

Barbara Lavina

List of Publications by Citations

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42
papers

853
citations

14
h-index

28
g-index

53
ext. papers

978
ext. citations

3.7
avg, IF

3.86
L-index

#	Paper	IF	Citations
42	Cation distribution and structure modelling of spinel solid solutions. <i>Physics and Chemistry of Minerals</i> , 2002 , 29, 10-18	1.6	114
41	Discovery of the recoverable high-pressure iron oxide Fe ₄ O ₅ . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 17281-5	11.5	94
40	Siderite at lower mantle conditions and the effects of the pressure-induced spin-pairing transition. <i>Geophysical Research Letters</i> , 2009 , 36,	4.9	67
39	An experimental study of the oxidation state of vanadium in spinel and basaltic melt with implications for the origin of planetary basalt. <i>American Mineralogist</i> , 2006 , 91, 1643-1656	2.9	65
38	Structure of siderite FeCO ₃ to 56 GPa and hysteresis of its spin-pairing transition. <i>Physical Review B</i> , 2010 , 82,	3.3	59
37	Magneto-elastic coupling in compressed Fe ₇ C ₃ supports carbon in Earth's inner core. <i>Geophysical Research Letters</i> , 2012 , 39,	4.9	53
36	Unraveling the complexity of iron oxides at high pressure and temperature: Synthesis of Fe ₅ O ₆ . <i>Science Advances</i> , 2015 , 1, e1400260	14.3	51
35	High-pressure polymorphism of Fe ₂ P and its implications for meteorites and Earth's core. <i>Geophysical Research Letters</i> , 2008 , 35,	4.9	48
34	High-pressure structural, elastic, and thermodynamic properties of zircon-type HoPO and TmPO. <i>Journal of Physics Condensed Matter</i> , 2017 , 29, 095401	1.8	31
33	Chemical composition, crystal structure, and their relationships with the intrinsic properties of spinel-type crystals based on bond valences. <i>Inorganic Chemistry</i> , 2014 , 53, 5986-92	5.1	27
32	Modern X-ray Diffraction Methods in Mineralogy and Geosciences. <i>Reviews in Mineralogy and Geochemistry</i> , 2014 , 78, 1-31	7.1	26
31	Effect of dilution on the spin pairing transition in rhombohedral carbonates. <i>High Pressure Research</i> , 2010 , 30, 224-229	1.6	24
30	Single-crystal X-ray diffraction of spinels from the San Carlos Volcanic Field, Arizona: Spinel as a geothermometer. <i>American Mineralogist</i> , 2005 , 90, 1900-1908	2.9	23
29	Structural and electronic evolution of Cr ₂ O ₃ on compression to 55 GPa. <i>Journal of Solid State Chemistry</i> , 2011 , 184, 3040-3049	3.3	21
28	Structure and behavior of the barringerite Ni end-member, Ni ₂ P, at deep Earth conditions and implications for natural Fe-Ni phosphides in planetary cores. <i>Journal of Geophysical Research</i> , 2009 , 114,		14
27	Pressure-induced development of bonding in NiAs type compounds and polymorphism of NiP. <i>Journal of Solid State Chemistry</i> , 2011 , 184, 1997-2003	3.3	13
26	Closure temperatures of intracrystalline ordering in anatectic and metamorphic hercynite, Fe ₂ +Al ₂ O ₄ . <i>American Mineralogist</i> , 2009 , 94, 657-665	2.9	11

25	Controlled time-temperature oxidation reaction in a synthetic Mg-hercynite. <i>Physics and Chemistry of Minerals</i> , 2005 , 32, 83-88	1.6	11
24	The crystal structure of dissakisite-(La) and structural variations after annealing of radiation damage. <i>American Mineralogist</i> , 2006 , 91, 104-110	2.9	8
23	Phosphorus Dimerization in Gallium Phosphide at High Pressure. <i>Inorganic Chemistry</i> , 2018 , 57, 2432-2437	3.1	7
22	Nuclear forward scattering and first-principles studies of the iron oxide phase Fe ₄ O ₅ . <i>Physical Review B</i> , 2014 , 90,	3.3	7
21	High-pressure X-ray diffraction and X-ray emission studies on iron-bearing silicate perovskite under high pressures. <i>High Pressure Research</i> , 2010 , 30, 230-237	1.6	7
20	Cation distribution and cooling rates of Cr-substituted Mg-Al spinel from the Olkhon metamorphic complex, Russia. <i>European Journal of Mineralogy</i> , 2003 , 15, 435-441	2.2	7
19	X-ray diffraction and equation of state of the C-S-H room-temperature superconductor. <i>Journal of Chemical Physics</i> , 2021 , 155, 114703	3.9	7
18	Investigation of synthetic Mg _{1.3} V _{1.7} O ₄ spinel with MgO inclusions: Case study of a spinel with an apparently occupied interstitial site. <i>American Mineralogist</i> , 2007 , 92, 1031-1037	2.9	6
17	Loss and Isotopic Fractionation of Alkali Elements during Diffusion-Limited Evaporation from Molten Silicate: Theory and Experiments. <i>ACS Earth and Space Chemistry</i> , 2021 , 5, 755-784	3.2	6
16	The Water-Fe-Pressure dependent single-crystal elastic properties of wadsleyite: Implications for the seismic anisotropy in the upper Mantle Transition Zone. <i>Earth and Planetary Science Letters</i> , 2021 , 565, 116955	5.3	6
15	High pressure effects on U L ₃ x-ray absorption in partial fluorescence yield mode and single crystal x-ray diffraction in the heavy fermion compound UCd ₁₁ . <i>Journal of Physics Condensed Matter</i> , 2016 , 28, 105601	1.8	6
14	The Structure of Ferroselite, FeSe ₂ , at Pressures up to 46 GPa and Temperatures down to 50 K: A Single-Crystal Micro-Diffraction Analysis. <i>Crystals</i> , 2018 , 8, 289	2.3	6
13	Crystal chemistry of some Mg, Cr, V normal spinels from Sludyanka (Lake Baikal, Russia): the influence of V ³⁺ on structural stability. <i>Physics and Chemistry of Minerals</i> , 2003 , 30, 599-605	1.6	5
12	Synthesis and microdiffraction at extreme pressures and temperatures. <i>Journal of Visualized Experiments</i> , 2013 ,	1.6	4
11	Coupling of organic cation and inorganic lattice in methylammonium lead halide perovskites: Insights into a pressure-induced isostructural phase transition. <i>Physical Review Materials</i> , 2020 , 4,	3.2	4
10	Equation of state for technetium from X-ray diffraction and first-principle calculations. <i>Journal of Physics and Chemistry of Solids</i> , 2016 , 95, 6-11	3.9	4
9	Piezomagnetic switching and complex phase equilibria in uranium dioxide. <i>Communications Materials</i> , 2021 , 2,	6	4
8	Structure modelling and cation partitioning of spinel solid solutions at high T,P conditions. <i>Physics and Chemistry of Minerals</i> , 2004 , 31, 45-51	1.6	1

7	The novel high-pressure/high-temperature compound CoP determined from synchrotron data. <i>Acta Crystallographica Section E: Crystallographic Communications</i> , 2020 , 76, 1665-1668	0.7	1
6	Sound velocity and compressibility of melts along the hedenbergite (CaFeSi ₂ O ₆)-diopside (CaMgSi ₂ O ₆) join at high pressure: Implications for stability and seismic signature of Fe-rich melts in the mantle. <i>Earth and Planetary Science Letters</i> , 2022 , 577, 117250	5.3	1
5	Probing structure-property relationship in chemical vapor deposited hybrid perovskites by pressure and temperature. <i>Journal of Materials Research</i> , 2021 , 36, 1805-1812	2.5	1
4	Synthesis and chemical stability of technetium nitrides. <i>Chemical Communications</i> , 2021 , 57, 8079-8082	5.8	1
3	Thermal Analysis, Compressibility, and Decomposition of Synthetic Bastn�ite-(La) to Lanthanum Oxyfluoride. <i>Minerals (Basel, Switzerland)</i> , 2020 , 10, 212	2.4	0
2	Tyrrellite, Cu(Co _{0.68} Ni _{0.32}) ₂ Se ₄ , isostructural with spinel. <i>Acta Crystallographica Section C: Crystal Structure Communications</i> , 2007 , 63, i73-4		0
1	Stability of the sc16 polymorph of GaAs. <i>Journal of Physics and Chemistry of Solids</i> , 2021 , 159, 110233	3.9	0