Bruno Reynard

List of Publications by Year in descending order

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RDUNO REVNADO

#	Article	IF	CITATIONS
1	Clumped isotope evidence for Early Jurassic extreme polar warmth and high climate sensitivity. Climate of the Past, 2022, 18, 435-448.	1.3	5
2	3D microstructural study of selachimorph enameloid evolution. Journal of Structural Biology, 2021, 213, 107664.	1.3	4
3	Mo(VI) dithiocarbamate with no pre-existing Mo–S–Mo core as an active lubricant additive. Tribology International, 2021, 154, 106690.	3.0	6
4	Pushing Raman spectroscopy over the edge: purported signatures of organic molecules in fossil animals are instrumental artefacts. BioEssays, 2021, 43, e2000295.	1.2	23
5	Impact glasses from Belize represent tektites from the Pleistocene Pantasma impact crater in Nicaragua. Communications Earth & Environment, 2021, 2, 94.	2.6	14
6	A 650 km2 Miocene strewnfield of splash-form impact glasses in the Atacama Desert, Chile. Earth and Planetary Science Letters, 2021, 569, 117049.	1.8	4
7	A carbonaceous chondrite and cometary origin for icy moons of Jupiter and Saturn. Earth and Planetary Science Letters, 2020, 530, 115920.	1.8	25
8	Interplay between internal stresses and matrix stiffness influences hydrothermal ageing behaviour of zirconia-toughened-alumina. Acta Materialia, 2020, 185, 55-65.	3.8	19
9	New insights into the structure and formation of coals, terrestrial and extraterrestrial kerogens from resonant UV Raman spectroscopy. Geochimica Et Cosmochimica Acta, 2020, 282, 156-176.	1.6	16
10	Porosity of metamorphic rocks and fluid migration within subduction interfaces. Earth and Planetary Science Letters, 2019, 522, 107-117.	1.8	20
11	Pantasma: Evidence for a Pleistocene circa 14Âkm diameter impact crater in Nicaragua. Meteoritics and Planetary Science, 2019, 54, 880-901.	0.7	13
12	High-pressure yield strength of rocksalt structures using quartz Raman piezometry. Comptes Rendus - Geoscience, 2019, 351, 71-79.	0.4	4
13	Multi-scale characterization of the incipient carbonation of peridotite. Chemical Geology, 2018, 476, 150-160.	1.4	29
14	Deuterium‑hydrogen inter-diffusion in chlorite. Chemical Geology, 2018, 493, 518-524.	1.4	5
15	Anharmonic contribution to the stabilization of Mg(OH)2 from first principles. Physical Chemistry Chemical Physics, 2018, 20, 17799-17808.	1.3	10
16	Spark plasma sintering preparation of reference targets for field spectroscopy on Mars. Journal of Raman Spectroscopy, 2018, 49, 1419-1425.	1.2	11
17	D/H diffusion in serpentine. Geochimica Et Cosmochimica Acta, 2017, 211, 355-372.	1.6	9
18	Deep crustal fracture zones control fluid escape and the seismic cycle in the Cascadia subduction zone. Earth and Planetary Science Letters, 2017, 460, 1-11.	1.8	21

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19	A testing protocol combining shocks, hydrothermal ageing and friction, applied to Zirconia Toughened Alumina (ZTA) hip implants. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 65, 600-608.	1.5	28
20	Ageing, Shocks and Wear Mechanisms in ZTA and the Long-Term Performance of Hip Joint Materials. Materials, 2017, 10, 569.	1.3	23
21	Structural changes in perylene from UV Raman spectroscopy up to 1 GPa. Journal of Raman Spectroscopy, 2016, 47, 720-725.	1.2	5
22	Effects of in vitro shocks and hydrothermal degradation on wear of ceramic hip joints: Towards better experimental simulation of in vivo ageing. Tribology International, 2016, 100, 410-419.	3.0	14
23	Mantle hydration and Cl-rich fluids in the subduction forearc. Progress in Earth and Planetary Science, 2016, 3, .	1.1	18
24	Multi-mode conversion imaging of the subducted Gorda and Juan de Fuca plates below the North American continent. Earth and Planetary Science Letters, 2016, 440, 135-146.	1.8	28
25	Plasticity of the dense hydrous magnesium silicate phase A at subduction zones conditions. Physics of the Earth and Planetary Interiors, 2015, 248, 1-11.	0.7	1
26	Carbonate mineralization in percolated olivine aggregates: Linking effects of crystallographic orientation and fluid flow. American Mineralogist, 2015, 100, 474-482.	0.9	30
27	Special issue â€~Geofluid processes in subduction zones and mantle dynamics'. Earth, Planets and Space, 2015, 67, .	0.9	8
28	Tectonic significance of serpentinites. Tectonophysics, 2015, 646, 1-19.	0.9	174
29	Lattice Vibrations and Spectroscopy of Mantle Phases. , 2015, , 203-231.		3
30	Serpentines, talc, chlorites, and their high-pressure phase transitions: a Raman spectroscopic study. Physics and Chemistry of Minerals, 2015, 42, 641-649.	0.3	21
31	Model formation of ZDDP tribofilm from a mixture of zinc metaphosphate and goethite. Tribology International, 2014, 79, 197-203.	3.0	22
32	Pressure-induced Pbca–P21/c phase transition of natural orthoenstatite: The effect of high temperature and its geophysical implications. Physics of the Earth and Planetary Interiors, 2014, 228, 150-159.	0.7	14
33	Measurement of water contents in olivine using Raman spectroscopy. American Mineralogist, 2014, 99, 149-156.	0.9	24
34	Deformation mechanisms and rheology of serpentines in experiments and in nature. Journal of Geophysical Research: Solid Earth, 2014, 119, 4640-4655.	1.4	49
35	Trace elements and their isotopes in bones and teeth: Diet, environments, diagenesis, and dating of archeological and paleontological samples. Palaeogeography, Palaeoclimatology, Palaeoecology, 2014, 416, 4-16.	1.0	91
36	Elasticity of lawsonite and seismological signature of metamorphism and water cycling in the subducting oceanic crust. Journal of Metamorphic Geology, 2014, 32, 479-487.	1.6	16

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37	Degradation of alumina and zirconia toughened alumina (ZTA) hip prostheses tested under microseparation conditions in a shock device. Tribology International, 2013, 63, 151-157.	3.0	14
38	Raman spectroscopic properties and Raman identification of CaSâ€MgSâ€MnSâ€FeSâ€Cr ₂ FeS ₄ sulfides in meteorites and reduced sulfurâ€rich systems. Meteoritics and Planetary Science, 2013, 48, 1415-1426.	0.7	68
39	Structural Changes in Tribo-Stressed Zinc Polyphosphates. Tribology Letters, 2013, 51, 489-498.	1.2	31
40	Anharmonicity of graphite from UV Raman spectroscopy to 2700K. Carbon, 2013, 54, 68-75.	5.4	18
41	Serpentine in active subduction zones. Lithos, 2013, 178, 171-185.	0.6	179
42	Pressure–temperature estimates of the lizardite/antigorite transition in high pressure serpentinites. Lithos, 2013, 178, 197-210.	0.6	238
43	Highâ€pressure elasticity of serpentine and seismic properties of the hydrated mantle wedge. Journal of Geophysical Research: Solid Earth, 2013, 118, 527-535.	1.4	44
44	Pressure-induced Pbca-P21/c phase transition of natural orthoenstatite: Compositional effect and its geophysical implications. American Mineralogist, 2013, 98, 986-992.	0.9	15
45	Carbon and oxygen isotope fractionations between aragonite and calcite of shells from modern molluscs. Chemical Geology, 2012, 332-333, 92-101.	1.4	48
46	Stable carbon and oxygen isotope compositions of invertebrate carbonate shells and the reconstruction of paleotemperatures and paleosalinities—A case study of the early Pleistocene of Rhodes, Greece. Palaeogeography, Palaeoclimatology, Palaeoecology, 2012, 350-352, 39-48.	1.0	11
47	Creep of phyllosilicates at the onset of plate tectonics. Earth and Planetary Science Letters, 2012, 345-348, 142-150.	1.8	59
48	Electrical conductivity of the serpentinised mantle and fluid flow in subduction zones. Earth and Planetary Science Letters, 2011, 307, 387-394.	1.8	100
49	Early Archean serpentine mud volcanoes at Isua, Greenland, as a niche for early life. Proceedings of the United States of America, 2011, 108, 17639-17643.	3.3	90
50	Elasticity of glaucophane, seismic velocities and anisotropy of the subducted oceanic crust. Tectonophysics, 2010, 494, 201-210.	0.9	67
51	High-temperature elastic softening of orthopyroxene and seismic properties of the lithospheric upper mantle. Geophysical Journal International, 2010, 181, 557-566.	1.0	12
52	Electron backâ€scattering diffraction (EBSD) measurements of antigorite latticeâ€preferred orientations (LPO). Journal of Microscopy, 2010, 239, 245-248.	0.8	27
53	Earthquakes and plastic deformation of anhydrous slab mantle in double Wadatiâ€Benioff zones. Geophysical Research Letters, 2010, 37, .	1.5	48
54	Elasticity of antigorite, seismic detection of serpentinites, and anisotropy in subduction zones. Earth and Planetary Science Letters, 2010, 289, 198-208.	1.8	147

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55	Graphitic carbon nitride C6N9H3·HCl: Characterisation by UV and near-IR FT Raman spectroscopy. Journal of Solid State Chemistry, 2009, 182, 2670-2677.	1.4	80
56	Precursor and metamorphic condition effects on Raman spectra of poorly ordered carbonaceous matter in chondrites and coals. Earth and Planetary Science Letters, 2009, 287, 185-193.	1.8	113
57	D/H isotopic fractionation between brucite Mg(OH)2 and water from first-principles vibrational modeling. Chemical Geology, 2009, 262, 159-168.	1.4	37
58	Stability and dynamics of serpentinite layer in subduction zone. Tectonophysics, 2009, 465, 24-29.	0.9	68
59	Boundary Lubrication by Pure Crystalline Zinc Orthophosphate Powder in Oil. Tribology Letters, 2008, 31, 139-148.	1.2	14
60	Rapid identification of steatite–enstatite polymorphs at various temperatures. Journal of the European Ceramic Society, 2008, 28, 2459-2462.	2.8	28
61	New experimental constraints on the composition and structure of tholins. Icarus, 2008, 198, 218-231.	1.1	144
62	Secondary ionization mass spectrometry imaging of dilute stable strontium labeling in dentin and enamel. Bone, 2008, 42, 229-234.	1.4	14
63	Akimotoite in the Tenham meteorite: Crystal chemistry and high-pressure transformation mechanisms. Earth and Planetary Science Letters, 2008, 275, 26-31.	1.8	33
64	Analysis of coupled Sr/Ca and 87Sr/86Sr variations in enamel using laser-ablation tandem quadrupole-multicollector ICPMS. Geochimica Et Cosmochimica Acta, 2008, 72, 3980-3990.	1.6	32
65	Tholins and their relevance for astrophysical issues. Proceedings of the International Astronomical Union, 2008, 4, 409-416.	0.0	4
66	Study of inorganic fullerenes and carbon nanotubes by in situ Raman tribometry. Applied Physics Letters, 2007, 91, 153107.	1.5	18
67	High-Pressure Creep of Serpentine, Interseismic Deformation, and Initiation of Subduction. Science, 2007, 318, 1910-1913.	6.0	331
68	Shock-induced metallic iron nanoparticles in olivine-rich Martian meteorites. Earth and Planetary Science Letters, 2007, 262, 37-49.	1.8	53
69	Shock-induced transformation of olivine to a new metastable (Mg,Fe)2SiO4 polymorph in Martian meteorites. Earth and Planetary Science Letters, 2007, 261, 469-475.	1.8	36
70	Zinc phosphate chain length study under high hydrostatic pressure by Raman spectroscopy. Journal of Applied Physics, 2007, 101, 063505.	1.1	27
71	Elasticity of serpentines and extensive serpentinization in subduction zones. Geophysical Research Letters, 2007, 34, .	1.5	42
72	Equation of state of antigorite, stability field of serpentines, and seismicity in subduction zones. Geophysical Research Letters, 2006, 33, .	1.5	62

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73	Magnetite-like nanocrystals formed by laser-driven shocks in siderite. Earth and Planetary Science Letters, 2006, 243, 820-827.	1.8	22
74	Petrography and geochemistry of the chassignite Northwest Africa 2737 (NWA 2737). Geochimica Et Cosmochimica Acta, 2006, 70, 2127-2139.	1.6	78
75	Quantification of water content and speciation in natural silicic glasses (phonolite, dacite, rhyolite) by confocal microRaman spectrometry. Geochimica Et Cosmochimica Acta, 2006, 70, 2868-2884.	1.6	84
76	Reflectance spectra and chemical structure of Titan's tholins: Application to the analysis of Cassini–Huygens observations. Icarus, 2006, 185, 301-307.	1.1	84
77	An extended field of crater-shaped structures in the Gilf Kebir region, Egypt: Observations and hypotheses about their origin. Journal of African Earth Sciences, 2006, 46, 281-299.	0.9	32
78	P–V Equations of State and the relative stabilities of serpentine varieties. Physics and Chemistry of Minerals, 2006, 33, 629-637.	0.3	45
79	High-pressure behavior of synthetic antigorite in the MgO-SiO2-H2O system from Raman spectroscopy. American Mineralogist, 2006, 91, 459-462.	0.9	27
80	Pressure-induced exfoliation of inorganic fullerene-like WS2 particles in a Hertzian contact. Journal of Applied Physics, 2006, 99, 023524.	1.1	86
81	Analysis of molecular oxygen formation in irradiated glasses: a Raman depth profile study. Journal of Nuclear Materials, 2005, 340, 209-213.	1.3	52
82	Silica as a shock index in shergottites: A cathodoluminescence study. Meteoritics and Planetary Science, 2005, 40, 967-979.	0.7	18
83	Boron isotopic fractionation between minerals and fluids: New insights from in situ high pressure-high temperature vibrational spectroscopic data. Geochimica Et Cosmochimica Acta, 2005, 69, 4301-4313.	1.6	57
84	Kinetics of antigorite dehydration: A real-time X-ray diffraction study. Earth and Planetary Science Letters, 2005, 236, 899-913.	1.8	112
85	Determination of trace element partition coefficients between water and minerals by high-pressure and high-temperature experiments: Leaching technique. Geochemistry, Geophysics, Geosystems, 2005, 6, n/a-n/a.	1.0	6
86	Progress in quantitative elemental analyses in highP–Tfluids using synchrotron x-ray fluorescence (SXRF). Journal of Physics Condensed Matter, 2004, 16, S1197-S1206.	0.7	8
87	β irradiation in borosilicate glasses: the role of the mixed alkali effect. Nuclear Instruments & Methods in Physics Research B, 2004, 218, 176-182.	0.6	49
88	High-pressure behaviour of serpentine minerals: a Raman spectroscopic study. Physics and Chemistry of Minerals, 2004, 31, 269-277.	0.3	176
89	Rare earth element evolution of Phanerozoic seawater recorded in biogenic apatites. Chemical Geology, 2004, 204, 63-102.	1.4	152
90	Can crystallinity be used to determine the degree of chemical alteration of biogenic apatites?. Chemical Geology, 2004, 205, 83-97.	1.4	182

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91	Stable isotope fractionation between mollusc shells and marine waters from Martinique Island. Chemical Geology, 2004, 213, 293-305.	1.4	79
92	High-pressure and high-temperature Raman spectroscopy of carbonate ions in aqueous solution. Chemical Geology, 2004, 207, 47-58.	1.4	51
93	Discovery of the largest impact crater field on Earth in the Gilf Kebir region, Egypt. Comptes Rendus - Geoscience, 2004, 336, 1491-1500.	0.4	36
94	Discovery of a double impact crater in Libya: the astrobleme of Arkenu. Comptes Rendus - Geoscience, 2003, 335, 1059-1069.	0.4	33
95	Raman spectroscopy study of β-irradiated silica glass. Journal of Non-Crystalline Solids, 2003, 325, 22-28.	1.5	60
96	Raman spectroscopic study of garnet inclusions in diamonds from the mantle transition zone. American Mineralogist, 2002, 87, 312-317.	0.9	34
97	Raman spectra of ilmenite-type phases on the Mg4Si4O12-Mg3Al2Si3O12 join. European Journal of Mineralogy, 2002, 14, 745-747.	0.4	1
98	Optimization of Sm3+ fluorescence in Sm-doped yttrium aluminum garnet: Application to pressure calibration in diamond-anvil cell at high temperature. Journal of Applied Physics, 2002, 92, 4349-4353.	1.1	27
99	11B/10B analysis of geological materials by ICP–MS Plasma 54: Application to the boron fractionation between brachiopod calcite and seawater. Chemical Geology, 2002, 186, 45-55.	1.4	101
100	Micro-Raman and EPR studies of β-radiation damages in aluminosilicate glass. Nuclear Instruments & Methods in Physics Research B, 2002, 191, 337-341.	0.6	25
101	Evolution of nuclear glass structure under α-irradiation. Nuclear Instruments & Methods in Physics Research B, 2000, 166-167, 445-450.	0.6	48
102	Migration and segregation of sodium under \hat{l}^2 -irradiation in nuclear glasses. Nuclear Instruments & Methods in Physics Research B, 2000, 166-167, 500-504.	0.6	59
103	A high-temperature and high-pressure Raman spectroscopic study of CaGeO 3 garnet. Physics and Chemistry of Minerals, 2000, 27, 213-219.	0.3	8
104	Temperature and time-dependent changes of structure in phosphorus containing aluminosilicate liquids and glasses: in situ Raman spectroscopy at high temperature. Journal of Non-Crystalline Solids, 2000, 263-264, 123-131.	1.5	20
105	Equations of state of12Cand13Cdiamond. Physical Review B, 1999, 60, 14660-14664.	1.1	51
106	A Raman spectroscopic study of shock-wave densification of vitreous silica. Physics and Chemistry of Minerals, 1999, 26, 304-311.	0.3	87
107	A Raman spectroscopic study of shock-wave densification of anorthite (CaAl 2 Si 2 O 8) glass. Physics and Chemistry of Minerals, 1999, 26, 432-436.	0.3	36
108	Crystal-chemical controls on rare-earth element concentrations in fossil biogenic apatites and implications for paleoenvironmental reconstructions. Chemical Geology, 1999, 155, 233-241.	1.4	336

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109	Hydrothermalism and diapirism in the Archean: gravitational instability constraints. Tectonophysics, 1999, 304, 29-39.	0.9	21
110	Raman study of \hat{I}^2 -irradiated glasses. Journal of Non-Crystalline Solids, 1999, 243, 268-272.	1.5	94
111	High-pressure equation of state of magnesite; new data and a reappraisal. American Mineralogist, 1999, 84, 856-860.	0.9	39
112	The effect of iron on the P21lc to C2/c transition in (Mg,Fe)SiO3 clinopyroxenes. European Journal of Mineralogy, 1999, 11, 585-590.	0.4	49
113	Symmetry and disorder in garnets on the pyrope (Mg3Al2Si3O12)-majorite (Mg4Si4O12) join from Cr3+luminescence spectroscopy. Geophysical Research Letters, 1998, 25, 195-198.	1.5	2
114	High-temperature Raman spectroscopy of Na2TiSi2O7 glass and melt: coordination of Ti4+ and nature of the configurational changes in the liquid. European Journal of Mineralogy, 1998, 10, 49-58.	0.4	41
115	High-pressure Raman spectroscopic study of Mn 2 GeO 4 , Ca 2 GeO 4 , Ca 2 SiO 4 , and CaMgGeO 4 olivines. Physics and Chemistry of Minerals, 1997, 24, 77-84.	0.3	26
116	Raman Spectroscopic Investigations of Dicalcium Silicate: Polymorphs and Highâ€Temperature Phase Transformations. Journal of the American Ceramic Society, 1997, 80, 413-423.	1.9	58
117	Orthopyroxene-andalusite symplectites replacing cordierite in granulites from the Strangways Range (Arunta block, central Australia): A new twist to the pressure-temperature history. Geology, 1997, 25, 215.	2.0	18
118	High-pressure luminescence spectroscopy of transition elements: experimental setup and preliminary results on Cr3+ in silicate glasses. Chemical Geology, 1996, 128, 65-75.	1.4	14
119	High-temperature alteration of oceanic gabbros by seawater (Hess Deep, Ocean Drilling Program Leg) Tj ETQq1 I 15883-15897.	1 0.784314 3.3	4 rgBT /Overl 46
120	High-pressure, high-temperature Raman spectroscopic study of ilmenite-type MgSiO ₃ . American Mineralogist, 1996, 81, 1092-1096.	0.9	42
121	High-temperature Raman spectroscopic and X-ray diffraction study of beta -Mg ₂ SiO ₄ ; insights into its high-temperature thermodynamic properties and the beta - to alpha -phase-transition mechanism and kinetics. American Mineralogist, 1996, 81, 585-594.	0.9	31
122	High-pressure X-ray diffraction study and equation of state of MgSiO ₃ ilmenite. American Mineralogist, 1996, 81, 45-50.	0.9	37
123	High-temperature properties of geikielite (MgTiO3-ilmenite) from high-temperature high-pressure Raman spectroscopy ? Some implications for MgSiO3-ilmenite. Physics and Chemistry of Minerals, 1994, 21, 441.	0.3	55
124	Pressure-induced structural modifications in Mg2GeO4-olivine: A Raman spectroscopic study. Physics and Chemistry of Minerals, 1994, 20, 556-562.	0.3	22
125	A study of SiO2 glass and supercooled liquid to 1950 K via high-temperature Raman spectroscopy. Geochimica Et Cosmochimica Acta, 1994, 58, 3653-3664.	1.6	229
126	Raman spectroscopic studies of carbonates part I: High-pressure and high-temperature behaviour of calcite, magnesite, dolomite and aragonite. Physics and Chemistry of Minerals, 1993, 20, 1.	0.3	160

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127	Experimental evidence for carbonate stability in the Earth's lower mantle. Earth and Planetary Science Letters, 1993, 118, 31-41.	1.8	158
128	Raman spectroscopy at mantle pressure and temperature conditions experimental setâ€up and the example of CaTiO ₃ perovskite. Geophysical Research Letters, 1993, 20, 1931-1934.	1.5	31
129	High pressure structural study of MnGeO3 ilmenite. Zeitschrift Fur Kristallographie - Crystalline Materials, 1993, 204, .	0.4	2
130	Infrared reflectivity of \hat{I}^3 -(spinel)Ni2SiO4. European Journal of Mineralogy, 1993, 5, 31-36.	0.4	5
131	High-pressure stability of carbonates: quenching of calcite-II, high-pressure polymorph of CaCO3. European Journal of Mineralogy, 1993, 5, 503-510.	0.4	17
132	Thermodynamic and anharmonic properties of forsterite, αâ€Mg ₂ SiO ₄ : Computer modelling versus highâ€pressure and highâ€ŧemperature measurements. Journal of Geophysical Research, 1992, 97, 19791-19801.	3.3	17
133	Pressure-induced structural modifications and amorphization in olivine compounds. Chemical Geology, 1992, 96, 411-420.	1.4	51
134	Structure of high-pressure MnGeO3 ilmenite. Acta Crystallographica Section C: Crystal Structure Communications, 1991, 47, 1794-1796.	0.4	1
135	Single-crystal infrared reflectivity of pure Mg2SiO2 forsterite and (Mg0.86,Fe0.14)2SiO4 olivine. Physics and Chemistry of Minerals, 1991, 18, 19.	0.3	31
136	On the entropy of glaucophane Na2Mg3Al2Si8O22(OH)2. Contributions To Mineralogy and Petrology, 1991, 107, 484-486.	1.2	7
137	Thermal expansion of mantle minerals at high pressures—A theoretical study. Geophysical Research Letters, 1990, 17, 689-692.	1.5	36
138	Thermodynamic properties of glaucophane new data from calorimetric and spectroscopic measurements. Physics and Chemistry of Minerals, 1989, 16, 659.	0.3	28
139	Deformation mechanisms in naturally deformed glaucophanes: a TEM and HREM study. European Journal of Mineralogy, 1989, 1, 611-624.	0.4	33
140	Coexisting amphiboles in an eclogite from the Western Alps: new constraints on the miscibility gap between sodic and calcic amphiboles. Journal of Metamorphic Geology, 1988, 6, 333-350.	1.6	40
141	Raman spectroscopy at high pressure and temperature for the study of the Earth's mantle and planetary minerals. , 0, , 367-390.		4