

# Lukas P Baumgartner

## List of Publications by Year in descending order

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77  
papers

2,909  
citations

218592

26  
h-index

175177

52  
g-index

79  
all docs

79  
docs citations

79  
times ranked

2254  
citing authors

#	ARTICLE	IF	CITATIONS
1	Interplay between fluid circulation and Alpine metamorphism in the Monte Rosa whiteschist from white mica and quartz in situ oxygen isotope analysis by SIMS. <i>American Mineralogist</i> , 2022, 107, 860-872.	0.9	1
2	Fast and pervasive diagenetic isotope exchange in foraminifera tests is species-dependent. <i>Nature Communications</i> , 2022, 13, 113.	5.8	9
3	Whiteschist genesis through metasomatism and metamorphism in the Monte Rosa nappe (Western Tj ETQq1 1 0.784314 rgBT /Ove	1.2	7
4	Peak Alpine metamorphic conditions from staurolite-bearing metapelites in the Monte Rosa nappe (Central European Alps) and geodynamic implications. <i>Journal of Metamorphic Geology</i> , 2021, 39, 897-917.	1.6	7
5	Mineral Dissolution and Precipitation Under Stress: Model Formulation and Application to Metamorphic Reactions. <i>Geochemistry, Geophysics, Geosystems</i> , 2021, 22, e2021GC009633.	1.0	4
6	Metamorphic transformation rate over large spatial and temporal scales constrained by geophysical data and coupled modelling. <i>Journal of Metamorphic Geology</i> , 2021, 39, 1131-1143.	1.6	9
7	Fluid mixing as primary trigger for cassiterite deposition: Evidence from in situ $\delta^{18}\text{O}$ - $\delta^{11}\text{B}$ analysis of tourmaline from the world-class San Rafael tin (-copper) deposit, Peru. <i>Earth and Planetary Science Letters</i> , 2021, 563, 116889.	1.8	23
8	A Method for Secondary Ion Mass Spectrometry Measurement of Lithium Isotopes in Garnet: The Utility of Glass Reference Materials. <i>Geostandards and Geoanalytical Research</i> , 2021, 45, 477-499.	1.7	13
9	Tracking fluid mixing in epithermal deposits – Insights from in-situ $\delta^{18}\text{O}$ and trace element composition of hydrothermal quartz from the giant Cerro de Pasco polymetallic deposit, Peru. <i>Chemical Geology</i> , 2021, 576, 120277.	1.4	8
10	Limited channelized fluid infiltration in the Torres del Paine contact aureole. <i>American Mineralogist</i> , 2021, 106, 1453-1469.	0.9	1
11	Alpine peak pressure and tectono-metamorphic history of the Monte Rosa nappe: evidence from the cirque du Vâraz, upper Ayas valley, Italy. <i>Swiss Journal of Geosciences</i> , 2021, 114, 20.	0.5	2
12	The role of the antigorite + brucite to olivine reaction in subducted serpentinites (Zermatt.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.5	22
13	Measurement of Volume Change and Mass Transfer During Serpentinization: Insights From the Oman Drilling Project. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2019JB018877.	1.4	23
14	Development and Re-Evaluation of Tourmaline Reference Materials for In Situ Measurement of Boron $\delta^{11}\text{B}$ Values by Secondary Ion Mass Spectrometry. <i>Geostandards and Geoanalytical Research</i> , 2020, 44, 593-615.	1.7	8
15	Origin of Monte Rosa whiteschist from in-situ tourmaline and quartz oxygen isotope analysis by SIMS using new tourmaline reference materials. <i>American Mineralogist</i> , 2019, 104, 1503-1520.	0.9	13
16	Oxygen isotope disequilibrium during serpentinite dehydration. <i>Terra Nova</i> , 2019, 31, 94-101.	0.9	10
17	Reactive fluid infiltration along fractures: Textural observations coupled to in-situ isotopic analyses. <i>Earth and Planetary Science Letters</i> , 2019, 519, 264-273.	1.8	11
18	Oxygen isotope speedometry in granulite facies garnet recording fluid/melt-rock interaction (SÃr) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	1.6	16

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19	The zircon Hf isotope archive of rapidly changing mantle sources in the south Patagonian retro-arc. <i>Bulletin of the Geological Society of America</i> , 2019, 131, 587-608.	1.6	5
20	Grain scale processes recorded by oxygen isotopes in olivine-hosted melt inclusions from two MORB samples. <i>Chemical Geology</i> , 2019, 511, 11-20.	1.4	4
21	Tracing of Cl input into the sub-arc mantle through the combined analysis of B, O and Cl isotopes in melt inclusions. <i>Earth and Planetary Science Letters</i> , 2019, 507, 30-39.	1.8	13
22	Carbonatitic dykes during Pangaea transtension (Pelagonian Zone, Greece). <i>Lithos</i> , 2018, 302-303, 329-340.	0.6	4
23	Source and fractionation controls on subduction-related plutons and dike swarms in southern Patagonia (Torres del Paine area) and the low Nb/Ta of upper crustal igneous rocks. <i>Contributions To Mineralogy and Petrology</i> , 2018, 173, 38.	1.2	22
24	Mineralized breccia clasts: a window into hidden porphyry-type mineralization underlying the epithermal polymetallic deposit of Cerro de Pasco (Peru). <i>Mineralium Deposita</i> , 2018, 53, 919-946.	1.7	26
25	Timing and thermal evolution of fold-and-thrust belt formation in the Ultima Esperanza District, 51°S Chile: Constraints from K-Ar dating and illite characterization. <i>Bulletin of the Geological Society of America</i> , 2018, 130, 975-998.	1.6	12
26	Multi fluid-flow record during episodic mode I opening: A microstructural and SIMS study (Cotiella). <i>Journal of Metamorphic Geology</i> , 2018, 36, 107-120.	1.8	13
27	Accurate Measurements of H <sub>2</sub> O, F and Cl Contents in Biotite Using Secondary Ion Mass Spectrometry. <i>Geostandards and Geoanalytical Research</i> , 2018, 42, 523-537.	1.7	4
28	Evaluation of potential monazite reference materials for oxygen isotope analyses by SIMS and laser assisted fluorination. <i>Chemical Geology</i> , 2017, 450, 199-209.	1.4	13
29	Experimental determination of melt interconnectivity and electrical conductivity in the upper mantle. <i>Earth and Planetary Science Letters</i> , 2017, 463, 286-297.	1.8	44
30	Silica-undersaturated reaction zones at a crust-mantle interface in the Highland Complex, Sri Lanka: Mass transfer and melt infiltration during high-temperature metasomatism. <i>Lithos</i> , 2017, 284-285, 237-256.	0.6	8
31	SIMS chlorine isotope analyses in melt inclusions from arc settings. <i>Chemical Geology</i> , 2017, 449, 112-122.	1.4	25
32	Petrologic and stable isotopic studies of a fossil hydrothermal system in ultramafic environment (Chenaillat ophiolites, Western Alps, France): Processes of carbonate cementation. <i>Lithos</i> , 2017, 294-295, 319-338.	0.6	39
33	Protracted storage of CR chondrules in a region of the disk transparent to galactic cosmic rays. <i>Meteoritics and Planetary Science</i> , 2017, 52, 2166-2177.	0.7	5
34	Quartz Reference Materials for Oxygen Isotope Analysis by SIMS. <i>Geostandards and Geoanalytical Research</i> , 2017, 41, 69-75.	1.7	30
35	Weekly to monthly time scale of melt inclusion entrapment prior to eruption recorded by phosphorus distribution in olivine from mid-ocean ridges. <i>Geology</i> , 2017, 45, 1059-1062.	2.0	25
36	Cosmic-ray exposure ages of chondrules. <i>Meteoritics and Planetary Science</i> , 2016, 51, 1256-1267.	0.7	14

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37	Heterogeneous melt and hypersaline liquid inclusions in shallow porphyry type mineralization as markers of the magmatic-hydrothermal transition (Cerro de Pasco district, Peru). <i>Chemical Geology</i> , 2016, 447, 93-116.	1.4	38
38	Short magmatic residence times of quartz phenocrysts in Patagonian rhyolites associated with Gondwana breakup. <i>Geology</i> , 2016, 44, 67-70.	2.0	23
39	Evidence for cavity-dwelling microbial life in 3.22 Ga tidal deposits. <i>Geology</i> , 2016, 44, 51-54.	2.0	38
40	Low melting temperature for calcite at 1000 bars on the join $\text{CaCO}_3\text{-H}_2\text{O}$ – some geological implications. <i>Terra Nova</i> , 2015, 27, 364-369.	0.9	27
41	High-resolution 3D analyses of the shape and internal constituents of small volcanic ash particles: The contribution of SEM micro-computed tomography (SEM micro-CT). <i>Journal of Volcanology and Geothermal Research</i> , 2015, 293, 1-12.	0.8	31
42	Constraining magmatic fluxes through thermal modelling of contact metamorphism. <i>Geological Society Special Publication</i> , 2015, 422, 41-56.	0.8	15
43	An observational and thermodynamic investigation of carbonate partial melting. <i>Earth and Planetary Science Letters</i> , 2015, 409, 147-156.	1.8	20
44	Rb-Sr ages from phengite inclusions in garnets from high pressure rocks of the Swiss Western Alps. <i>Earth and Planetary Science Letters</i> , 2014, 395, 205-216.	1.8	39
45	Two-Stage, Extreme Albitization of A-type Granites from Rajasthan, NW India. <i>Journal of Petrology</i> , 2012, 53, 919-948.	1.1	81
46	Time resolved construction of a bimodal laccolith (Torres del Paine, Patagonia). <i>Earth and Planetary Science Letters</i> , 2012, 325-326, 85-92.	1.8	116
47	Modelling changes in stable isotope compositions of minerals during net transfer reactions in a contact aureole: Wollastonite growth at the northern Hunter Mountain Batholith (Death Valley) <a href="#">Tj ETQq1 1 0.7843i14 rgBT /@verlock</a>		
48	The duration of prograde garnet crystallization in the UHP eclogites at Lago di Cignana, Italy. <i>Earth and Planetary Science Letters</i> , 2009, 287, 402-411.	1.8	51
49	Estimation of a maximum Lu diffusion rate in a natural eclogite garnet. <i>Swiss Journal of Geosciences</i> , 2008, 101, 637-650.	0.5	28
50	Forward modeling of the effects of mixed volatile reaction, volume diffusion, and formation of submicroscopic exsolution lamellae on calcite-dolomite thermometry. <i>American Mineralogist</i> , 2008, 93, 1245-1259.	0.9	16
51	Growth mechanism of snowball garnets from the Lukmanier Pass area (Central Alps, Switzerland): a combined $^{40}\text{Ar}/^{39}\text{Ar}$ /EPMA/EBSD study. <i>Terra Nova</i> , 2007, 19, 240-244.	0.9	15
52	Diffusion-limited REE uptake by eclogite garnets and its consequences for Lu-Hf and Sm-Nd geochronology. <i>Contributions To Mineralogy and Petrology</i> , 2006, 152, 703-720.	1.2	194
53	Coupling of oceanic and continental crust during Eocene eclogite-facies metamorphism: evidence from the Monte Rosa nappe, western Alps. <i>Contributions To Mineralogy and Petrology</i> , 2006, 153, 139-157.	1.2	70
54	Provenance of Jurassic Tethyan sediments in the HP/UHP Zermatt-Saas ophiolite, western Alps. <i>Bulletin of the Geological Society of America</i> , 2005, 117, 530.	1.6	21

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55	Modelling mid-crustal migmatite terrains as feeder zones for granite plutons: the competing dynamics of melt transfer by bulk versus porous flow. <i>Earth and Environmental Science Transactions of the Royal Society of Edinburgh</i> , 2004, 95, 49-58.	0.3	20
56	Modelling mid-crustal migmatite terrains as feeder zones for granite plutons: the competing dynamics of melt transfer by bulk versus porous flow. , 2004, , .		1
57	Metastable prograde mineral reactions in contact aureoles. <i>Geology</i> , 2004, 32, 821.	2.0	40
58	Reply to: Comment on "Solubility of the Assemblage Albite+K-Feldspar+Andalusite+Quartz in Supercritical Aqueous Chloride Solutions at 650 °C and 2 kbar" by D.J. Wesolowski. <i>Chemical Geology</i> , 2004, 211, 179-180.	1.4	0
59	Solubility of the assemblage albite+K-feldspar+andalusite+quartz in supercritical aqueous chloride solutions at 650 °C and 2 kbar. <i>Chemical Geology</i> , 2003, 200, 377-393.	1.4	23
60	Burial rates during prograde metamorphism of an ultra-high-pressure terrane: an example from Lago di Cignana, western Alps, Italy. <i>Earth and Planetary Science Letters</i> , 2003, 215, 57-72.	1.8	291
61	Stacking fault-enhanced argon diffusion in naturally deformed muscovite. <i>Geological Society Special Publication</i> , 2003, 220, 249-260.	0.8	15
62	Partial Melting and Assimilation of Dolomitic Xenoliths by Mafic Magma: the Ioko-Dovyren Intrusion (North Baikal Region, Russia). <i>Journal of Petrology</i> , 2002, 43, 2049-2074.	1.1	90
63	Experimental study on the solubility of the "model" pelite mineral assemblage albite + K-feldspar + andalusite + quartz in supercritical chloride-rich aqueous solutions at 0.2 GPa and 600°C. <i>Geochimica Et Cosmochimica Acta</i> , 2001, 65, 4493-4507.	1.6	22
64	7. Stable Isotope Transport and Contact Metamorphic Fluid Flow. , 2001, , 415-468.		81
65	New U-Pb zircon data and constraints on the age and mode of migmatization in the Aar massif, Central Alps. <i>European Journal of Mineralogy</i> , 2000, 12, 1245-1260.	0.4	10
66	Rapid exhumation of the Zermatt-Saas ophiolite deduced from high-precision SmNd and RbSr geochronology. <i>Earth and Planetary Science Letters</i> , 1999, 171, 425-438.	1.8	199
67	Convective fluid flow through heterogeneous country rocks during contact metamorphism. <i>Journal of Geophysical Research</i> , 1998, 103, 23983-24003.	3.3	35
68	Nucleation-dominated crystallization of forsterite in the Ubehebe Peak contact aureole, California. <i>Geology</i> , 1997, 25, 823.	2.0	27
69	Porosity and Permeability of Carbonate Rocks During Contact Metamorphism. , 1997, , 83-98.		11
70	Stochastic permeability models of fluid flow during contact metamorphism. <i>Geology</i> , 1995, 23, 945.	2.0	31
71	The oxygen isotope anatomy of a slowly cooled metamorphic rock. <i>American Mineralogist</i> , 1995, 80, 757-764.	0.9	23
72	A least-squares approach to mass transport calculations using the isocon method. <i>Economic Geology</i> , 1995, 90, 1261-1270.	1.8	96

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73	Experimental determination of anorthite solubility and calcium speciation in supercritical chloride solutions at 2 kb from 400 to 600°C. <i>Geochimica Et Cosmochimica Acta</i> , 1995, 59, 1539-1549.	1.6	20
74	One- and two-dimensional models of fluid flow and stable isotope exchange at an outcrop in the Adamello contact aureole, Southern Alps, Italy. <i>American Mineralogist</i> , 1995, 80, 1004-1019.	0.9	51
75	A new look at stable isotope thermometry. <i>Geochimica Et Cosmochimica Acta</i> , 1993, 57, 2571-2583.	1.6	133
76	Intercrystalline stable isotope diffusion: a fast grain boundary model. <i>Contributions To Mineralogy and Petrology</i> , 1992, 112, 543-557.	1.2	183
77	A model for coupled fluid-flow and mixed-volatile mineral reactions with applications to regional metamorphism. <i>Contributions To Mineralogy and Petrology</i> , 1991, 106, 273-285.	1.2	143