

Kurt Bucher

List of Publications by Year in descending order

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58
papers

1,939
citations

304743

22
h-index

276875

41
g-index

65
all docs

65
docs citations

65
times ranked

1505
citing authors

#	ARTICLE	IF	CITATIONS
1	Blueschists, eclogites, and decompression assemblages of the Zermatt-Saas ophiolite: High-pressure metamorphism of subducted Tethys lithosphere. <i>American Mineralogist</i> , 2005, 90, 821-835.	1.9	153
2	Composition of fluids in the lower crust inferred from metamorphic salt in lower crustal rocks. <i>Nature</i> , 1998, 391, 781-783.	27.8	152
3	Petrogenesis of Metamorphic Rocks. , 2011, , .		149
4	Hydraulic properties of the crystalline basement. <i>Hydrogeology Journal</i> , 2007, 15, 213-224.	2.1	136
5	Coesite inclusions in garnet from eclogitic rocks in western Tianshan, northwest China: Convincing proof of UHP metamorphism. <i>American Mineralogist</i> , 2008, 93, 1845-1850.	1.9	128
6	Deep groundwater in the crystalline basement of the Black Forest region. <i>Applied Geochemistry</i> , 1999, 14, 237-254.	3.0	106
7	Is water responsible for geophysical anomalies in the deep continental crust? A petrological perspective. <i>Tectonophysics</i> , 1994, 231, 293-309.	2.2	95
8	Fluids in the upper continental crust. <i>Geofluids</i> , 2010, 10, 241-253.	0.7	73
9	Metamorphic Processes in Rodingites of the Zermatt-Saas Ophiolites. <i>International Geology Review</i> , 2004, 46, 28-51.	2.1	61
10	Eclogite facies metarodingites " phase relations in the system $\text{SiO}_2\text{-Al}_2\text{O}_3\text{-Fe}_2\text{O}_3\text{-FeO-MgO-CaO-CO}_2\text{-H}_2\text{O}$ as an example from the Zermatt-Saas ophiolite. <i>Journal of Metamorphic Geology</i> , 2008, 26, 347-364.		50
11	Proterozoic eclogites from the Lofoten islands, northern Norway. <i>Lithos</i> , 1997, 42, 15-35.	1.4	44
12	The Ohlsbach Plume " Discharge of deep saline water from the crystalline basement of the Black Forest, Germany. <i>Hydrogeology Journal</i> , 1999, 7, 273-283.	2.1	37
13	Omphacite-bearing calcite marble and associated coesite-bearing pelitic schist from the meta-ophiolitic belt of Chinese western Tianshan. <i>Journal of Asian Earth Sciences</i> , 2013, 76, 37-47.	2.3	35
14	Chlorine stable isotope composition of granulites from Lofoten, Norway: Implications for the Cl isotopic composition and for the source of Cl enrichment in the lower crust. <i>Earth and Planetary Science Letters</i> , 1997, 150, 95-102.	4.4	31
15	Fluid Transfer in High-grade Metamorphic Terrains Intruded by Anorogenic Granites: The Thor Range, Antarctica. <i>Journal of Petrology</i> , 2006, 47, 567-593.	2.8	31
16	Halogens in water from the crystalline basement of the Gotthard rail base tunnel (central Alps). <i>Geochimica Et Cosmochimica Acta</i> , 2010, 74, 2581-2595.	3.9	29
17	Water deep inside the mountains: Unique water samples from the Gotthard rail base tunnel, Switzerland. <i>Chemical Geology</i> , 2012, 334, 240-253.	3.3	26
18	Dating the initiation of Piemonte-Liguria Ocean subduction: Lu-Hf garnet chronometry of eclogites from the Theodul Glacier Unit (Zermatt-Saas zone, Switzerland). <i>Swiss Journal of Geosciences</i> , 2015, 108, 183-199.	1.2	26

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19	An eclogite-bearing continental tectonic slice in the Zermatt-Saas high-pressure ophiolites at Trockener Steg (Zermatt, Swiss Western Alps). <i>Lithos</i> , 2015, 232, 336-359.	1.4	25
20	Experimental interaction of hydrothermal Na-Cl solution with fracture surfaces of geothermal reservoir sandstone of the Upper Rhine Graben. <i>Applied Geochemistry</i> , 2017, 81, 36-52.	3.0	25
21	Mass transfer and porosity evolution during low temperature water-rock interaction in gneisses of the simano nappe: Arvigo, Val Calanca, Swiss Alps. <i>Contributions To Mineralogy and Petrology</i> , 2011, 162, 61-81.	3.1	24
22	A hot spring in granite of the Western Tianshan, China. <i>Applied Geochemistry</i> , 2009, 24, 402-410.	3.0	23
23	Chemical evolution of thermal waters from limestone aquifers of the Southern Upper Rhine Valley. <i>Applied Geochemistry</i> , 1999, 14, 223-235.	3.0	22
24	Water-rock reaction experiments with Black Forest gneiss and granite. <i>Water Science and Technology Library</i> , 2002, , 61-95.	0.3	19
25	Deep-fluids: Neptune meets Pluto. <i>Hydrogeology Journal</i> , 2005, 13, 112-115.	2.1	19
26	Timing of low-temperature mineral formation during exhumation and cooling in the Central Alps, Switzerland. <i>Earth and Planetary Science Letters</i> , 2012, 327-328, 1-8.	4.4	19
27	The Composition of Groundwater in the Continental Crystalline Crust. <i>Water Science and Technology Library</i> , 2000, , 141-175.	0.3	19
28	Groundwater in fractured crystalline rocks, the Clara mine, Black Forest (Germany). <i>International Journal of Earth Sciences</i> , 2009, 98, 1727-1739.	1.8	18
29	On the use of Li isotopes as a proxy for water-rock interaction in fractured crystalline rocks: A case study from the Gotthard rail base tunnel. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 198, 396-418.	3.9	16
30	Decoding the complex internal chemical structure of garnet porphyroblasts from the Zermatt area, Western Alps. <i>Journal of Metamorphic Geology</i> , 2019, 37, 1151-1169.	3.4	16
31	Quantifying the kinetics of olivine dissolution in partially closed and closed batch reactor systems. <i>Chemical Geology</i> , 2014, 367, 1-12.	3.3	14
32	Hydrochemical Groundwater Evolution in the Bunter Sandstone Sequence of the Odenwald Mountain Range, Germany: A Laboratory and Field Study. <i>Aquatic Geochemistry</i> , 2011, 17, 165-193.	1.3	13
33	Geochemical evidence for regional and long-term topography-driven groundwater flow in an orogenic crystalline basement (Aar Massif, Switzerland). <i>Journal of Hydrology</i> , 2020, 581, 124374.	5.4	13
34	Rocks control the chemical composition of surface water from the high Alpine Zermatt area (Swiss) <i>Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5</i>	1.2	11
35	Weathering crusts on peridotite. <i>Contributions To Mineralogy and Petrology</i> , 2015, 169, 1.	3.1	10
36	The Hydrogeochemistry of Arsenic in the Clara Mine, Germany. <i>Mine Water and the Environment</i> , 2003, 22, 110-117.	2.0	9

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37	Monazite-epidote reaction in amphibolite grade blackwall rocks. <i>European Journal of Mineralogy</i> , 2005, 17, 553-566.	1.3	9
38	Experiments on granite alteration under geothermal reservoir conditions and the initiation of fracture evolution. <i>European Journal of Mineralogy</i> , 2018, 30, 899-916.	1.3	9
39	The Theodul Glacier Unit, a slab of pre-Alpine rocks in the Alpine meta-ophiolite of Zermatt-Saas, Western Alps. <i>Swiss Journal of Geosciences</i> , 2020, 113, .	1.2	9
40	Hydraulic Properties of the Upper Continental Crust: data from the Urach 3 geothermal well. <i>Water Science and Technology Library</i> , 2000, , 53-78.	0.3	8
41	Herkunft der Salinität in Tiefenwässern des Grundgebirges - unter besonderer Berücksichtigung der Kristallinwässer des Schwarzwaldes. <i>Grundwasser</i> , 2000, 5, 125-140.	1.4	7
42	Fluid-induced mineral composition adjustments during exhumation: the case of Alpine stilbite. <i>Contributions To Mineralogy and Petrology</i> , 2013, 166, 1489-1503.	3.1	7
43	Bristen granite: a highly differentiated, fluorite-bearing A-type granite from the Aar massif, Central Alps, Switzerland. <i>Swiss Journal of Geosciences</i> , 2018, 111, 317-340.	1.2	7
44	Interaction of Mantle Rocks with Crustal Fluids: Sagvandites of the Scandinavian Caledonides. <i>Journal of Earth Science (Wuhan, China)</i> , 2019, 30, 1084-1094.	3.2	7
45	Geothermie. , 2020, , .		4
46	Deep hydrochemical section through the Central Alps: evolution of deep water in the continental upper crust and solute acquisition during water-rock-interaction along the Sedrun section of the Gotthard Base Tunnel. <i>Swiss Journal of Geosciences</i> , 2022, 115, .	1.2	4
47	Metamorphic gabbro and basalt in ophiolitic and continental nappes of the Zermatt region (Western) Tj ETQq1 1 0,784314 rgBT /Overlo	1.2	3
48	Metamorphism of Mafic Rocks. , 2011, , 339-393.		2
49	The deep Basel-1 geothermal well: an attempt assessing the predrilling hydraulic and hydrochemical conditions in the basement of the Upper Rhine Graben. <i>Swiss Journal of Geosciences</i> , 2022, 115, .	1.2	2
50	Gneiss-Water interaction and water evolution during the early stages of dissolution experiments at room temperature. <i>Diqu Huaxue</i> , 2003, 22, 302-312.	0.5	1
51	Definition, Conditions and Types of Metamorphism. , 2011, , 3-19.		1
52	Metamorphic Grade. , 2011, , 119-187.		1
53	Groundwater Evolution and Mineral Alteration Reactions in the Basaltic Rock Sequence of Mt. Wasserkuppe, Germany: A Case Study. <i>Aquatic Geochemistry</i> , 2012, 18, 185-215.	1.3	1
54	Reactivity of Geothermal Reservoir Rocks under Temperature Conditions Found in the Upper Rhine Graben (Germany). <i>Procedia Earth and Planetary Science</i> , 2017, 17, 881-884.	0.6	1

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55	Enhanced-Geothermal-Systems (EGS), Hot-Dry-Rock Systeme (HDR), Deep-Heat-Mining (DHM). , 2012, , 163-176.		1
56	Hydraulic conductivity of fractured upper crust: insights from hydraulic tests in boreholes and fluid-rock interaction in crystalline basement rocks. , 2016, , 174-188.		0
57	Controlling Factors of Metamorphism. , 2021, , 366-374.		0
58	Potentielle Umweltauswirkungen bei der Tiefen Geothermie. , 2012, , 177-197.		0