

# Bernd Wunder

## List of Publications by Year in descending order

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65  
papers

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236925

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#	ARTICLE	IF	CITATIONS
1	Orthopyroxene rim growth during reaction of (Co, Ni, Mn, Zn)-doped forsterite and quartz: Experimental constraints on element distribution and grain boundary diffusion. <i>Mineralogy and Petrology</i> , 2022, 116, 137-149.	1.1	1
2	In situ reinvestigation of reaction phase A plus high-pressure clinoenstatite to forsterite plus water in the system MgO-SiO <sub>2</sub> -H <sub>2</sub> O (MSH). <i>European Journal of Mineralogy</i> , 2022, 34, 201-213.	1.3	1
3	Corundum-quartz metastability: the influence of a nanometer-sized phase on mineral equilibria in the system Al <sub>2</sub> O <sub>3</sub> -SiO <sub>2</sub> -H <sub>2</sub> O. <i>Contributions To Mineralogy and Petrology</i> , 2021, 176, 1.	3.1	3
4	Raman spectroscopic quantification of tetrahedral boron in synthetic aluminum-rich tourmaline. <i>American Mineralogist</i> , 2021, 106, 872-882.	1.9	2
5	High-pressure, halogen-bearing melt preserved in ultrahigh-temperature felsic granulites of the Central Maine Terrane, Connecticut (U.S.A.). <i>American Mineralogist</i> , 2021, 106, 1225-1236.	1.9	15
6	New insights in the mechanisms of the reaction 3.65% Å phase =% clinoenstatite + water down to nanoscales. <i>European Journal of Mineralogy</i> , 2021, 33, 675-686.	1.3	4
7	Synthesis and crystal structure of Pb-dominant tourmaline. <i>American Mineralogist</i> , 2020, , .	1.9	4
8	In situ micro-FTIR spectroscopic investigations of synthetic ammonium phengite under pressure and temperature. <i>European Journal of Mineralogy</i> , 2020, 32, 469-482.	1.3	2
9	Anomalous elastic behavior of phase egg, AlSiO <sub>3</sub> (OH), at high pressures. <i>American Mineralogist</i> , 2019, 104, 130-139.	1.9	7
10	Compressibility of synthetic Mg-Al tourmalines to 60 GPa. <i>American Mineralogist</i> , 2019, 104, 1005-1015.	1.9	11
11	A treasure chest full of nanogranitoids: an archive to investigate crustal melting in the Bohemian Massif. <i>Geological Society Special Publication</i> , 2019, 478, 13-38.	1.3	16
12	Boron Isotope Fractionation Among Vapor-Liquids-Solids-Melts: Experiments and Atomistic Modeling. <i>Advances in Isotope Geochemistry</i> , 2018, , 33-69.	1.4	22
13	Partial melting of ultramafic granulites from Dronning Maud Land, Antarctica: Constraints from melt inclusions and thermodynamic modeling. <i>American Mineralogist</i> , 2018, 103, 610-622.	1.9	20
14	Synthetic [4]B-bearing dumortierite and natural [4]B-free magnesiodumortierite from the Dora-Maira Massif: differences in boron coordination in response to ultrahigh pressure. <i>European Journal of Mineralogy</i> , 2018, 30, 471-483.	1.3	4
15	Elasticity of phase-Pi (Al <sub>3</sub> Si <sub>2</sub> O <sub>7</sub> (OH) <sub>3</sub> ) - A hydrous aluminosilicate phase. <i>Physics of the Earth and Planetary Interiors</i> , 2017, 269, 91-97.	1.9	8
16	First high-pressure synthesis of rossmanitic tourmaline and evidence for the incorporation of Li at the X site. <i>Physics and Chemistry of Minerals</i> , 2017, 44, 353-363.	0.8	12
17	An experimental approach to quantify the effect of tetrahedral boron in tourmaline on the boron isotope fractionation between tourmaline and fluid. <i>American Mineralogist</i> , 2017, 102, 2505-2511.	1.9	10
18	Jeremejevitte as a precursor for olenitic tourmaline: consequences of non-classical crystallization pathways for composition, textures and B isotope patterns of tourmaline. <i>European Journal of Mineralogy</i> , 2017, 29, 239-255.	1.3	6

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19	Carbonatitic and granitic melts produced under conditions of primary immiscibility during anatexis in the lower crust. <i>Earth and Planetary Science Letters</i> , 2016, 454, 121-131.	4.4	43
20	Special Collection: Advances in Ultrahigh-Pressure Metamorphism: Tetrahedral boron in natural and synthetic HP/UHP tourmaline: Evidence from Raman spectroscopy, EMPA, and single-crystal XRD. <i>American Mineralogist</i> , 2016, 101, 93-104.	1.9	27
21	Kumdykolite, kokchetavite, and cristobalite crystallized in nanogranites from felsic granulites, Orlica-Snieznik Dome (Bohemian Massif): not evidence for ultrahigh-pressure conditions. <i>Contributions To Mineralogy and Petrology</i> , 2016, 171, 1.	3.1	45
22	P&T controls on Ca and Na distribution between Mg-Al tourmaline and fluid. <i>Contributions To Mineralogy and Petrology</i> , 2016, 171, 1.	3.1	21
23	Creating Reactivity with Unstable Endmembers using Pressure and Temperature: Synthesis of Bulk Cubic $Mg_{0.4}Fe_{0.6}N$ . <i>Angewandte Chemie - International Edition</i> , 2015, 54, 15109-15112.	13.8	7
24	An experimental study on K and Na incorporation in dravitic tourmaline and insight into the origin of diamondiferous tourmaline from the Kokchetav Massif, Kazakhstan. <i>Contributions To Mineralogy and Petrology</i> , 2015, 169, 1.	3.1	34
25	Synthetic and natural ammonium-bearing tourmaline. <i>American Mineralogist</i> , 2015, 100, 250-256.	1.9	20
26	Preserved near ultrahigh-pressure melt from continental crust subducted to mantle depths. <i>Geology</i> , 2015, 43, 447-450.	4.4	73
27	Equation of state and elasticity of the 3.65 Å... phase: Implications for the X-discontinuity. <i>American Mineralogist</i> , 2015, 100, 2199-2208.	1.9	17
28	Synthesis of K-dominant tourmaline. <i>American Mineralogist</i> , 2014, 99, 539-542.	1.9	24
29	Experimental study of phlogopite reaction rim formation on olivine in phonolite melts: Kinetics, reaction rates, and residence times. <i>American Mineralogist</i> , 2014, 99, 2211-2226.	1.9	7
30	Experimental reactions between olivine and orthopyroxene with phonolite melt: implications for the origins of hydrous amphibole-â&#x2013;phlogopite-â&#x2013;diopside bearing metasomatic veins. <i>Contributions To Mineralogy and Petrology</i> , 2014, 168, 1.	3.1	9
31	Ab initio prediction of equilibrium boron isotope fractionation between minerals and aqueous fluids at high P and T. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 101, 285-301.	3.9	87
32	Very little water is necessary to make a dry solid silicate system wet. <i>Geology</i> , 2013, 41, 247-250.	4.4	68
33	The 3.65 Å phase, $MgSi(OH)_6$ : Structural insights from DFT-calculations and T-dependent IR spectroscopy. <i>American Mineralogist</i> , 2012, 97, 1043-1048.	1.9	19
34	LREE-redistribution among fluorapatite, monazite, and allanite at high pressures and temperatures. <i>American Mineralogist</i> , 2012, 97, 1881-1890.	1.9	22
35	A single-crystal X-ray diffraction study of the 3.65 Å...-phase $MgSi(OH)_6$ , a high-pressure hydroxide perovskite. <i>Physics and Chemistry of Minerals</i> , 2012, 39, 693-697.	0.8	16
36	Behavior of fluid-mobile elements in serpentines from abyssal to subduction environments: Examples from Cuba and Dominican Republic. <i>Chemical Geology</i> , 2012, 312-313, 93-117.	3.3	94

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37	Pressure-induced hydrogen bond symmetrisation in guyanaite, $\hat{I}^2$ -CrOOH: evidence from spectroscopy and ab initio simulations. <i>European Journal of Mineralogy</i> , 2012, 24, 839-850.	1.3	14
38	The 3.65 A phase in the system MgO-SiO <sub>2</sub> -H <sub>2</sub> O: Synthesis, composition, and structure. <i>American Mineralogist</i> , 2011, 96, 1207-1214.	1.9	16
39	Li-isotope fractionation between silicates and fluids: Pressure dependence and influence of the bonding environment. <i>European Journal of Mineralogy</i> , 2011, 23, 333-342.	1.3	59
40	Temperature dependence of the OH-stretching frequencies in topaz-OH. <i>Physics and Chemistry of Minerals</i> , 2010, 37, 65-72.	0.8	10
41	The OH site in topaz: an IR spectroscopic investigation. <i>Physics and Chemistry of Minerals</i> , 2010, 37, 653-664.	0.8	5
42	The effect of chrysotile nanotubes on the serpentine-fluid Li-isotopic fractionation. <i>Contributions To Mineralogy and Petrology</i> , 2010, 159, 781-790.	3.1	41
43	Ammonium-bearing clinopyroxene: A potential nitrogen reservoir in the Earth's mantle. <i>Chemical Geology</i> , 2010, 270, 240-248.	3.3	84
44	High-pressure ammonium-bearing silicates: Implications for nitrogen and hydrogen storage in the Earth's mantle. <i>American Mineralogist</i> , 2009, 94, 283-292.	1.9	85
45	Orthopyroxene rim growth between olivine and quartz at low temperatures (750-950°C) and low water concentration. <i>Mineralogy and Petrology</i> , 2009, 97, 223-232.	1.1	22
46	Trace element partitioning between orthopyroxene and anhydrous silicate melt on the Iherzolite solidus from 1.1 to 3.2 GPa and 1,230 to 1,535°C in the model system Na <sub>2</sub> O-CaO-MgO-Al <sub>2</sub> O <sub>3</sub> -SiO <sub>2</sub> . <i>Contributions To Mineralogy and Petrology</i> , 2009, 157, 473-490.	3.1	62
47	Experimental boron isotope fractionation between tourmaline and fluid: confirmation from in situ analyses by secondary ion mass spectrometry and from Rayleigh fractionation modelling. <i>Contributions To Mineralogy and Petrology</i> , 2009, 158, 675-681.	3.1	65
48	Lithium speciation in aqueous fluids at high P and T studied by ab initio molecular dynamics and consequences for Li-isotope fractionation between minerals and fluids. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 5428-5434.	3.9	53
49	Boron-isotope fractionation between tourmaline and fluid: an experimental re-investigation. <i>Contributions To Mineralogy and Petrology</i> , 2008, 156, 259-267.	3.1	173
50	Component mobility at 900°C and 18kbar from experimentally grown coronas in a natural gabbro. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 4307-4322.	3.9	11
51	Lithium isotope fractionation between Li-bearing staurolite, Li-mica and aqueous fluids: An experimental study. <i>Chemical Geology</i> , 2007, 238, 277-290.	3.3	156
52	Temperature-dependent isotopic fractionation of lithium between clinopyroxene and high-pressure hydrous fluids. <i>Contributions To Mineralogy and Petrology</i> , 2006, 151, 112-120.	3.1	191
53	Temperature distribution in piston-cylinder assemblies: Numerical simulations and laboratory experiments. <i>European Journal of Mineralogy</i> , 2004, 16, 7-14.	1.3	33
54	Experimental evidence on phlogopitic mantle metasomatism induced by phengite dehydration. <i>European Journal of Mineralogy</i> , 2003, 15, 641-647.	1.3	20

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55	Interlayer vacancy characterization of synthetic phlogopitic micas by IR spectroscopy. European Journal of Mineralogy, 2002, 14, 1129-1138.	1.3	25
56	K <sup>+</sup> Rb <sup>+</sup> Cs partitioning between phlogopite and fluid: experiments and consequences for the LILE signatures of island arc basalts. Lithos, 2001, 59, 69-90.	1.4	30
57	Antigorite: Pressure and temperature dependence of polysomatism and water content. European Journal of Mineralogy, 2001, 13, 485-495.	1.3	90
58	Island-arc basalt alkali ratios: Constraints from phengite-fluid partitioning experiments. Geology, 2000, 28, 583.	4.4	59
59	High-pressure synthesis and properties of OH-rich topaz. European Journal of Mineralogy, 1999, 11, 803-814.	1.3	38
60	Heat capacity of wadeite-type K <sub>2</sub> Si <sub>4</sub> O <sub>9</sub> and the pressure-induced stable decomposition of K-feldspar. Contributions To Mineralogy and Petrology, 1998, 131, 210-218.	3.1	27
61	Equilibrium experiments in the system MgO-SiO <sub>2</sub> -H <sub>2</sub> O (MSH): stability fields of clinohumite-OH [Mg <sub>9</sub> Si <sub>4</sub> O <sub>16</sub> (OH) <sub>2</sub> ], chondrodite-OH [Mg <sub>5</sub> Si <sub>2</sub> O <sub>8</sub> (OH) <sub>2</sub> ] and phase A (Mg <sub>7</sub> Si <sub>2</sub> O <sub>8</sub> (OH) <sub>6</sub> ). Contributions To Mineralogy and Petrology, 1998, 132, 111-120.	3.1	79
62	Ab-initio synthesis and TEM confirmation of antigorite in the system MgO-SiO <sub>2</sub> -H <sub>2</sub> O. American Mineralogist, 1997, 82, 760-764.	1.9	17
63	Antigorite: High-pressure stability in the system MgO-SiO <sub>2</sub> -H <sub>2</sub> O (MSH). Lithos, 1997, 41, 213-227.	1.4	239
64	Al <sub>3</sub> Si <sub>2</sub> O <sub>7</sub> (OH) <sub>3</sub> , phase Pi (formerly piezotite): Crystal structure of a synthetic high-pressure silicate rediscovered. European Journal of Mineralogy, 1997, 8, 1283-1292.	1.3	5
65	Synthesis, properties and stability of Al <sub>3</sub> Si <sub>2</sub> O <sub>7</sub> (OH) <sub>3</sub> (phase Pi), a hydrous high - pressure phase in the system Al <sub>2</sub> O <sub>3</sub> - SiO <sub>2</sub> - H <sub>2</sub> O (ASH). European Journal of Mineralogy, 1993, 5, 637-650.	1.3	39