

# Primary carbonatite melt from deeply subducted ocean

Nature

454, 622-625

DOI: [10.1038/nature07132](https://doi.org/10.1038/nature07132)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Carbon in Charge. <i>Science</i> , 2008, 322, 1338-1340.	6.0	5
2	Deep mantle diamonds from South Australia: A record of Pacific subduction at the Gondwanan margin. <i>Geology</i> , 2009, 37, 43-46.	2.0	55
3	Unusual micro- and nano-inclusions in diamonds from the Juina Area, Brazil. <i>Earth and Planetary Science Letters</i> , 2009, 286, 292-303.	1.8	82
4	Solidus of carbonated peridotite from 10 to 20 GPa and origin of magnesiocarbonatite melt in the Earth's deep mantle. <i>Chemical Geology</i> , 2009, 262, 17-28.	1.4	125
5	Trace element partitioning between carbonatitic melts and mantle transition zone minerals: Implications for the source of carbonatites. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 239-255.	1.6	54
6	Siberian meimechites: origin and relation to flood basalts and kimberlites. <i>Russian Geology and Geophysics</i> , 2009, 50, 999-1033.	0.3	121
7	Solidus and phase relations of carbonated peridotite in the system $\text{CaO}-\text{Al}_2\text{O}_3-\text{MgO}-\text{SiO}_2-\text{Na}_2\text{O}-\text{CO}_2$ to the lower mantle depths. <i>Physics of the Earth and Planetary Interiors</i> , 2009, 177, 46-58.	0.7	90
8	Stagnant lid convection and carbonate metasomatism of the deep continental lithosphere. <i>Geochemistry, Geophysics, Geosystems</i> , 2009, 10, .	1.0	46
9	Nyerereite and nahcolite inclusions in diamond: evidence for lower-mantle carbonatitic magmas. <i>Mineralogical Magazine</i> , 2009, 73, 797-816.	0.6	118
10	Mineral inclusions in sublithospheric diamonds from Collier 4 kimberlite pipe, Juina, Brazil: subducted protoliths, carbonated melts and primary kimberlite magmatism. <i>Contributions To Mineralogy and Petrology</i> , 2010, 160, 489-510.	1.2	165
11	Kimberlitic sources of super-deep diamonds in the Juina area, Mato Grosso State, Brazil. <i>Lithos</i> , 2010, 114, 16-29.	0.6	27
12	Compositionally stratified lithosphere and carbonatite metasomatism recorded in mantle xenoliths from the Western Qinling (Central China). <i>Lithos</i> , 2010, 116, 111-128.	0.6	44
13	Geochemical and Sr-Nd isotopic characteristics and pressure-temperature estimates of mantle xenoliths from the French Massif Central: evidence for melting and multiple metasomatism by silicate-rich carbonatite and asthenospheric melts. <i>Geological Society Special Publication</i> , 2010, 337, 153-175.	0.8	10
14	Partitioning of trace elements between garnet, clinopyroxene and diamond-forming carbonate-silicate melt at 7 GPa. <i>Mineralogical Magazine</i> , 2010, 74, 227-239.	0.6	14
15	Petrogenesis of Davidson Seamount lavas and its implications for fossil spreading center and intraplate magmatism in the eastern Pacific. <i>Geochemistry, Geophysics, Geosystems</i> , 2010, 11, .	1.0	43
16	Low solubility of He and Ar in carbonatitic liquids: Implications for decoupling noble gas and lithophile isotope systems. <i>Geochimica Et Cosmochimica Acta</i> , 2010, 74, 1672-1683.	1.6	13
17	Noble gas and carbon isotopic signatures of Cape Verde oceanic carbonatites: Implications for carbon provenance. <i>Earth and Planetary Science Letters</i> , 2010, 291, 70-83.	1.8	41
18	The solidus of carbonated eclogite in the system $\text{CaO}-\text{Al}_2\text{O}_3-\text{MgO}-\text{SiO}_2-\text{Na}_2\text{O}-\text{CO}_2$ to 32 GPa and carbonatite liquid in the deep mantle. <i>Earth and Planetary Science Letters</i> , 2010, 295, 115-126.	1.8	99

#	ARTICLE	IF	CITATIONS
19	The deep carbon cycle and melting in Earth's interior. <i>Earth and Planetary Science Letters</i> , 2010, 298, 1-13.	1.8	772
20	Origin of HIMU and EM-1 domains sampled by ocean island basalts, kimberlites and carbonatites: The role of CO <sub>2</sub> -fluxed lower mantle melting in thermochemical upwellings. <i>Physics of the Earth and Planetary Interiors</i> , 2010, 181, 112-131.	0.7	79
21	Experimentally dictated stability of carbonated oceanic crust to moderately great depths in the Earth: Results from the solidus determination in the system CaO-MgO-Al <sub>2</sub> O <sub>3</sub> -SiO <sub>2</sub> -CO <sub>2</sub> . <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	32
22	Diamond formation in the deep mantle: the record of mineral inclusions and their distribution in relation to mantle dehydration zones. <i>Mineralogical Magazine</i> , 2010, 74, 189-215.	0.6	191
23	The stability of magnesite in the transition zone and the lower mantle as function of oxygen fugacity. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	1.5	67
24	Identification of Source Lithology in the Hawaiian and Canary Islands: Implications for Origins. <i>Journal of Petrology</i> , 2011, 52, 113-146.	1.1	422
25	Crossover from melting to dissociation of CO <sub>2</sub> under pressure: Implications for the lower mantle. <i>Earth and Planetary Science Letters</i> , 2011, 309, 318-323.	1.8	78
26	Deep Mantle Cycling of Oceanic Crust: Evidence from Diamonds and Their Mineral Inclusions. <i>Science</i> , 2011, 334, 54-57.	6.0	294
27	Physicochemical conditions for melting in the Earth's mantle containing a CaO-H fluid (from Tj ETQq0 0 0 rgBT /Overlock 10 T	0.5	93
28	Melting Phase Relations of Simplified Carbonated Peridotite at 12-26 GPa in the Systems CaO-MgO-SiO <sub>2</sub> -CO <sub>2</sub> and CaO-MgO-Al <sub>2</sub> O <sub>3</sub> -SiO <sub>2</sub> -CO <sub>2</sub> : Highly Calcic Magmas in the Transition Zone of the Earth. <i>Journal of Petrology</i> , 2011, 52, 2265-2291.	1.1	29
29	In situ determination of U-Pb ages and Sr-Nd-Hf isotopic constraints on the petrogenesis of the Phalaborwa carbonatite Complex, South Africa. <i>Lithos</i> , 2011, 127, 309-322.	0.6	96
30	Melting of carbonated pelites at 8-13 GPa: generating K-rich carbonatites for mantle metasomatism. <i>Contributions To Mineralogy and Petrology</i> , 2011, 162, 169-191.	1.2	97
31	Tetragonal almandine pyrope phase (TAPP): retrograde Mg-perovskite from subducted oceanic crust?. <i>European Journal of Mineralogy</i> , 2012, 24, 587-597.	0.4	22
32	Metasomatized Lithospheric Mantle beneath the Western Qinling, Central China: Insight into Carbonatite Melts in the Mantle. <i>Journal of Geology</i> , 2012, 120, 671-681.	0.7	15
33	Deep carbon cycle and geodynamics: the role of the core and carbonatite melts in the lower mantle. <i>Russian Geology and Geophysics</i> , 2012, 53, 1117-1132.	0.3	35
34	Beamline 12.2.2: An Extreme Conditions Beamline at the Advanced Light Source. <i>Synchrotron Radiation News</i> , 2012, 25, 10-11.	0.2	7
35	Extremely high Li and low <sup>7</sup> Li signatures in the lithospheric mantle. <i>Chemical Geology</i> , 2012, 292-293, 149-157.	1.4	37
36	Nephelinite-melilitite-carbonatite relationships: Evidence from Pleistocene-recent volcanism in northern Tanzania. <i>Lithos</i> , 2012, 152, 3-10.	0.6	25

#	ARTICLE	IF	CITATIONS
37	Trace element partitioning between majoritic garnet and silicate melt at 10–17 GPa: Implications for deep mantle processes. <i>Lithos</i> , 2012, 148, 128-141.	0.6	36
38	Mineral inclusions in diamonds track the evolution of a Mesozoic subducted slab beneath West Gondwanaland. <i>Gondwana Research</i> , 2012, 21, 236-245.	3.0	57
39	Carbon Mineralogy and Crystal Chemistry. <i>Reviews in Mineralogy and Geochemistry</i> , 2013, 75, 7-46.	2.2	91
40	Geochemical diversity in submarine HIMU basalts from Austral Islands, French Polynesia. <i>Contributions To Mineralogy and Petrology</i> , 2013, 166, 1285-1304.	1.2	16
41	Mantle–slab interaction and redox mechanism of diamond formation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 20408-20413.	3.3	163
42	New experimental data on phase relations for the system Na <sub>2</sub> CO <sub>3</sub> -CaCO <sub>3</sub> at 6 GPa and 900-1400 °C. <i>American Mineralogist</i> , 2013, 98, 2164-2171.	0.9	42
43	Silicate diffusion in alkali-carbonatite and hydrous melts at 16.5 and 24 GPa: Implication for the melt transport by dissolution–precipitation in the transition zone and uppermost lower mantle. <i>Physics of the Earth and Planetary Interiors</i> , 2013, 225, 1-11.	0.7	30
44	Ferric iron content of ferropericlasite as a function of composition, oxygen fugacity, temperature and pressure: Implications for redox conditions during diamond formation in the lower mantle. <i>Earth and Planetary Science Letters</i> , 2013, 365, 7-16.	1.8	26
45	Diamonds and the Geology of Mantle Carbon. <i>Reviews in Mineralogy and Geochemistry</i> , 2013, 75, 355-421.	2.2	360
46	Carbonate Melts and Carbonatites. <i>Reviews in Mineralogy and Geochemistry</i> , 2013, 75, 289-322.	2.2	245
47	Diamond-forming fluids in fibrous diamonds: The trace-element perspective. <i>Earth and Planetary Science Letters</i> , 2013, 376, 110-125.	1.8	49
49	Mantle transition zone input to kimberlite magmatism near a subduction zone: Origin of anomalous Nd–Hf isotope systematics at Lac de Gras, Canada. <i>Earth and Planetary Science Letters</i> , 2013, 371-372, 235-251.	1.8	111
50	Metapyroxenite in the mantle transition zone revealed from majorite inclusions in diamonds. <i>Geology</i> , 2013, 41, 883-886.	2.0	38
51	Solidus of alkaline carbonatite in the deep mantle. <i>Geology</i> , 2013, 41, 79-82.	2.0	142
52	Origin of sub-lithospheric diamonds from the Juina-5 kimberlite (Brazil): constraints from carbon isotopes and inclusion compositions. <i>Contributions To Mineralogy and Petrology</i> , 2014, 168, 1.	1.2	87
53	Recent Advances in Understanding the Geology of Diamonds. <i>Gems &amp; Gemology</i> , 2014, 49, 188-222.	0.4	24
54	Methodology toward 3D Micro X-ray Fluorescence Imaging Using an Energy Dispersive Charge-Coupled Device Detector. <i>Analytical Chemistry</i> , 2014, 86, 11826-11832.	3.2	36
55	THE ROLE OF CARBON IN EXTRASOLAR PLANETARY GEODYNAMICS AND HABITABILITY. <i>Astrophysical Journal</i> , 2014, 793, 124.	1.6	59

#	ARTICLE	IF	CITATIONS
56	Merwinite in diamond from Sao Luiz, Brazil: A new mineral of the Ca-rich mantle environment. <i>American Mineralogist</i> , 2014, 99, 547-550.	0.9	38
57	Accretionary complexes in the Asia-Pacific region: Tracing archives of ocean plate stratigraphy and tracking mantle plumes. <i>Gondwana Research</i> , 2014, 25, 126-158.	3.0	418
58	Phase relations and melting of carbonated peridotite between 10 and 20 GPa: a proxy for alkali- and CO <sub>2</sub> -rich silicate melts in the deep mantle. <i>Contributions To Mineralogy and Petrology</i> , 2014, 167, 1.	1.2	66
59	Origin of carbonatites in the South Qinling orogen: Implications for crustal recycling and timing of collision between the South and North China Blocks. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 143, 189-206.	1.6	78
60	Phase relations in the system FeCO <sub>3</sub> -CaCO <sub>3</sub> at 6 GPa and 900-1700 °C and its relation to the system CaCO <sub>3</sub> -FeCO <sub>3</sub> -MgCO <sub>3</sub> . <i>American Mineralogist</i> , 2014, 99, 773-785.	0.9	38
61	Geochemistry of primary-carbonate bearing K-rich igneous rocks in the Awulale Mountains, western Tianshan: Implications for carbon-recycling in subduction zone. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 143, 143-164.	1.6	28
62	Local variations of carbon isotope composition in diamonds from São-Luis (Brazil): Evidence for heterogenous carbon reservoir in sublithospheric mantle. <i>Chemical Geology</i> , 2014, 363, 114-124.	1.4	74
63	The Composition of Hydrous Partial Melts of Garnet Peridotite at 6 GPa: Implications for the Origin of Group II Kimberlites. <i>Journal of Petrology</i> , 2014, 55, 2097-2124.	1.1	27
64	Continent-scale linearity of kimberlite-carbonatite magmatism, mid-continent North America. <i>Earth and Planetary Science Letters</i> , 2014, 403, 1-14.	1.8	25
65	Structure, equation of state and transport properties of molten calcium carbonate (CaCO <sub>3</sub> ) by atomistic simulations. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 141, 547-566.	1.6	56
66	The magmatic activity mechanism of the fossil spreading center in the Southwest sub-basin, South China Sea. <i>Science China Earth Sciences</i> , 2014, 57, 1653-1663.	2.3	4
67	On origin of lower-mantle diamonds and their primary inclusions. <i>Physics of the Earth and Planetary Interiors</i> , 2014, 228, 176-185.	0.7	27
68	Stable isotope (C, O, S) compositions of volatile-rich minerals in kimberlites: A review. <i>Chemical Geology</i> , 2014, 374-375, 61-83.	1.4	81
69	Isotopic constraints on the nature and circulation of deep mantle C-H-O-N fluids: Carbon and nitrogen systematics within ultra-deep diamonds from Kankan (Guinea). <i>Geochimica Et Cosmochimica Acta</i> , 2014, 139, 26-46.	1.6	42
70	The stability of Fe-Ni carbides in the Earth's mantle: Evidence for a low Fe-Ni-C melt fraction in the deep mantle. <i>Earth and Planetary Science Letters</i> , 2014, 388, 211-221.	1.8	62
71	Diamond Formation: A Stable Isotope Perspective. <i>Annual Review of Earth and Planetary Sciences</i> , 2014, 42, 699-732.	4.6	130
72	Phase relations in the K <sub>2</sub> CO <sub>3</sub> -FeCO <sub>3</sub> and MgCO <sub>3</sub> -FeCO <sub>3</sub> systems at 6 GPa and 900-1700 °C. <i>European Journal of Mineralogy</i> , 2015, 27, 487-499.	0.4	15
73	Melting in the mantle in the presence of carbon: Review of experiments and discussion on the origin of carbonatites. <i>Chemical Geology</i> , 2015, 418, 171-188.	1.4	115

#	ARTICLE	IF	CITATIONS
74	Carbon dioxide in silicate melts at upper mantle conditions: Insights from atomistic simulations. <i>Chemical Geology</i> , 2015, 418, 77-88.	1.4	29
75	The oxygen fugacity at which graphite or diamond forms from carbonate-bearing melts in eclogitic rocks. <i>Contributions To Mineralogy and Petrology</i> , 2015, 169, 1.	1.2	96
76	Fe-Ni-Cu-C-S phase relations at high pressures and temperatures – The role of sulfur in carbon storage and diamond stability at mid- to deep-upper mantle. <i>Earth and Planetary Science Letters</i> , 2015, 412, 132-142.	1.8	52
77	Formation of carbonatite-related giant rare-earth-element deposits by the recycling of marine sediments. <i>Scientific Reports</i> , 2015, 5, 10231.	1.6	113
78	Evolution of Mojavian mantle lithosphere influenced by Farallon plate subduction: Evidence from Hf and Nd isotopes in peridotite xenoliths from Dish Hill, CA. <i>Geochimica Et Cosmochimica Acta</i> , 2015, 159, 264-284.	1.6	9
79	Interface partition coefficients of trace elements in carbonate-silicate parental media for diamonds and paragenetic inclusions (experiments at 7.0-8.5 GPa). <i>Russian Geology and Geophysics</i> , 2015, 56, 221-231.	0.3	7
80	Evidence for phase transitions in mineral inclusions in superdeep diamonds of the São Luiz deposit (Brazil). <i>Russian Geology and Geophysics</i> , 2015, 56, 296-305.	0.3	30
81	Carbonatite metasomatism of peridotite lithospheric mantle: implications for diamond formation and carbonatite-kimberlite magmatism. <i>Russian Geology and Geophysics</i> , 2015, 56, 280-295.	0.3	53
82	The role of rocks saturated with metallic iron in the formation of ferric carbonate-silicate melts: experimental modeling under PT-conditions of lithospheric mantle. <i>Russian Geology and Geophysics</i> , 2015, 56, 143-154.	0.3	18
83	Effects of temperature, pressure and chemical compositions on the electrical conductivity of carbonated melts and its relationship with viscosity. <i>Chemical Geology</i> , 2015, 418, 189-197.	1.4	31
84	The recycling of marine carbonates and sources of HIMU and FOZO ocean island basalts. <i>Lithos</i> , 2015, 216-217, 254-263.	0.6	86
85	Origin of unusual HREE-Mo-rich carbonatites in the Qinling orogen, China. <i>Scientific Reports</i> , 2016, 6, 37377.	1.6	60
86	A petrological assessment of diamond as a recorder of the mantle nitrogen cycle. <i>American Mineralogist</i> , 2016, 101, 780-787.	0.9	26
87	Trace element composition of silicate inclusions in sub-lithospheric diamonds from the Juina-5 kimberlite: Evidence for diamond growth from slab melts. <i>Lithos</i> , 2016, 265, 108-124.	0.6	34
88	Depth of formation of CaSiO <sub>3</sub> -walsstromite included in super-deep diamonds. <i>Lithos</i> , 2016, 265, 138-147.	0.6	55
89	Diamonds from Dachine, French Guiana: A unique record of early Proterozoic subduction. <i>Lithos</i> , 2016, 265, 82-95.	0.6	26
90	The development of synchrotron X-ray diffraction at Daresbury Laboratory and its legacy for materials imaging. <i>Journal of Non-Crystalline Solids</i> , 2016, 451, 2-9.	1.5	6
91	Mineralogical characterization of diamonds from Roosevelt Indigenous Reserve, Brazil, using non-destructive methods. <i>Lithos</i> , 2016, 265, 182-198.	0.6	3

#	ARTICLE	IF	CITATIONS
92	The CaCO <sub>3</sub> -Fe interaction: Kinetic approach for carbonate subduction to the deep Earth's mantle. <i>Physics of the Earth and Planetary Interiors</i> , 2016, 259, 1-9.	0.7	35
93	The mineralogy of Ca-rich inclusions in sublithospheric diamonds. <i>Geochemistry International</i> , 2016, 54, 890-900.	0.2	27
94	Peridotite xenoliths from the Polynesian Austral and Samoa hotspots: Implications for the destruction of ancient <sup>187</sup> O and <sup>142</sup> Nd isotopic domains and the preservation of Hadean <sup>129</sup> Xe in the modern convecting mantle. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 185, 21-43.	1.6	14
95	Wüstite stability in the presence of a CO <sub>2</sub> -fluid and a carbonate-silicate melt: Implications for the graphite/diamond formation and generation of Fe-rich mantle metasomatic agents. <i>Lithos</i> , 2016, 244, 20-29.	0.6	10
96	Phase relations on the K <sub>2</sub> CO <sub>3</sub> -CaCO <sub>3</sub> -MgCO <sub>3</sub> join at 6 GPa and 900-1400 °C: Implications for incipient melting in carbonated mantle domains. <i>American Mineralogist</i> , 2016, 101, 437-447.	0.9	28
97	Incorporation of high amounts of Na in ringwoodite: Possible implications for transport of alkali into lower mantle. <i>American Mineralogist</i> , 2016, 101, 483-486.	0.9	10
98	A proposed new approach and unified solution to old Pb paradoxes. <i>Lithos</i> , 2016, 252-253, 32-40.	0.6	20
99	Slab melting as a barrier to deep carbon subduction. <i>Nature</i> , 2016, 529, 76-79.	13.7	343
100	Bridgmanite-like crystal structure in the novel Ti-rich phase synthesized at transition zone condition. <i>American Mineralogist</i> , 2017, 102, 227-230.	0.9	9
101	The role of melt-rock interaction in the formation of Quaternary high-MgO potassic basalt from the Greater Khingan Range, northeast China. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 262-280.	1.4	28
102	Decoupling of Mg-C and Sr-Nd-O isotopes traces the role of recycled carbon in magnesiocarbonatites from the Tarim Large Igneous Province. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 202, 159-178.	1.6	55
103	A synthesis of mineralization styles with an integrated genetic model of carbonatite-syenite-hosted REE deposits in the Cenozoic Mianning-Dechang REE metallogenic belt, the eastern Tibetan Plateau, southwestern China. <i>Journal of Asian Earth Sciences</i> , 2017, 137, 35-79.	1.0	104
104	Mantle transition zone-derived EM1 component beneath NE China: Geochemical evidence from Cenozoic potassic basalts. <i>Earth and Planetary Science Letters</i> , 2017, 465, 16-28.	1.8	122
105	Low- <sup>13</sup> C carbonates in the Miocene basalt of the northern margin of the North China Craton: Implications for deep carbon recycling. <i>Journal of Asian Earth Sciences</i> , 2017, 144, 110-125.	1.0	7
106	Recovery of an oxidized majorite inclusion from Earth's deep asthenosphere. <i>Science Advances</i> , 2017, 3, e1601589.	4.7	33
107	Inclusions in super-deep diamonds: windows on the very deep Earth. <i>Rendiconti Lincei</i> , 2017, 28, 595-604.	1.0	17
108	Using monazite geochronology to test the plume model for carbonatites: The example of Gifford Creek Carbonatite Complex, Australia. <i>Chemical Geology</i> , 2017, 463, 50-60.	1.4	18
109	Genesis of Diamonds and Associated Phases. <i>Springer Mineralogy</i> , 2017, , .	0.4	13

#	ARTICLE	IF	CITATIONS
110	Mantle Rocks and Diamond-Associated Phases: Role in Diamond Origin. Springer Mineralogy, 2017, , 7-29.	0.4	1
111	Mantle-Carbonatite Conception of Diamond and Associated Phases Genesis. Springer Mineralogy, 2017, , 115-137.	0.4	7
112	Sources and mobility of carbonate melts beneath cratons, with implications for deep carbon cycling, metasomatism and rift initiation. Earth and Planetary Science Letters, 2017, 466, 152-167.	1.8	120
113	Deep carbon cycles constrained by a large-scale mantle Mg isotope anomaly in eastern China. National Science Review, 2017, 4, 111-120.	4.6	240
114	The N-orth America mid-Cretaceous kimberlite corridor: Wet, edge-driven decompression melting of an OIB-type deep mantle source. Geochemistry, Geophysics, Geosystems, 2017, 18, 2727-2747.	1.0	37
115	Pressure-dependent compatibility of iron in garnet: Insights into the origin of ferropicritic melt. Geochimica Et Cosmochimica Acta, 2017, 197, 356-377.	1.6	28
116	U-Pb ages, geochemistry, C-O-Nd-Sr-Hf isotopes and petrogenesis of the Catalão II carbonatitic complex (Alto Paranaíba Igneous Province, Brazil): implications for regional-scale heterogeneities in the Brazilian carbonatite associations. International Journal of Earth Sciences, 2017, 106, 1963-1989.	0.9	36
117	Carbonatitic dykes during Pangaea transtension (Pelagonian Zone, Greece). Lithos, 2018, 302-303, 329-340.	0.6	4
118	Carbonate-Silicate-Sulfide Polyphase Inclusion in Diamond from the Komsomolskaya Kimberlite Pipe, Yakutia. Geochemistry International, 2018, 56, 283-291.	0.2	11
119	New High-Pressure Phase of CaCO <sub>3</sub> at the Topmost Lower Mantle: Implication for the Deep-Mantle Carbon Transportation. Geophysical Research Letters, 2018, 45, 1355-1360.	1.5	30
120	Ferropericlase inclusions in ultradeep diamonds from Sao Luiz (Brazil): high Li abundances and diverse Li-isotope and trace element compositions suggest an origin from a subduction mélange. Mineralogy and Petrology, 2018, 112, 291-300.	0.4	7
121	X-ray single-crystal structural characterization of Na <sub>2</sub> MgSiO <sub>4</sub> with cristobalite-type structure synthesised at 22 GPa and 1800 °C. European Journal of Mineralogy, 2018, 30, 485-489.	0.4	5
122	Structures and Transport Properties of CaCO <sub>3</sub> Melts under Earth's Mantle Conditions. ACS Earth and Space Chemistry, 2018, 2, 1-8.	1.2	15
123	Water and Oxygen Fugacity in the Lithospheric Mantle Wedge beneath the Northern Canadian Cordillera (Alligator Lake). Geochemistry, Geophysics, Geosystems, 2018, 19, 3844-3869.	1.0	13
124	CaCO <sub>3</sub> phase diagram studied with Raman spectroscopy at pressures up to 50 GPa and high temperatures and DFT modeling. Physics of the Earth and Planetary Interiors, 2018, 281, 31-45.	0.7	83
125	Mineral inclusions in diamonds from Karowe Mine, Botswana: super-deep sources for super-sized diamonds?. Mineralogy and Petrology, 2018, 112, 169-180.	0.4	12
126	The historical basanite - alkali basalt - tholeiite suite at Lanzarote, Canary Islands: Carbonated melts of heterogeneous mantle source?. Chemical Geology, 2018, 494, 56-68.	1.4	14
127	Low <sup>26</sup> Mg volcanic rocks of Tengchong in Southwestern China: A deep carbon cycle induced by supercritical liquids. Geochimica Et Cosmochimica Acta, 2018, 240, 191-219.	1.6	35



#	ARTICLE	IF	CITATIONS
128	The Petrology of the Kaiserstuhl Volcanic Complex, SW Germany: The Importance of Metasomatized and Oxidized Lithospheric Mantle for Carbonatite Generation. <i>Journal of Petrology</i> , 2018, 59, 1731-1762.	1.1	34
129	Carbon, carbides, carbonates and carbonatitic melts in the Earth's interior. <i>Journal of the Geological Society</i> , 2019, 176, 375-387.	0.9	40
130	Deep carbon cycle in subduction zones. <i>Science China Earth Sciences</i> , 2019, 62, 1764-1782.	2.3	23
131	A new view on the genesis of the Chiweigou gold deposit, Jilin, China: A carbonatite-type deposit. <i>Ore Geology Reviews</i> , 2019, 113, 103086.	1.1	2
132	The join $\text{CaCO}_3\text{-CaSiO}_3$ at 6â€¦GPa with implication to Ca-rich lithologies trapped by kimberlitic diamonds. <i>High Pressure Research</i> , 2019, 39, 547-560.	0.4	9
133	$\text{SiO}_2$ Inclusions in Sublithospheric Diamonds. <i>Geochemistry International</i> , 2019, 57, 964-972.	0.2	4
134	Diamonds and the Mantle Geodynamics of Carbon. , 2019, , 89-128.		16
135	$\text{CO}_2$ -Rich Melts in Earth. , 2019, , 129-162.		10
136	Geodynamic origin of carbonatites from the absolute paleotectonic reconstructions. <i>Journal of Geodynamics</i> , 2019, 125, 13-21.	0.7	10
137	Compressibility of two Na-rich clinopyroxenes: A synchrotron single-crystal X-ray diffraction study. <i>American Mineralogist</i> , 2019, 104, 905-913.	0.9	2
138	Evaluating mechanisms for eclogitic diamond growth: An example from Zimmi Neoproterozoic diamonds (West African craton). <i>Chemical Geology</i> , 2019, 520, 21-32.	1.4	26
139	Petrology of alkaline silicate rocks and carbonatites of the Chuktukon massif, Chadobets upland, Russia: Sources, evolution and relation to the Triassic Siberian LIP. <i>Lithos</i> , 2019, 332-333, 245-260.	0.6	27
140	The fate of carbonate in oceanic crust subducted into earth's lower mantle. <i>Earth and Planetary Science Letters</i> , 2019, 511, 213-222.	1.8	28
141	Deep Carbon. , 2019, , .		41
142	Kinetic Control on the Depth Distribution of Superdeep Diamonds. <i>Geophysical Research Letters</i> , 2019, 46, 1984-1992.	1.5	8
143	Enhanced constraints on the interior composition and structure of terrestrial exoplanets. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 482, 2222-2233.	1.6	25
144	Effects of melting, subduction-related metasomatism, and sub-solidus equilibration on the distribution of water contents in the mantle beneath the Rio Grande Rift. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 266, 351-381.	1.6	11
145	Thorium-poor monazite and columbite-(Fe) mineralization in the Gleibat Lafhouda carbonatite and its associated iron-oxide-apatite deposit of the Ouled Dlim Massif, South Morocco. <i>Gondwana Research</i> , 2020, 77, 19-39.	3.0	18

#	ARTICLE	IF	CITATIONS
146	Generation of continental intraplate alkali basalts and implications for deep carbon cycle. <i>Earth-Science Reviews</i> , 2020, 201, 103073.	4.0	30
147	Multiphase carbonatite-related magmatic and metasomatic processes in the genesis of the ore-hosting dolomite in the giant Bayan Obo REE-Nb-Fe deposit. <i>Lithos</i> , 2020, 354-355, 105359.	0.6	11
148	Stability and migration of slab-derived carbonate-rich melts above the transition zone. <i>Earth and Planetary Science Letters</i> , 2020, 531, 116000.	1.8	15
149	Metamorphism, fluid behavior and magmatism in oceanic subduction zones. <i>Science China Earth Sciences</i> , 2020, 63, 52-77.	2.3	15
150	Geochemistry of NW-SE trending Palaeoproterozoic mafic dyke intrusions in the Bundelkhand Craton, India and subcontinental lithospheric mantle processes. <i>Precambrian Research</i> , 2020, 351, 105956.	1.2	9
151	Evidence for complex iron oxides in the deep mantle from FeNi(Cu) inclusions in superdeep diamond. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 21088-21094.	3.3	8
152	New geochemical and Sr-Nd-Pb isotope evidence for FOZO and Azores plume components in the sources of DSDP Holes 559 and 561 MORBs. <i>Chemical Geology</i> , 2020, 557, 119858.	1.4	4
153	The lithospheric-to-lower-mantle carbon cycle recorded in superdeep diamonds. <i>Nature</i> , 2020, 585, 234-238.	13.7	27
154	Zircon survival in shallow asthenosphere and deep lithosphere. <i>American Mineralogist</i> , 2020, 105, 1662-1671.	0.9	23
155	Sodium Silicates at the Boundary between the Transition Zone and the Lower Mantle: Compositional and Structural Patterns. <i>Doklady Earth Sciences</i> , 2020, 491, 150-154.	0.2	1
156	Calcium isotopic evidence for the mantle sources of carbonatites. <i>Science Advances</i> , 2020, 6, eaba3269.	4.7	48
157	Major and trace element partitioning between majoritic garnet, clinopyroxene, and carbon dioxide-rich liquid in model carbonated peridotite at 10 GPa and interpretations of the element chemistry of majoritic garnet inclusions in diamonds from the subcontinental mantle of Brazil and Guinea. <i>Lithos</i> , 2020, 362-363, 105486.	0.6	1
158	Basic problems concerning the composition of the Earth's lower mantle. <i>Lithos</i> , 2020, 364-365, 105515.	0.6	3
159	The Mantle Transition Zone Hosts the Missing HIMU Reservoir Beneath Eastern China. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL087260.	1.5	6
160	Equation of state for CO and CO <sub>2</sub> fluids and their application on decarbonation reactions at high pressure and temperature. <i>Chemical Geology</i> , 2021, 559, 119918.	1.4	0
161	Subduction-Driven Volatile Recycling: A Global Mass Balance. <i>Annual Review of Earth and Planetary Sciences</i> , 2021, 49, 37-70.	4.6	65
162	Origin, properties, and structure of breyite: The second most abundant mineral inclusion in super-deep diamonds. <i>American Mineralogist</i> , 2021, 106, 38-43.	0.9	22
163	Evaluating the Formation Pressure of Diamond-Hosted Majoritic Garnets: A Machine Learning Majorite Barometer. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2020JB020604.	1.4	23

#	ARTICLE	IF	CITATIONS
164	Slab Transport of Fluids to Deep Focus Earthquake Depths—Thermal Modeling Constraints and Evidence From Diamonds. <i>AGU Advances</i> , 2021, 2, e2020AV000304.	2.3	35
167	Oceanic and super-deep continental diamonds share a transition zone origin and mantle plume transportation. <i>Scientific Reports</i> , 2021, 11, 16958.	1.6	7
168	Titanium Minerals and Their Assemblages in the Earth's Mantle: A Review of Natural and Experimental Data. <i>Geochemistry International</i> , 2021, 59, 725-742.	0.2	2
169	Carbon concentration increases with depth of melting in Earth's upper mantle. <i>Nature Geoscience</i> , 2021, 14, 697-703.	5.4	29
170	Nephelinites in eastern China originating from the mantle transition zone. <i>Chemical Geology</i> , 2021, 576, 120276.	1.4	22
172	Carbon flux and alkaline volcanism: Evidence from carbonatite-like carbonate minerals in trachytes, Ulleung Island, South Korea. <i>American Mineralogist</i> , 2022, 107, 1717-1735.	0.9	2
173	Derivation of Hawaiian rejuvenated magmas from deep carbonated mantle sources: A review of experimental and natural constraints. <i>Earth-Science Reviews</i> , 2021, 222, 103819.	4.0	4
174	Evidence of Volatile-Induced Melting in the Northeast Asian Upper Mantle. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB022167.	1.4	3
175	Tracing the origin of zircon megacrysts in Triassic sediments of northeastern Siberian craton with implications to diamond paucity of craton-edge subcontinental lithospheric mantle. <i>Lithos</i> , 2021, 400-401, 106376.	0.6	2
176	A reversed redox gradient in Earth's mantle transition zone. <i>Earth and Planetary Science Letters</i> , 2021, 575, 117181.	1.8	1
177	Mineral Associations in Diamonds from the Lowermost Upper Mantle and Uppermost Lower Mantle. , 2013, , 235-253.		15
179	The transition zone as a host for recycled volatiles: Evidence from nitrogen and carbon isotopes in ultra-deep diamonds from Monastery and Jagersfontein (South Africa). <i>Chemical Geology</i> , 2017, 466, 733-749.	1.4	17
180	Phase stabilities of $MgCO_3$ studied by Raman spectroscopy, x-ray diffraction, and density functional theory calculations. <i>Physical Review Materials</i> , 2020, 4, .	0.9	23
181	A trace element perspective on the source of ocean island basalts (OIB) and fate of subducted ocean crust (SOC) and mantle lithosphere (SML). <i>Episodes</i> , 2012, 35, 310-327.	0.8	68
182	Breyite inclusions in diamond: experimental evidence for possible dual origin. <i>European Journal of Mineralogy</i> , 2020, 32, 171-185.	0.4	18
183	Natural cubic perovskite, $Ca(Ti, Si, Cr)O_3$ , a versatile potential host for rock-forming and less-common elements up to Earth's mantle pressure. <i>American Mineralogist</i> , 2022, 107, 1936-1945.	0.9	5
185	The Basic Principles of Creation of Habitable Planets around Stars in the Milky Way Galaxy. <i>International Journal of Astronomy and Astrophysics</i> , 2016, 06, 512-554.	0.2	4
186	A Plateau Mantle Convection System in the West Pacific Revealed by Tertiary Ultramafic Mafic Volcanic Rocks in Southeast China. <i>Earth and Space Science</i> , 2021, 8, e2020EA001324.	1.1	0

#	ARTICLE	IF	CITATIONS
187	The Sources and Evolution of Fluid Phases of Guli Massif Carbonatites (West Siberia): Summarizing of Noble Gases, N <sub>2</sub> , CO <sub>2</sub> , H <sub>2</sub> O Stepwise Crushing Data. <i>Petrology</i> , 2021, 29, 657-675.	0.2	0
188	Ellinaite, CaCr <sub>2</sub> O <sub>4</sub> , a new natural post-spinel oxide from Hatrurim Basin, Israel, and JuÃna kimberlite field, Brazil. <i>European Journal of Mineralogy</i> , 2021, 33, 727-742.	0.4	4
189	High-Pressure Synthesis and Ambient-Pressure Tem Investigation of Mg-Orthocarbonate. <i>SSRN Electronic Journal</i> , 0, , .	0.4	3
190	Evidence from gas-rich ultramafic xenoliths for Superplume-derived recycled volatiles in the East African sub-continental mantle. <i>Chemical Geology</i> , 2022, 589, 120682.	1.4	2
191	Origin of low-MgO primitive intraplate alkaline basalts from partial melting of carbonate-bearing eclogite sources. <i>Geochimica Et Cosmochimica Acta</i> , 2022, 324, 240-261.	1.6	13
192	Contribution of recycled sediments to the mantle reservoir beneath Hainan Island: Evidence from Sr, Nd, Pb, Hf, and Mg isotopic analyses of Late Cenozoic basalts. <i>Chemie Der Erde</i> , 2022, , 125883.	0.8	0
193	Melting of carbonated pelite at 5.5â€“15.5 GPa: implications for the origin of alkali-rich carbonatites and the deep water and carbon cycles. <i>Contributions To Mineralogy and Petrology</i> , 2022, 177, 1.	1.2	5
195	New High-Pressure and High-Temperature CaCO <sub>3</sub> Polymorph. <i>ACS Earth and Space Chemistry</i> , 2022, 6, 1506-1513.	1.2	14
196	Constraints of barium isotopes on recycling of ancient oceanic crust in the mantle of the South China Sea. <i>Journal of Volcanology and Geothermal Research</i> , 2022, 429, 107608.	0.8	4
197	Geochronology, geochemistry and Srâ€“Ndâ€“Pbâ€“Hf isotopes of the alkalineâ€“carbonatite complex in the Weishan REE deposit, Luxi Block: Constraints on the genesis and tectonic setting of the REE mineralization. <i>Ore Geology Reviews</i> , 2022, 147, 104996.	1.1	4
198	Fluid Inclusions in Fibrous Diamonds. <i>Reviews in Mineralogy and Geochemistry</i> , 2022, 88, 475-532.	2.2	25
199	Carbon and Nitrogen in Mantle-Derived Diamonds. <i>Reviews in Mineralogy and Geochemistry</i> , 2022, 88, 809-875.	2.2	17
200	Geochronology of Diamonds. <i>Reviews in Mineralogy and Geochemistry</i> , 2022, 88, 567-636.	2.2	18
201	Raman Identification of Inclusions in Diamond. <i>Reviews in Mineralogy and Geochemistry</i> , 2022, 88, 451-473.	2.2	5
202	Geochemistry of Silicate and Oxide Inclusions in Sublithospheric Diamonds. <i>Reviews in Mineralogy and Geochemistry</i> , 2022, 88, 393-450.	2.2	20
203	Melting Phase Equilibria from 4 to 7ÂGPa in the System CaO-MgO-Al <sub>2</sub> O <sub>3</sub> -SiO <sub>2</sub> -CO <sub>2</sub> , the Persistence of the âœLedgeâœ in Carbonated Basalt with Excess Silica, and the Most Likely Limits on the Depths of Termination of Carbon Cycle at Subduction Zones. <i>Journal of Petrology</i> , 2022, 63, .	1.1	1
204	A HIMU volcanic belt along the SW African coast (âˆ¼483â€“49ÂMa): New geochemical clues to deep mantle dynamics from carbonatite and silica-undersaturated complexes in Namibia. <i>Lithos</i> , 2022, 430-431, 106839.	0.6	2
205	Interaction of carbonates with peridotite containing iron metal: Implications for carbon speciation in the upper mantle. <i>Lithos</i> , 2022, 428-429, 106817.	0.6	1

#	ARTICLE	IF	CITATIONS
206	First Experimental Synthesis of Mg Orthocarbonate by the $MgCO_3 + MgO = Mg_2CO_4$ Reaction at Pressures of the Earth's Lower Mantle. <i>JETP Letters</i> , 2022, 116, 477-484.	0.4	7
207	The new $Ca(Fe,Al)_2O_4$ phase with calcium ferrite-type structure, a likely carrier of Al in the transition zone and lower mantle. <i>Journal of Physics and Chemistry of Solids</i> , 2022, 171, 111031.	1.9	0
208	High-pressure phase relations in the system $Fe-Ni-Cu-S$ up to 14 GPa: implications for the stability of sulfides in the earth's upper mantle. <i>Contributions To Mineralogy and Petrology</i> , 2022, 177, .	1.2	4
209	Zinc isotopic evidence for recycled carbonate in the deep mantle. <i>Nature Communications</i> , 2022, 13, .	5.8	12
210	Extreme redox variations in a superdeep diamond from a subducted slab. <i>Nature</i> , 2023, 613, 85-89.	13.7	4
211	Petrogenesis and relationship with REE mineralization of the quartz syenite from Chishan and Longbaoshan alkaline complex, southeastern North China Craton: Insights from zircon $U-Pb$ geochronology, element, and $Sr-Nd-Pb-Hf$ isotope geochemistry. <i>Frontiers in Earth Science</i> , 0, 10, .	0.8	0
212	Diamonds reveal subducted slab harzburgite in the lower mantle. <i>Geology</i> , 2023, 51, 238-241.	2.0	3
213	The Khajraha, oldest carbonatite from India: Implications on carbonated-eclogite source, multi-level emplacement and its petrogenetic link with orthomagmatic fluids. <i>Lithos</i> , 2023, 446-447, 107100.	0.6	0
214	Nature of slab-mantle interactions recorded by coupled $^{13}C-^{15}N-^{18}O$ signatures and elemental compositions of Koidu diamonds and their inclusions. <i>Geochimica Et Cosmochimica Acta</i> , 2023, 347, 16-27.	1.6	1
215	Li and O isotopes of mantle xenoliths from deep fault-related Cenozoic basalts in eastern China: The role of subducted components in the generation of the heterogeneous lithospheric mantle. <i>Chemical Geology</i> , 2023, 628, 121471.	1.4	0
216	Unraveling $CO_2$ -rich fluids and daughter minerals recorded in fluid and mineral inclusions from the Martin Vaz archipelago, Vitória-Trindade Ridge (VTR), South Atlantic. <i>Journal of South American Earth Sciences</i> , 2023, 127, 104365.	0.6	0
218	Imperfections in natural diamond: the key to understanding diamond genesis and the mantle. <i>Rivista Del Nuovo Cimento</i> , 2023, 46, 381-471.	2.0	1