# Bernd Wunder

## List of Publications by Year in descending order

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Version: 2024-02-01

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|---|---|---|---|
| 65 papers | 2,532 citations | 236925 25 h-index | 197818 49 g-index |
| 66 all docs | 66 docs citations | 66 times ranked | 2014 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Antigorite: High-pressure stability in the system MgOî—¸SiO2î—¸H2O (MSH). Lithos, 1997, 41, 213-227. | 1.4 | 239 |
| 2 | Temperature-dependent isotopic fractionation of lithium between clinopyroxene and high-pressure hydrous fluids. Contributions To Mineralogy and Petrology, 2006, 151, 112-120. | 3.1 | 191 |
| 3 | Boron-isotope fractionation between tourmaline and fluid: an experimental re-investigation. Contributions To Mineralogy and Petrology, 2008, 156, 259-267. | 3.1 | 173 |
| 4 | Lithium isotope fractionation between Li-bearing staurolite, Li-mica and aqueous fluids: An experimental study. Chemical Geology, 2007, 238, 277-290. | 3.3 | 156 |
| 5 | Behavior of fluid-mobile elements in serpentines from abyssal to subduction environments: Examples from Cuba and Dominican Republic. Chemical Geology, 2012, 312-313, 93-117. | 3.3 | 94 |
| 6 | Antigorite: Pressure and temperature dependence of polysomatism and water content. European Journal of Mineralogy, 2001, 13, 485-495. | 1.3 | 90 |
| 7 | Ab initio prediction of equilibrium boron isotope fractionation between minerals and aqueous fluids at high P and T. Geochimica Et Cosmochimica Acta, 2013, 101, 285-301. | 3.9 | 87 |
| 8 | High-pressure ammonium-bearing silicates: Implications for nitrogen and hydrogen storage in the Earth's mantle. American Mineralogist, 2009, 94, 283-292. | 1.9 | 85 |
| 9 | Ammonium-bearing clinopyroxene: A potential nitrogen reservoir in the Earth's mantle. Chemical Geology, 2010, 270, 240-248. | 3.3 | 84 |
| 10 | Equilibrium experiments in the system MgO-SiO 2 -H 2 O (MSH): stability fields of clinohumite-OH [Mg 9 Si 4 O 16 (OH) 2 ], chondrodite-OH [Mg 5 Si 2 O 8 (OH) 2 ] and phase A (Mg 7 Si 2 O 8 (OH) 6 ). Contributions To Mineralogy and Petrology, 1998, 132, 111-120. | 3.1 | 79 |
| 11 | Preserved near ultrahigh-pressure melt from continental crust subducted to mantle depths. Geology, 2015, 43, 447-450. | 4.4 | 73 |
| 12 | Very little water is necessary to make a dry solid silicate system wet. Geology, 2013, 41, 247-250. | 4.4 | 68 |
| 13 | Experimental boron isotope fractionation between tourmaline and fluid: confirmation from in situ analyses by secondary ion mass spectrometry and from Rayleigh fractionation modelling. Contributions To Mineralogy and Petrology, 2009, 158, 675-681. | 3.1 | 65 |
| 14 | Trace element partitioning between orthopyroxene and anhydrous silicate melt on the lherzolite solidus from 1.1 to 3.2ÂGPa and 1,230 to 1,535Â°C in the model system Na2Oâ€“CaOâ€“MgOâ€“Al2O3â€“SiO2. Contributions To Mineralogy and Petrology, 2009, 157, 473-490. | 3.1 | 62 |
| 15 | Island-arc basalt alkali ratios: Constraints from phengite-fluid partitioning experiments. Geology, 2000, 28, 583. | 4.4 | 59 |
| 16 | Li-isotope fractionation between silicates and fluids: Pressure dependence and influence of the bonding environment. European Journal of Mineralogy, 2011, 23, 333-342. | 1.3 | 59 |
| 17 | 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. Geochimica Et Cosmochimica Acta, 2009, 73, 5428-5434. | 3.9 | 53 |
| 18 | Kumdykolite, kokchetavite, and cristobalite crystallized in nanogranites from felsic granulites, Orlica-Snieznik Dome (Bohemian Massif): not evidence for ultrahigh-pressure conditions. Contributions To Mineralogy and Petrology, 2016, 171, 1. | 3.1 | 45 |

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|---|---|---|---|
| 19 | Carbonatitic and granitic melts produced under conditions of primary immiscibility during anatexis in the lower crust. Earth and Planetary Science Letters, 2016, 454, 121-131. | 4.4 | 43 |
| 20 | The effect of chrysotile nanotubes on the serpentine-fluid Li-isotopic fractionation. Contributions To Mineralogy and Petrology, 2010, 159, 781-790. | 3.1 | 41 |
| 21 | Synthesis, properties and stability of Al3Si2O7(OH)3 (phase Pi), a hydrous high - pressure phase in the system Al2O3 - SiO2 - H2O (ASH). European Journal of Mineralogy, 1993, 5, 637-650. | 1.3 | 39 |
| 22 | High-pressure synthesis and properties of OH-rich topaz. European Journal of Mineralogy, 1999, 11, 803-814. | 1.3 | 38 |
| 23 | An experimental study on K and Na incorporation in dravitic tourmaline and insight into the origin of diamondiferous tourmaline from the Kokchetav Massif, Kazakhstan. Contributions To Mineralogy and Petrology, 2015, 169, 1. | 3.1 | 34 |
| 24 | Temperature distribution in piston-cylinder assemblies: Numerical simulations and laboratory experiments. European Journal of Mineralogy, 2004, 16, 7-14. | 1.3 | 33 |
| 25 | Kâ€“Rbâ€“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 |
| 26 | Heat capacity of wadeite-type K 2 Si 4 O 9 and the pressure-induced stable decomposition of K-feldspar. Contributions To Mineralogy and Petrology, 1998, 131, 210-218. | 3.1 | 27 |
| 27 | 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. American Mineralogist, 2016, 101, 93-104. | 1.9 | 27 |
| 28 | Interlayer vacancy characterization of synthetic phlogopitic micas by IR spectroscopy. European Journal of Mineralogy, 2002, 14, 1129-1138. | 1.3 | 25 |
| 29 | Synthesis of K-dominant tourmaline. American Mineralogist, 2014, 99, 539-542. | 1.9 | 24 |
| 30 | Orthopyroxene rim growth between olivine and quartz at low temperatures (750â€“950Â°C) and low water concentration. Mineralogy and Petrology, 2009, 97, 223-232. | 1.1 | 22 |
| 31 | LREE-redistribution among fluorapatite, monazite, and allanite at high pressures and temperatures. American Mineralogist, 2012, 97, 1881-1890. | 1.9 | 22 |
| 32 | Boron Isotope Fractionation Among Vaporâ€“Liquidsâ€“Solidsâ€“Melts: Experiments and Atomistic Modeling. Advances in Isotope Geochemistry, 2018, , 33-69. | 1.4 | 22 |
| 33 | Pâ€“Tâ€“X controls on Ca and Na distribution between Mgâ€“Al tourmaline and fluid. Contributions To Mineralogy and Petrology, 2016, 171, 1. | 3.1 | 21 |
| 34 | Experimental evidence on phlogopitic mantle metasomatism induced by phengite dehydration. European Journal of Mineralogy, 2003, 15, 641-647. | 1.3 | 20 |
| 35 | Synthetic and natural ammonium-bearing tourmaline. American Mineralogist, 2015, 100, 250-256. | 1.9 | 20 |
| 36 | Partial melting of ultramafic granulites from Dronning Maud Land, Antarctica: Constraints from melt inclusions and thermodynamic modeling. American Mineralogist, 2018, 103, 610-622. | 1.9 | 20 |

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|---|---|---|---|
| 37 | The 3.65 A phase, MgSi(OH)6: Structural insights from DFT-calculations and T-dependent IR spectroscopy. American Mineralogist, 2012, 97, 1043-1048. | 1.9 | 19 |
| 38 | 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 |
| 39 | Equation of state and elasticity of the 3.65 Ã... phase: Implications for the X-discontinuity. American Mineralogist, 2015, 100, 2199-2208. | 1.9 | 17 |
| 40 | The 3.65 A phase in the system MgO-SiO2-H2O: Synthesis, composition, and structure. American Mineralogist, 2011, 96, 1207-1214. | 1.9 | 16 |
| 41 | A single-crystal X-ray diffraction study of the 3.65ÂÃ...-phase MgSi(OH)6, a high-pressure hydroxide perovskite. Physics and Chemistry of Minerals, 2012, 39, 693-697. | 0.8 | 16 |
| 42 | A treasure chest full of nanogranitoids: an archive to investigate crustal melting in the Bohemian Massif. Geological Society Special Publication, 2019, 478, 13-38. | 1.3 | 16 |
| 43 | High-pressure, halogen-bearing melt preserved in ultrahigh-temperature felsic granulites of the Central Maine Terrane, Connecticut (U.S.A.). American Mineralogist, 2021, 106, 1225-1236. | 1.9 | 15 |
| 44 | Pressure-induced hydrogen bond symmetrisation in guyanaite, Î²-CrOOH: evidence from spectroscopy and ab initio simulations. European Journal of Mineralogy, 2012, 24, 839-850. | 1.3 | 14 |
| 45 | First high-pressure synthesis of rossmanitic tourmaline and evidence for the incorporation of Li at the X site. Physics and Chemistry of Minerals, 2017, 44, 353-363. | 0.8 | 12 |
| 46 | Component mobility at 900Â°C and 18kbar from experimentally grown coronas in a natural gabbro. Geochimica Et Cosmochimica Acta, 2008, 72, 4307-4322. | 3.9 | 11 |
| 47 | Compressibility of synthetic Mg-Al tourmalines to 60 GPa. American Mineralogist, 2019, 104, 1005-1015. | 1.9 | 11 |
| 48 | Temperature dependence of the OH-stretching frequencies in topaz-OH. Physics and Chemistry of Minerals, 2010, 37, 65-72. | 0.8 | 10 |
| 49 | An experimental approach to quantify the effect of tetrahedral boron in tourmaline on the boron isotope fractionation between tourmaline and fluid. American Mineralogist, 2017, 102, 2505-2511. | 1.9 | 10 |
| 50 | Experimental reactions between olivine and orthopyroxene with phonolite melt: implications for the origins of hydrous amphiboleÂ+ÂphlogopiteÂ+Âdiopside bearing metasomatic veins. Contributions To Mineralogy and Petrology, 2014, 168, 1. | 3.1 | 9 |
| 51 | Elasticity of phase-Pi (Al3Si2O7(OH)3) â€“ A hydrous aluminosilicate phase. Physics of the Earth and Planetary Interiors, 2017, 269, 91-97. | 1.9 | 8 |
| 52 | Experimental study of phlogopite reaction rim formation on olivine in phonolite melts: Kinetics, reaction rates, and residence times. American Mineralogist, 2014, 99, 2211-2226. | 1.9 | 7 |
| 53 | Creating Reactivity with Unstable Endmembers using Pressure and Temperature: Synthesis of Bulk Cubic Mg<sub>0.4</sub>Fe<sub>0.6</sub>N. Angewandte Chemie - International Edition, 2015, 54, 15109-15112. | 13.8 | 7 |
| 54 | Anomalous elastic behavior of phase egg, AlSiO3(OH), at high pressures. American Mineralogist, 2019, 104, 130-139. | 1.9 | 7 |

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|---|---|---|---|
| 55 | Jeremejevite as a precursor for olenitic tourmaline: consequences of non-classical crystallization pathways for composition, textures and B isotope patterns of tourmaline. European Journal of Mineralogy, 2017, 29, 239-255. | 1.3 | 6 |
| 56 | The OH site in topaz: an IR spectroscopic investigation. Physics and Chemistry of Minerals, 2010, 37, 653-664. | 0.8 | 5 |
| 57 | Al3Si2O7(OH)3, phase Pi (formerly piezotite): Crystal structure of a synthetic high-pressure silicate rediscovered. European Journal of Mineralogy, 1997, 8, 1283-1292. | 1.3 | 5 |
| 58 | 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. European Journal of Mineralogy, 2018, 30, 471-483. | 1.3 | 4 |
| 59 | Synthesis and crystal structure of Pb-dominant tourmaline. American Mineralogist, 2020, , . | 1.9 | 4 |
| 60 | New insights in the mechanisms of the reaction 3.65â€‰Ã…Âphase â€‰=â€‰ clinoenstatite + water down to nanoscales. European Journal of Mineralogy, 2021, 33, 675-686. | 1.3 | 4 |
| 61 | Corundum-quartz metastability: the influence of a nanometer-sized phase on mineral equilibria in the system Al2O3â€“SiO2â€“H2O. Contributions To Mineralogy and Petrology, 2021, 176, 1. | 3.1 | 3 |
| 62 | Raman spectroscopic quantification of tetrahedral boron in synthetic aluminum-rich tourmaline. American Mineralogist, 2021, 106, 872-882. | 1.9 | 2 |
| 63 | In situ micro-FTIR spectroscopic investigations of synthetic ammonium phengite under pressure and temperature. European Journal of Mineralogy, 2020, 32, 469-482. | 1.3 | 2 |
| 64 | Orthopyroxene rim growth during reaction of (Co, Ni, Mn, Zn)-doped forsterite and quartz: Experimental constraints on element distribution and grain boundary diffusion. Mineralogy and Petrology, 2022, 116, 137-149. | 1.1 | 1 |
| 65 | 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). European Journal of Mineralogy, 2022, 34, 201-213. | 1.3 | 1 |