions in 2D and 3D. <i>Journal of Structural Geology</i> , 2011, 33, 1751-1763.	1.0	76
16	Deformation mechanisms in second-phase affected microstructures and their energy balance. <i>Journal of Structural Geology</i> , 2004, 26, 1483-1498.	1.0	74
17	Constraints on fluid evolution during metamorphism from U–Th–Pb systematics in Alpine hydrothermal monazite. <i>Chemical Geology</i> , 2012, 326-327, 61-71.	1.4	74
18	Subduction-related metamorphism in the Alps: review of isotopic ages based on petrology and their geodynamic consequences. <i>Geological Society Special Publication</i> , 2008, 298, 117-144.	0.8	71

#	ARTICLE	IF	CITATIONS
19	Deformation at the frictional-viscous transition: Evidence for cycles of fluid-assisted embrittlement and ductile deformation in the granitoid crust. <i>Tectonophysics</i> , 2016, 693, 66-84.	0.9	71
20	Mechanisms of mass and heat transport during Barrovian metamorphism: A discussion based on field evidence from the Central Alps (Switzerland/northern Italy). <i>Tectonics</i> , 2011, 30, .	1.3	67
21	Ce(III) and Ce(IV) (re)distribution and fractionation in a laterite profile from Madagascar: Insights from in situ XANES spectroscopy at the Ce LIII-edge. <i>Geochimica Et Cosmochimica Acta</i> , 2015, 153, 134-148.	1.6	67
22	Metamorphic Evolution of Cordierite-Bearing Migmatites from the Bayerische Wald (Variscan Belt), Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.1	63
23	Alpine orogenic evolution from subduction to collisional thermal overprint: The ⁴⁰ Ar/ ³⁹ Ar age constraints from the Valaisan Ocean, central Alps. <i>Tectonics</i> , 2009, 28, .	1.3	62
24	The Effects of Retrograde Reactions and of Diffusion on ⁴⁰ Ar- ³⁹ Ar Ages of Micas. <i>Journal of Petrology</i> , 2011, 52, 691-716.	1.1	60
25	Preservation of Permian allanite within an Alpine eclogite facies shear zone at Mt Mucrone, Italy: Mechanical and chemical behavior of allanite during mylonitization. <i>Lithos</i> , 2011, 125, 40-50.	0.6	52
26	From subduction to collision: Thermal overprint of HP/LT meta-sediments in the north-eastern Lepontine Dome (Swiss Alps) and consequences regarding the tectono-metamorphic evolution of the Alpine orogenic wedge. <i>Swiss Journal of Geosciences</i> , 2008, 101, 127-155.	0.5	51
27	Growth related zonations in authigenic and hydrothermal quartz characterized by SIMS-, EPMA-, SEM-CL- and SEM-CC-imaging. <i>Mineralogical Magazine</i> , 2009, 73, 633-643.	0.6	49
28	On the causes and modes of exhumation and lateral growth of the Alps. <i>Tectonics</i> , 2009, 28, .	1.3	48
29	3-D assessment of peak-metamorphic conditions by Raman spectroscopy of carbonaceous material: an example from the margin of the Lepontine dome (Swiss Central Alps). <i>International Journal of Earth Sciences</i> , 2011, 100, 1029-1063.	0.9	48
30	Allanite behaviour during incipient melting in the southern Central Alps. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 84, 433-458.	1.6	48
31	Large-Scale Crustal-Block-Extrusion During Late Alpine Collision. <i>Scientific Reports</i> , 2017, 7, 413.	1.6	46
32	Differences in grain growth of calcite: a field-based modeling approach. <i>Contributions To Mineralogy and Petrology</i> , 2003, 145, 600-611.	1.2	37
33	Aerosol processing and CCN formation of an intense Saharan dust plume during the EUCAARI 2008 campaign. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 3497-3516.	1.9	37
34	Inherited structural controls on fault geometry, architecture and hydrothermal activity: an example from Grimsel Pass, Switzerland. <i>Swiss Journal of Geosciences</i> , 2016, 109, 345-364.	0.5	37
35	Grain coarsening maps for polymineralic carbonate mylonites: A calibration based on data from different Helvetic nappes (Switzerland). <i>Tectonophysics</i> , 2008, 457, 128-142.	0.9	35
36	Late stages of continent-continent collision: Timing, kinematic evolution, and exhumation of the Northern rim (Aar Massif) of the Alps. <i>Earth-Science Reviews</i> , 2020, 200, 102959.	4.0	35

#	ARTICLE	IF	CITATIONS
37	Late Neoproterozoic, Ordovician and Carboniferous events recorded in monazites from southern-central Madagascar. <i>Precambrian Research</i> , 2006, 144, 278-296.	1.2	34
38	Relating orogen width to shortening, erosion, and exhumation during Alpine collision. <i>Tectonics</i> , 2015, 34, 1306-1328.	1.3	34
39	Th-U-Pb ion probe dating of zoned hydrothermal monazite and its implications for repeated shear zone activity: An example from the Central Alps, Switzerland. <i>Tectonics</i> , 2017, 36, 671-689.	1.3	34
40	Physico-chemical control on the REE minerals in chloritoid-grade metasediments from a single outcrop (Central Alps, Switzerland). <i>Lithos</i> , 2011, 121, 1-11.	0.6	33
41	Microstructures, mineral chemistry and geochronology of white micas along a retrograde evolution: An example from the Aar massif (Central Alps, Switzerland). <i>Tectonophysics</i> , 2017, 721, 179-195.	0.9	33
42	Methods and uncertainty estimations of 3-D structural modelling in crystalline rocks: a case study. <i>Solid Earth</i> , 2017, 8, 987-1002.	1.2	33
43	Linking megathrust earthquakes to brittle deformation in a fossil accretionary complex. <i>Nature Communications</i> , 2015, 6, 7504.	5.8	32
44	Grain coarsening in contact metamorphic carbonates: effects of second-phase particles, fluid flow and thermal perturbations. <i>Journal of Metamorphic Geology</i> , 2004, 22, 459-474.	1.6	30
45	Grain coarsening maps: A new tool to predict microfabric evolution of polymineralic rocks. <i>Geology</i> , 2005, 33, 801.	2.0	29
46	Discrimination of annealed and dynamic fabrics: Consequences for strain localization and deformation episodes of large-scale shear zones. <i>Earth and Planetary Science Letters</i> , 2008, 276, 52-61.	1.8	29
47	The timing of the tectono-metamorphic evolution at the Neoproterozoic-Phanerozoic boundary in central southern Madagascar. <i>Precambrian Research</i> , 2011, 185, 131-148.	1.2	27
48	Single and double exhumation of fault blocks in the internal Sesia-Lanzo Zone and the Ivrea-Verbano Zone (Biella, Italy). <i>International Journal of Earth Sciences</i> , 2012, 101, 1877-1894.	0.9	27
49	Dating emplacement and evolution of the orogenic magmatism in the internal Western Alps: 2. The Biella Volcanic Suite. <i>Swiss Journal of Geosciences</i> , 2012, 105, 67-84.	0.5	27
50	Large vertical displacements of a crystalline massif recorded by Raman thermometry. <i>Geology</i> , 2018, 46, 879-882.	2.0	27
51	Stability and isotopic dating of monazite and allanite in partially molten rocks: examples from the Central Alps. <i>Swiss Journal of Geosciences</i> , 2009, 102, 15-29.	0.5	24
52	Syntectonic melt pathways in granitic gneisses, and melt-induced transitions in deformation mechanisms. <i>Physics and Chemistry of the Earth</i> , 2001, 26, 287-293.	0.6	23
53	The accretion of foreland basin sediments during early stages of continental collision in the European Alps and similarities to accretionary wedge tectonics. <i>Tectonics</i> , 2016, 35, 2216-2238.	1.3	23
54	Chemical U-Th-Pb dating of monazite by 3D-Micro X-ray fluorescence analysis with synchrotron radiation. <i>European Journal of Mineralogy</i> , 2009, 21, 927-945.	0.4	22

#	ARTICLE	IF	CITATIONS
55	A new perspective on the significance of the Ranotsara shear zone in Madagascar. <i>International Journal of Earth Sciences</i> , 2010, 99, 1827-1847.	0.9	22
56	Dating brittle tectonic movements with cleft monazite: Fluid-rock interaction and formation of REE minerals. <i>Tectonics</i> , 2013, 32, 1176-1189.	1.3	21
57	Dating emplacement and evolution of the orogenic magmatism in the internal Western Alps: 1. The Miagliano Pluton. <i>Swiss Journal of Geosciences</i> , 2012, 105, 49-65.	0.5	20
58	Crystallization processes in migmatites. <i>American Mineralogist</i> , 2001, 86, 215-224.	0.9	18
59	Porphyroblast crystallization kinetics: the role of the nutrient production rate. <i>Journal of Metamorphic Geology</i> , 2011, 29, 497-512.	1.6	18
60	Constraining deformation phases in the Aar Massif and the Gotthard Nappe (Switzerland) using Th-Pb crystallization ages of fissure monazite-(Ce). <i>Lithos</i> , 2019, 342-343, 223-238.	0.6	18
61	Metamorphic Evolution of Cordierite-Bearing Migmatites from the Bayerische Wald (Variscan Belt.) <i>Tj ETQq1 1 0.784314 rgBT /Overlock</i>	1.1	18
62	The effect of deformation on the Titanium geothermobarometer: an experimental study. <i>Contributions To Mineralogy and Petrology</i> , 2014, 167, 1.	1.2	17
63	Age of cleft monazites in the eastern Tauern Window: constraints on crystallization conditions of hydrothermal monazite. <i>Swiss Journal of Geosciences</i> , 2015, 108, 55-74.	0.5	17
64	Structural characteristics, bulk porosity and evolution of an exhumed long-lived hydrothermal system. <i>Tectonophysics</i> , 2018, 747-748, 239-258.	0.9	17
65	Nondestructive chemical dating of young monazite using XRF. <i>Chemical Geology</i> , 2002, 191, 243-255.	1.4	16
66	Preservation of chemical residue-melt equilibria in natural anatexite: the effects of deformation and rapid cooling. <i>Contributions To Mineralogy and Petrology</i> , 2003, 144, 416-427.	1.2	15
67	Late Quaternary history of the Vakinankaratra volcanic field (central Madagascar): insights from luminescence dating of phreatomagmatic eruption deposits. <i>Bulletin of Volcanology</i> , 2014, 76, 1.	1.1	15
68	Structural and chemical resetting processes in white mica and their effect on K-Ar data during low temperature metamorphism. <i>Tectonophysics</i> , 2021, 800, 228708.	0.9	15
69	Structural and thermal evolution of the eastern Aar Massif: insights from structural field work and Raman thermometry. <i>Swiss Journal of Geosciences</i> , 2021, 114, 9.	0.5	15
70	Exhumation rates in the Archean from pressure-time paths: Example from the Skjoldungen Orogen (SE) <i>Tj ETQqq 0 0 rgBT /Overlock</i>	1.2	12
71	Constraining long-term fault activity in the brittle domain through in situ dating of hydrothermal monazite. <i>Terra Nova</i> , 2018, 30, 440-446.	0.9	12
72	Dynamic Recrystallization Can Produce Porosity in Shear Zones. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL086172.	1.5	12

#	ARTICLE	IF	CITATIONS
73	The potential of detrital garnet as a provenance proxy in the Central Swiss Alps. <i>Sedimentary Geology</i> , 2017, 351, 11-20.	1.0	11
74	Cockade structures as a paleo-earthquake proxy in upper crustal hydrothermal systems. <i>Scientific Reports</i> , 2019, 9, 9209.	1.6	11
75	The effects of a tectonic stress regime change on crustal-scale fluid flow at the Heyuan geothermal fault system, South China. <i>Tectonophysics</i> , 2020, 781, 228399.	0.9	11
76	Grain coarsening in polymineralic contact metamorphic carbonate rocks: The role of different physical interactions during coarsening. <i>Journal of Structural Geology</i> , 2011, 33, 698-712.	1.0	10
77	The composition and evolution of an Oligocene regolith on top of the Sesia-Lanzo Zone (Western Tj ETQq1 1 0,784314 rgBT /Ovele	0.9	10
78	Evaluation of Meso-NH and WRF/CHEM simulated gas and aerosol chemistry over Europe based on hourly observations. <i>Atmospheric Research</i> , 2016, 176-177, 43-63.	1.8	10
79	The relation between peak metamorphic temperatures and subsequent cooling during continent-continent collision (western Central Alps, Switzerland). <i>Swiss Journal of Geosciences</i> , 2020, 113, .	0.5	10
80	Crystal chemical and structural characterization of an Mg-rich osumilite from Vesuvius volcano (Italy). <i>European Journal of Mineralogy</i> , 2008, 20, 713-720.	0.4	9
81	Formation and preservation of biotite-rich microdomains in high-temperature rocks from the Antananarivo Block, Madagascar. <i>International Journal of Earth Sciences</i> , 2016, 105, 1471-1483.	0.9	9
82	Dating tectonic activity in the Lepontine Dome and Rhone-Simplon Fault regions through hydrothermal monazite-(Ce). <i>Solid Earth</i> , 2020, 11, 199-222.	1.2	9
83	Reaction-induced nucleation and growth <i>grain coarsening in contact metamorphic, impure carbonates. Journal of Metamorphic Geology</i> , 2010, 28, 809-824.	1.6	8
84	Dolomite microstructures between 390° and 700°C: Indications for deformation mechanisms and grain size evolution. <i>Journal of Structural Geology</i> , 2016, 89, 144-152.	1.0	8
85	Microstructural analyses of a giant quartz reef in south China reveal episodic brittle-ductile fluid transfer. <i>Journal of Structural Geology</i> , 2020, 130, 103911.	1.0	8
86	U-Pb geochronology of epidote by laser ablation inductively coupled plasma mass spectrometry (LA-ICP-MS) as a tool for dating hydrothermal-vein formation. <i>Geochronology</i> , 2021, 3, 123-147.	1.0	8
87	The evolution of slate microfabrics during progressive accretion of foreland basin sediments. <i>Journal of Structural Geology</i> , 2021, 150, 104404.	1.0	8
88	Episodes of fissure formation in the Alps: connecting quartz fluid inclusion, fissure monazite age, and fissure orientation data. <i>Swiss Journal of Geosciences</i> , 2021, 114, 14.	0.5	7
89	Multiscale porosity changes along the pro- and retrograde deformation path: an example from Alpine slates. <i>Solid Earth</i> , 2018, 9, 1141-1156.	1.2	6
90	Orogen-Parallel Migration of Exhumation in the Eastern Aar Massif Revealed by Low-T Thermochronometry. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2020JB020799.	1.4	6

#	ARTICLE	IF	CITATIONS
91	An improved equation for crystal size distribution in second-phase influenced aggregates. <i>American Mineralogist</i> , 2004, 89, 126-131.	0.9	5
92	Equilibration and disequilibrium between monazite and garnet: indication from phase-composition and quantitative texture analysis. <i>Journal of Metamorphic Geology</i> , 2005, 23, 051031032640004.	1.6	5
93	Testing High-Voltage Electrical Discharges in Disintegrating Claystone for Isotopic and Mineralogical Studies: An Example Using Opalinus Claystone. <i>Clays and Clay Minerals</i> , 2017, 65, 342-354.	0.6	5
94	Structural-permeability favorability in crystalline rocks and implications for groundwater flow paths: a case study from the Aar Massif (central Switzerland). <i>Hydrogeology Journal</i> , 2018, 26, 2725-2738.	0.9	5
95	Experimental evidence that viscous shear zones generate periodic pore sheets. <i>Solid Earth</i> , 2021, 12, 405-420.	1.2	5
96	From subduction to collision: thermal overprint of HP/LT meta-sediments in the north-eastern Lepontine Dome (Swiss Alps) and consequences regarding the tectono-metamorphic evolution of the Alpine orogenic wedge. , 2008, , S127-S155.		5
97	Cenozoic deformation in the Tauern Window (Eastern Alps) constrained by in situ Th-Pb dating of fissure monazite. <i>Solid Earth</i> , 2020, 11, 437-467.	1.2	5
98	Strain localization in ductile rocks: A comparison of natural and simulated pinch-and-swell structures. <i>Tectonophysics</i> , 2016, 680, 140-154.	0.9	4
99	Kinematics and significance of a poly-deformed crustal-scale shear zone in central to south-eastern Madagascar: the Itremo-Italamavony thrust. <i>International Journal of Earth Sciences</i> , 2017, 106, 2091-2108.	0.9	4
100	Apatite low-temperature chronometry and microstructures across a hydrothermally active fault zone. <i>Chemical Geology</i> , 2022, 588, 120633.	1.4	4
101	Tracing wedge-internal deformation by means of strontium isotope systematics of vein carbonates. <i>Geological Magazine</i> , 2022, 159, 2191-2205.	0.9	3
102	Correction to "On the causes and modes of exhumation and lateral growth of the Alps". <i>Tectonics</i> , 2010, 29, n/a-n/a.	1.3	2
103	The mineral factory: how to build a giant quartz reef. <i>ASEG Extended Abstracts</i> , 2019, 2019, 1-4.	0.1	1
104	Manganiferous minerals of the epidote group from the Archaean basement of West Greenland. <i>Bulletin of the Geological Society of Denmark</i> , 2014, 62, 27-32.	1.1	1
105	Reply to Higgins, M.D., 2012. Comment on Berger A., Herwegh M., Schwarz J.-O., Putlitz B., 2011. Quantitative analysis of crystal/grain sizes and their distributions in 2D and 3D. <i>Journal of Structural Geology</i> , 2012, 40, 56-57.	1.0	0
106	Grain-size-reducing- and mass-gaining processes in different hydrothermal fault rocks. <i>Geological Magazine</i> , 0, , 1-19.	0.9	0