

Fabrice Brunet

List of Publications by Year in descending order

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75
papers

3,256
citations

147726

31
h-index

149623

56
g-index

79
all docs

79
docs citations

79
times ranked

3812
citing authors

#	ARTICLE	IF	CITATIONS
1	Graphitization in a high-pressure, low-temperature metamorphic gradient: a Raman microspectroscopy and HRTEM study. <i>Contributions To Mineralogy and Petrology</i> , 2002, 143, 19-31.	1.2	287
2	Heterogeneous porosity distribution in Portland cement exposed to CO ₂ -rich fluids. <i>Cement and Concrete Research</i> , 2008, 38, 1038-1048.	4.6	209
3	High-velocity frictional properties of a clay-bearing fault gouge and implications for earthquake mechanics. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	177
4	Density distribution of the India plate beneath the Tibetan plateau: Geophysical and petrological constraints on the kinetics of lower-crustal eclogitization. <i>Earth and Planetary Science Letters</i> , 2007, 264, 226-244.	1.8	168
5	Serpentinization of oceanic peridotites: 2. Kinetics and processes of San Carlos olivine hydrothermal alteration. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	128
6	Thermochemistry of monazite-(La) and dissakisite-(La): implications for monazite and allanite stability in metapelites. <i>Contributions To Mineralogy and Petrology</i> , 2007, 154, 1-14.	1.2	125
7	Evolution of the REE mineralogy in HP-LT metapelites of the Sebide complex, Rif, Morocco: Monazite stability and geochronology. <i>Lithos</i> , 2006, 87, 214-234.	0.6	120
8	Deep-Focus Earthquake Analogs Recorded at High Pressure and Temperature in the Laboratory. <i>Science</i> , 2013, 341, 1377-1380.	6.0	120
9	Experimental study of the microtextural and structural transformations of carbonaceous materials under pressure and temperature. <i>European Journal of Mineralogy</i> , 2004, 15, 937-951.	0.4	112
10	Effect of carbonation on the hydro-mechanical properties of Portland cements. <i>Cement and Concrete Research</i> , 2009, 39, 1156-1163.	4.6	102
11	Nanodiamond nucleation below 2273K at 15GPa from carbons with different structural organizations. <i>Carbon</i> , 2007, 45, 636-648.	5.4	83
12	Compressibility and thermal expansivity of synthetic apatites, Ca ₅ (PO ₄) ₃ X with X = OH, F and Cl. <i>European Journal of Mineralogy</i> , 1999, 11, 1023-1036.	0.4	77
13	Enhanced Olivine Carbonation within a Basalt as Compared to Single-Phase Experiments: Reevaluating the Potential of CO ₂ Mineral Sequestration. <i>Environmental Science & Technology</i> , 2014, 48, 5512-5519.	4.6	70
14	Raman spectroscopic properties and Raman identification of Ca ₂ MgMnFeCr ₂ FeS ₄ sulfides in meteorites and reduced sulfur-rich systems. <i>Meteoritics and Planetary Science</i> , 2013, 48, 1415-1426.	0.7	68
15	Ce(III) and Ce(IV) (re)distribution and fractionation in a laterite profile from Madagascar: Insights from in situ XANES spectroscopy at the Ce LIII-edge. <i>Geochimica Et Cosmochimica Acta</i> , 2015, 153, 134-148.	1.6	67
16	Partitioning of phosphorus between olivine, clinopyroxene and silicate glass in a spinel lherzolite xenolith from Yemen. <i>Chemical Geology</i> , 2001, 176, 51-72.	1.4	65
17	Formation of CO ₂ , H ₂ and condensed carbon from siderite dissolution in the 200-300°C range and at 50MPa. <i>Geochimica Et Cosmochimica Acta</i> , 2015, 154, 201-211.	1.6	65
18	Oxygen isotope heterogeneities and diffusion profile in composite metamorphic-magmatic garnets from the Pyrenees. <i>American Mineralogist</i> , 2005, 90, 463-472.	0.9	58

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19	Serpentinization of oceanic peridotites: 1. A high-sensitivity method to monitor magnetite production in hydrothermal experiments. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	57
20	SIMS analyses of oxygen isotopes: Matrix effects in Fe-Mg-Ca garnets. <i>Chemical Geology</i> , 2005, 223, 208-226.	1.4	56
21	How Mercury can be the most reduced terrestrial planet and still store iron in its mantle. <i>Earth and Planetary Science Letters</i> , 2014, 394, 186-197.	1.8	54
22	Simultaneous acoustic emissions monitoring and synchrotron X-ray diffraction at high pressure and temperature: Calibration and application to serpentinite dehydration. <i>Physics of the Earth and Planetary Interiors</i> , 2011, 189, 121-133.	0.7	51
23	Low-temperature Wollastonite Formed by Carbonate Reduction: a Marker of Serpentinite Redox Conditions. <i>Journal of Petrology</i> , 2012, 53, 159-176.	1.1	49
24	Phase relations in the MgO-P ₂ O ₅ -H ₂ O system and the stability of phosphoellenbergerite: petrological implications. <i>Contributions To Mineralogy and Petrology</i> , 1998, 131, 54-70.	1.2	47
25	The deleterious effect of secondary phases on olivine carbonation yield: Insight from time-resolved aqueous-fluid sampling and FIB-TEM characterization. <i>Chemical Geology</i> , 2013, 357, 186-202.	1.4	47
26	Raman mapping and numerical simulation of calcium carbonates distribution in experimentally carbonated Portland-cement cores. <i>European Journal of Mineralogy</i> , 2010, 22, 63-74.	0.4	44
27	Changes on the nanostructure of cementitious calcium silicate hydrates (C-S-H) induced by aqueous carbonation. <i>Journal of Materials Science</i> , 2012, 47, 764-771.	1.7	40
28	Na ₃ Al ₂ (PO ₄) ₃ , a fast sodium conductor at high pressure: in-situ impedance spectroscopy characterisation and phase diagram up to 8 GPa. <i>Solid State Ionics</i> , 2003, 159, 35-47.	1.3	35
29	High-purity hydrogen gas from the reaction between BOF steel slag and water in the 473-673 K range. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 7382-7393.	3.8	34
30	Complete solid-solution between Na ₃ Al ₂ (PO ₄) ₃ and Mg ₃ Al ₂ (SiO ₄) ₃ garnets at high pressure. <i>American Mineralogist</i> , 2006, 91, 211-215.	0.9	33
31	Water diffusion-transport in a synthetic dunite: Consequences for oceanic peridotite serpentinization. <i>Earth and Planetary Science Letters</i> , 2014, 403, 263-272.	1.8	33
32	Melting textures and microdiamonds preserved in graphite pseudomorphs from the Beni Bousera peridotite massif, Morocco. <i>European Journal of Mineralogy</i> , 2011, 23, 157-168.	0.4	32
33	Experimental study and modeling of fluid reaction paths in the quartz-kyanite-muscovite-water system at 0.7 GPa in the 350-550°C range: Implications for Al selective transfer during metamorphism. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 1772-1788.	1.6	31
34	A laboratory nanoseismological study on deep-focus earthquake micromechanics. <i>Science Advances</i> , 2017, 3, e1601896.	4.7	30
35	Bearthite, Ca ₂ Al(PO ₄) ₂ OH: stability, thermodynamic properties and phase relations. <i>Contributions To Mineralogy and Petrology</i> , 1995, 121, 258-266.	1.2	28
36	Metamorphic veining and mass transfer in a chemically closed system: a case study in Alpine metabauxites (western Vanoise). <i>Journal of Metamorphic Geology</i> , 2011, 29, 275-300.	1.6	28

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37	Role of iron content on serpentinite dehydration depth in subduction zones: Experiments and thermodynamic modeling. <i>Lithos</i> , 2016, 264, 441-452.	0.6	28
38	Experimental insight into redox transfer by iron- and sulfur-bearing serpentinite dehydration in subduction zones. <i>Earth and Planetary Science Letters</i> , 2017, 479, 133-143.	1.8	27
39	Electrical conductivity of polycrystalline Mg(OH) ₂ at 2 GPa: effect of grain boundary hydration-dehydration. <i>Physics and Chemistry of Minerals</i> , 2011, 38, 543-556.	0.3	25
40	In situ measurements of Li isotopes in foraminifera. <i>Geochemistry, Geophysics, Geosystems</i> , 2007, 8, n/a-n/a.	1.0	23
41	The farringtonite / Mg ₃ (PO ₄) ₂ -II transformation: A new curve for pressure calibration in piston-cylinder apparatus. <i>European Journal of Mineralogy</i> , 1996, 8, 349-354.	0.4	23
42	H ₂ dynamics in the soil of a H ₂ -emitting zone (São Francisco Basin, Brazil): Microbial uptake quantification and reactive transport modelling. <i>Applied Geochemistry</i> , 2020, 112, 104474.	1.4	22
43	Hydrogen production by hydrothermal oxidation of FeO under acidic conditions. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 795-806.	3.8	21
44	Hydrothermal Production of H ₂ and Magnetite From Steel Slags: A Geo-Inspired Approach Based on Olivine Serpentinization. <i>Frontiers in Earth Science</i> , 2019, 7, .	0.8	21
45	Structure Cristalline de la Phase Haute Température et Haute Pression de Mg ₃ (PO ₄) ₂ . <i>Journal of Solid State Chemistry</i> , 1997, 129, 341-345.	1.4	19
46	Space and time distribution of subsurface H ₂ concentration in so-called "fairly circles": Insight from a conceptual 2-D transport model. <i>Bulletin - Societe Geologique De France</i> , 2020, 191, 13.	0.9	17
47	Unraveling the exhumation history of high-pressure ophiolites using magnetite (U-Th-Sm)/He thermochronometry. <i>Earth and Planetary Science Letters</i> , 2020, 543, 116359.	1.8	15
48	In situ X-ray diffraction study of an aluminous phase in MORB under lower mantle conditions. <i>Physics and Chemistry of Minerals</i> , 2006, 33, 28-34.	0.3	14
49	Raadeite, Mg ₇ (PO ₄) ₂ (OH) ₈ : a new dense-packed phosphate from Modum (Norway). <i>European Journal of Mineralogy</i> , 2001, 13, 319-327.	0.4	12
50	Experimental evidence of sixfold oxygen coordination for phosphorus. <i>American Mineralogist</i> , 2007, 92, 989-993.	0.9	12
51	Selective transfer of Li-Al-rich phyllosilicate to metamorphic veins (Western Alps): Laser Induced Breakdown Spectroscopy (LIBS) compositional profiles and microstructural characterization. <i>Journal of Geodynamics</i> , 2016, 101, 51-72.	0.7	12
52	Density profiles of pyrolite and MORB compositions across the 660 km seismic discontinuity. <i>High Pressure Research</i> , 2008, 28, 335-349.	0.4	11
53	Confirmation of octahedrally coordinated phosphorus in AlPO ₄ -containing stishovite by ³¹ P NMR. <i>European Journal of Mineralogy</i> , 2009, 21, 667-671.	0.4	11
54	Structural models of random packing of spheres extended to bricks: simulation of the nanoporous calcium silicate hydrates. <i>Molecular Simulation</i> , 2009, 35, 1001-1006.	0.9	11

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55	Magnetic monitoring of hydrothermal magnetite nucleation-and-growth: Record of magnetic reversals. <i>American Mineralogist</i> , 2004, 88, 1385-1389.	0.9	9
56	Effect of incongruent dissolution on mineral solubility data derived from quench experiments. <i>European Journal of Mineralogy</i> , 2007, 19, 783-789.	0.4	8
57	Hydrothermal Valorization of Steel Slagsâ€™Part I: Coupled H2 Production and CO2 Mineral Sequestration. <i>Frontiers in Energy Research</i> , 2017, 5, .	1.2	8
58	Effect of gold and magnetite on the decomposition kinetics of formic acid at 200â€™Â°C under hydrothermal conditions. <i>Chemical Geology</i> , 2019, 507, 1-8.	1.4	8
59	Amphibole genesis in pyroxenites from the Beni Bousera peridotite massif (Rif, Morocco): Evidence for two different metasomatic episodes. <i>Lithos</i> , 2014, 208-209, 67-80.	0.6	7
60	Hydrothermal Steel Slag Valorizationâ€™Part II: Hydrogen and Nano-Magnetite Production. <i>Frontiers in Earth Science</i> , 2017, 5, .	0.8	7
61	Heat capacity of lazulite, MgAl2(PO4)2(OH)2, from 35 to 298 K and a (Sâ€™v) value for P2O5 to estimate phosphate entropy. <i>Mineralogical Magazine</i> , 2004, 68, 123-134.	0.6	6
62	A novel route for FePO4 olivine synthesis from sarcopside oxidation. <i>Solid State Sciences</i> , 2016, 62, 29-33.	1.5	6
63	Role of Defects and Radiation Damage on He Diffusion in Magnetite: Implication for (U-Th)/He Thermochronology. <i>Minerals (Basel, Switzerland)</i> , 2022, 12, 590.	0.8	6
64	Crystal and powder XRD data of Mg3(PO4)2-III: High-temperature and high-pressure form. <i>Powder Diffraction</i> , 1995, 10, 293-295.	0.4	5
65	Thermochemical characterization of Ca4La6(SiO4)6(OH)2 a synthetic La- and OH-analogous of britholite: implication for monazite and LREE apatites stability. <i>Mineralogia</i> , 2008, 39, 41-52.	0.4	5
66	Metamorphic and magmatic overprint of garnet pyroxenites from the Beni Bousera massif (northern) Tj ETQq0 0 0 ggBT /Overlock 10 Tf 0.6		5
67	Polymorphism and thermochemistry of MgAlPO4O, a product of lazulite breakdown at high temperature. <i>European Journal of Mineralogy</i> , 2007, 19, 159-172.	0.4	3
68	Effect of Water Activity on Reaction Kinetics and Intergranular Transport: Insights from the Ca(OH)2â€™+â€™MgCO3â€™ CaCO3â€™+â€™Mg(OH)2Reaction at 1.8â€™GPa. <i>Journal of Petrology</i> , 2016, 57, 1389-1408.	1.1	3
69	Podiform magnetite ore(s) in the Sabzevar ophiolite (NE Iran): oceanic hydrothermal alteration of a chromite deposit. <i>Contributions To Mineralogy and Petrology</i> , 2021, 176, 1.	1.2	3
70	Oxidative decomposition products of synthetic NaFePO4 mariËžite: nano-textural and electrochemical characterization. <i>European Journal of Mineralogy</i> , 2019, 31, 837-842.	0.4	3
71	REE and Hf distribution between pyrope and NaCl-bearing water at eclogitic-facies conditions. <i>European Journal of Mineralogy</i> , 2011, 23, 343-353.	0.4	2
72	Structure of the crust and the lithosphere in the Himalaya-Tibet region and implications on the rheology and eclogitization of the India plate. <i>Himalayan Journal of Sciences</i> , 2008, 5, 65-66.	0.3	1

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73	Fe-Ni-rich Silicate Aggregates Formed after Sulfides in High-pressure Serpentinites. Journal of Petrology, 0, , .	1.1	1
74	Real-time monitoring of aqueous Hg ²⁺ reduction dynamics by magnetite/iron metal composite powders synthesized hydrothermally. Water Science and Technology, 0, , .	1.2	1
75	Aqueous alteration and bioalteration of a synthetic enstatite chondrite. Meteoritics and Planetary Science, 2021, 56, 601-618.	0.7	0