Carlos J Garrido

List of Publications by Year in descending order

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		61857	71532
113	6,250	43	76
papers	citations	h-index	g-index
122	122	122	3528
all docs	docs citations	times ranked	citing authors

#	Article	IF	CITATIONS
1	Unraveling the sequence of serpentinization reactions: petrography, mineral chemistry, and petrophysics of serpentinites from MAR 15°N (ODP Leg 209, Site 1274). Geophysical Research Letters, 2006, 33, .	1.5	311
2	Seawater-peridotite interactions: First insights from ODP Leg 209, MAR 15°N. Geochemistry, Geophysics, Geosystems, 2004, 5, n/a-n/a.	1.0	281
3	Diversity of Mafic Rocks in the Ronda Peridotite: Evidence for Pervasive Melt-Rock Reaction during Heating of Subcontinental Lithosphere by Upwelling Asthenosphere. Journal of Petrology, 1999, 40, 729-754.	1.1	213
4	The role of serpentinites in cycling of carbon and sulfur: Seafloor serpentinization and subduction metamorphism. Lithos, 2013, 178, 40-54.	0.6	193
5	Origin of Pyroxenite-Peridotite Veined Mantle by Refertilization Reactions: Evidence from the Ronda Peridotite (Southern Spain). Journal of Petrology, 2008, 49, 999-1025.	1.1	180
6	Petrogenesis of Mafic Garnet Granulite in the Lower Crust of the Kohistan Paleo-arc Complex (Northern Pakistan): Implications for Intra-crustal Differentiation of Island Arcs and Generation of Continental Crust. Journal of Petrology, 2006, 47, 1873-1914.	1.1	172
7	The Recrystallization Front of the Ronda Peridotite: Evidence for Melting and Thermal Erosion of Subcontinental Lithospheric Mantle beneath the Alboran Basin. Journal of Petrology, 2001, 42, 141-158.	1.1	157
8	Recycling of water, carbon, and sulfur during subduction of serpentinites: A stable isotope study of Cerro del Almirez, Spain. Earth and Planetary Science Letters, 2012, 327-328, 50-60.	1.8	153
9	Tschermak's substitution in antigorite and consequences for phase relations and water liberation in high-grade serpentinites. Lithos, 2013, 178, 186-196.	0.6	153
10	Metamorphic Record of High-pressure Dehydration of Antigorite Serpentinite to Chlorite Harzburgite in a Subduction Setting (Cerro del Almirez, Nevado-Filabride Complex, Southern Spain). Journal of Petrology, 2011, 52, 2047-2078.	1.1	147
11	Geochemical and petrographic evidence for magmatic impregnation in the oceanic lithosphere at Atlantis Massif, Mid-Atlantic Ridge (IODP Hole U1309D, 30°N). Chemical Geology, 2009, 264, 71-88.	1.4	134
12	Distribution of niobium, tantalum, and other highly incompatible trace elements in the lithospheric mantle: The spinel paradox. Geochimica Et Cosmochimica Acta, 1996, 60, 545-550.	1.6	131
13	Multistage evolution of the Jijal ultramafic–mafic complex (Kohistan, N Pakistan): Implications for building the roots of island arcs. Earth and Planetary Science Letters, 2007, 261, 179-200.	1.8	126
14	Hydrothermal alteration and microbial sulfate reduction in peridotite and gabbro exposed by detachment faulting at the Midâ€Atlantic Ridge, 15°20′N (ODP Leg 209): A sulfur and oxygen isotope study. Geochemistry, Geophysics, Geosystems, 2007, 8, .	1.0	123
15	Distribution of platinum-group elements and Os isotopes in chromite ores from MayarÃ-Baracoa Ophiolitic Belt (eastern Cuba). Contributions To Mineralogy and Petrology, 2005, 150, 589-607.	1.2	121
16	Contrasting lithospheric mantle domains beneath the Massif Central (France) revealed by geochemistry of peridotite xenoliths. Earth and Planetary Science Letters, 2000, 181, 359-375.	1.8	117
17	Thermodynamic constraints on mineral carbonation of serpentinized peridotite. Lithos, 2011, 126, 147-160.	0.6	113
18	An experimental investigation of antigorite dehydration in natural silica-enriched serpentinite. Contributions To Mineralogy and Petrology, 2010, 159, 25-42.	1.2	110

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19	Petrogenesis of highly depleted peridotites and gabbroic rocks from the MayarÃ-Baracoa Ophiolitic Belt (eastern Cuba). Contributions To Mineralogy and Petrology, 2006, 151, 717-736.	1.2	103
20	Seismic properties of an asthenospherized lithospheric mantle: constraints from lattice preferred orientations in peridotite from the Ronda massif. Earth and Planetary Science Letters, 2001, 192, 235-249.	1.8	102
21	Deformation and Reactive Melt Transport in the Mantle Lithosphere above a Large-scale Partial Melting Domain: the Ronda Peridotite Massif, Southern Spain. Journal of Petrology, 2009, 50, 1235-1266.	1.1	102
22	Strain localisation in the subcontinental mantle $\hat{a} \in $ " a ductile alternative to the brittle mantle. Tectonophysics, 2007, 445, 318-336.	0.9	100
23	Petrology of titanian clinohumite and olivine at the high-pressure breakdown of antigorite serpentinite to chlorite harzburgite (Almirez Massif, S. Spain). Contributions To Mineralogy and Petrology, 2005, 149, 627-646.	1.2	97
24	Geochemical Architecture of the Lower- to Middle-crustal Section of a Paleo-island Arc (Kohistan) Tj ETQq0 0 0 rg Subduction Zone. Journal of Petrology, 2009, 50, 531-569.	3T /Overlo 1.1	ck 10 Tf 50 5 96
25	Garnet lherzolite and garnet-spinel mylonite in the Ronda peridotite: Vestiges of Oligocene backarc mantle lithospheric extension in the western Mediterranean. Geology, 2011, 39, 927-930.	2.0	91
26	Migration and accumulation of ultra-depleted subduction-related melts in the Massif du Sud ophiolite (New Caledonia). Chemical Geology, 2009, 266, 171-186.	1.4	90
27	Incompatible trace element partitioning and residence in anhydrous spinel peridotites and websterites from the Ronda orogenic peridotite. Earth and Planetary Science Letters, 2000, 181, 341-358.	1.8	86
28	Origin of the island arc Moho transition zone via melt-rock reaction and its implications for intracrustal differentiation of island arcs: Evidence from the Jijal complex (Kohistan complex,) Tj ETQq0 0 0 rgBT /C	Dvædock 1	0ats 50 377
29	Enrichment of HFSE in chlorite-harzburgite produced by high-pressure dehydration of antigorite-serpentinite: Implications for subduction magmatism. Geochemistry, Geophysics, Geosystems, 2005, 6, n/a-n/a.	1.0	81
30	Redox state of iron during high-pressure serpentinite dehydration. Contributions To Mineralogy and Petrology, 2015, 169, 1.	1.2	76
31	Variation of cooling rate with depth in lower crust formed at an oceanic spreading ridge: Plagioclase crystal size distributions in gabbros from the Oman ophiolite. Geochemistry, Geophysics, Geosystems, 2001, 2, n/a-n/a.	1.0	73
32	Geochemistry of Cretaceous Magmatism in Eastern Cuba: Recycling of North American Continental Sediments and Implications for Subduction Polarity in the Greater Antilles Paleo-arc. Journal of Petrology, 2007, 48, 1813-1840.	1.1	73
33	Building an island-arc crustal section: Time constraints from a LA-ICP-MS zircon study. Earth and Planetary Science Letters, 2011, 309, 268-279.	1.8	68
34	11B-rich fluids in subduction zones: The role of antigorite dehydration in subducting slabs and boron isotope heterogeneity in the mantle. Chemical Geology, 2014, 376, 20-30.	1.4	66
35	Fluid transfer into the wedge controlled by high-pressure hydrofracturing in the cold top-slab mantle. Earth and Planetary Science Letters, 2010, 297, 271-286.	1.8	62
36	Carbonation of mantle peridotite by CO2-rich fluids: the formation of listvenites in the Advocate ophiolite complex (Newfoundland, Canada). Lithos, 2018, 323, 238-261.	0.6	61

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#	Article	IF	CITATIONS
37	Plastic deformation and development of antigorite crystal preferred orientation in high-pressure serpentinites. Earth and Planetary Science Letters, 2012, 349-350, 75-86.	1.8	58
38	The Beni Bousera Peridotite (Rif Belt, Morocco): an Oblique-slip Low-angle Shear Zone Thinning the Subcontinental Mantle Lithosphere. Journal of Petrology, 2014, 55, 283-313.	1.1	58
39	Platinum-group elements, S, Se and Cu in highly depleted abyssal peridotites from the Mid-Atlantic Ocean Ridge (ODP Hole 1274A): Influence of hydrothermal and magmatic processes. Contributions To Mineralogy and Petrology, 2013, 166, 1521-1538.	1.2	57
40	Element mobility from seafloor serpentinization to high-pressure dehydration of antigorite in subducted serpentinite: Insights from the Cerro del Almirez ultramafic massif (southern Spain). Lithos, 2013, 178, 128-142.	0.6	54
41	In situ Re–Os isotopic analysis of platinum-group minerals from the MayarÃ-Cristal ophiolitic massif (MayarÃ-Baracoa Ophiolitic Belt, eastern Cuba): implications for the origin of Os-isotope heterogeneities in podiform chromitites. Contributions To Mineralogy and Petrology, 2011, 161, 977-990.	1.2	51
42	Backarc basin inversion and subcontinental mantle emplacement in the crust: kilometre-scale folding and shearing at the base of the proto-AlborÃin lithospheric mantle (Betic Cordillera, southern Spain). Journal of the Geological Society, 2013, 170, 47-55.	0.9	51
43	Neoproterozoic granitoids in the basement of the Moroccan Central Meseta: Correlation with the Anti-Atlas at the NW paleo-margin of Gondwana. Precambrian Research, 2017, 299, 34-57.	1.2	49
44	Highly ordered antigorite from Cerro del Almirez HP–HT serpentinites, SE Spain. Contributions To Mineralogy and Petrology, 2008, 156, 679-688.	1.2	44
45	Mantle refertilization by melts of crustal-derived garnet pyroxenite: Evidence from the Ronda peridotite massif, southern Spain. Earth and Planetary Science Letters, 2013, 362, 66-75.	1.8	44
46	A Late Oligocene Suprasubduction Setting in the Westernmost Mediterranean Revealed by Intrusive Pyroxenite Dikes in the Ronda Peridotite (Southern Spain). Journal of Geology, 2012, 120, 237-247.	0.7	43
47	The composition of nanogranitoids in migmatites overlying the Ronda peridotites (Betic Cordillera, S) Tj ETQq1 1 Petrology, 2016, 171, 1.	0.784314 1.2	l rgBT /Overla 43
48	Antigorite equation of state and anomalous softening at 6 GPa: an in situ single-crystal X-ray diffraction study. Contributions To Mineralogy and Petrology, 2010, 160, 33-43.	1.2	41
49	Deformation processes and rheology of pyroxenites under lithospheric mantle conditions. Journal of Structural Geology, 2012, 39, 138-157.	1.0	41
50	Geochemical record of subduction initiation in the sub-arc mantle: Insights from the Loma Caribe peridotite (Dominican Republic). Lithos, 2016, 252-253, 1-15.	0.6	41
51	Breakdown mechanisms of titanclinohumite in antigorite serpentinite (Cerro del Almirez massif, S.) Tj ETQq1 1 0	.784314 rg 0.6	gBT /Overloci
52	Fluid-assisted strain localization in the shallow subcontinental lithospheric mantle. Lithos, 2016, 262, 636-650.	0.6	38
53	Persistence of mantle lithospheric Re–Os signature during asthenospherization of the subcontinental lithospheric mantle: insights from in situ isotopic analysis of sulfides from the Ronda peridotite (Southern Spain). Contributions To Mineralogy and Petrology, 2010, 159, 315-330.	1.2	37
54	Microstructures and petrology of melt inclusions in the anatectic sequence of Jubrique (Betic) Tj ETQq0 0 0 rgBT	/Overlock	19Jf 50 62

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#	Article	IF	CITATIONS
55	Fluid-mediated carbon release from serpentinite-hosted carbonates during dehydration of antigorite-serpentinite in subduction zones. Earth and Planetary Science Letters, 2020, 531, 115964.	1.8	36
56	The architecture of the European-Mediterranean lithosphere: A synthesis of the Re-Os evidence. Geology, 2013, 41, 547-550.	2.0	34
57	Os isotope heterogeneity of the upper mantle: Evidence from the MayarÖBaracoa ophiolite belt in eastern Cuba. Earth and Planetary Science Letters, 2006, 241, 466-476.	1.8	32
58	Highâ€ <i>P</i> metamorphism of rodingites during serpentinite dehydration (Cerro del Almirez,) Tj ETQq0 0 0 rg Geology, 2018, 36, 1141-1173.	gBT /Overl 1.6	ock 10 Tf 50 (32
59	Subduction- and exhumation-related structures preserved in metaserpentinites and associated metasediments from the Nevado–Filábride Complex (Betic Cordillera, SE Spain). Tectonophysics, 2015, 644-645, 40-57.	0.9	30
60	Effects of seawater mixing on the mobility of trace elements in acid phosphogypsum leachates. Marine Pollution Bulletin, 2018, 127, 695-703.	2.3	30
61	Stable isotope insights into the weathering processes of a phosphogypsum disposal area. Water Research, 2018, 140, 344-353.	5.3	30
62	Transfer of Os isotopic signatures from peridotite to chromitite in the subcontinental mantle: Insights from in situ analysis of platinum-group and base-metal minerals (Ojén peridotite massif,) Tj ETQq0 0 C)rg6875/Ov	erlæsk 10 Tf 5
63	Strain Localization in Pyroxenite by Reaction-Enhanced Softening in the Shallow Subcontinental Lithospheric Mantle. Journal of Petrology, 2013, 54, 1997-2031.	1.1	29
64	Fractionation of highly siderophile elements in refertilized mantle: Implications for the Os isotope composition of basalts. Earth and Planetary Science Letters, 2014, 400, 33-44.	1.8	29
65	Diversity of Mafic Rocks in the Ronda Peridotite: Evidence for Pervasive Melt–Rock Reaction during Heating of Subcontinental Lithosphere by Upwelling Asthenosphere. , 0, .		28
66	Quantification of potentially toxic elements in food material by laser ablation-inductively coupled plasma-mass spectrometry (LA-ICP-MS) via pressed pellets. Food Chemistry, 2019, 274, 726-732.	4.2	27
67	On the controls of mineral assemblages and textures in alkaline springs, Samail Ophiolite, Oman. Chemical Geology, 2020, 533, 119435.	1.4	27
68	On topotaxy and compaction during antigorite and chlorite dehydration: an experimental and natural study. Contributions To Mineralogy and Petrology, 2015, 169, 1.	1.2	26
69	Zircon recycling and crystallization during formation of chromite- and Ni-arsenide ores in the subcontinental lithospheric mantle (SerranÃa de Ronda, Spain). Ore Geology Reviews, 2017, 90, 193-209.	1.1	26
70	Lichens as a spatial record of metal air pollution in the industrialized city of Huelva (SW Spain). Environmental Pollution, 2019, 253, 918-929.	3.7	25
71	Oriented growth of garnet by topotactic reactions and epitaxy in highâ€pressure, mafic garnet granulite formed by dehydration melting of metastable hornblendeâ€gabbronorite (Jijal Complex,) Tj ETQq1 1 0.	78 43 14 rg	gBT2/20verlock
72	Deformation and exhumation of the Ronda peridotite (Spain). Tectonics, 2013, 32, 1011-1025.	1.3	22

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73	Hyperextension of continental to oceanic-like lithosphere: The record of late gabbros in the shallow subcontinental lithospheric mantle of the westernmost Mediterranean. Tectonophysics, 2015, 650, 65-79.	0.9	22
74	Subduction metamorphism of serpentiniteâ€hosted carbonates beyond antigoriteâ€serpentinite dehydration (Nevadoâ€Filábride Complex, Spain). Journal of Metamorphic Geology, 2019, 37, 681-715.	1.6	22
75	Genesis of ultra-high pressure garnet pyroxenites in orogenic peridotites and its bearing on the compositional heterogeneity of the Earth's mantle. Geochimica Et Cosmochimica Acta, 2018, 232, 303-328.	1.6	21
76	The role of silica in the hydrous metamorphism of chromite. Ore Geology Reviews, 2017, 90, 274-286.	1.1	20
77	Fluidâ€Enhanced Annealing in the Subcontinental Lithospheric Mantle Beneath the Westernmost Margin of the Carpathianâ€Pannonian Extensional Basin System. Tectonics, 2017, 36, 2987-3011.	1.3	20
78	Short wavelength lateral variability of lithospheric mantle beneath the Middle Atlas (Morocco) as recorded by mantle xenoliths. Tectonophysics, 2015, 650, 34-52.	0.9	18
79	Textural evolution during high-pressure dehydration of serpentinite to peridotite and its relation to stress orientations and kinematics of subducting slabs: Insights from the Almirez ultramafic massif. Lithos, 2018, 320-321, 470-489.	0.6	18
80	Petrology and geochemistry of mafic and ultramafic cumulate rocks from the eastern part of the Sabzevar ophiolite (NE Iran): Implications for their petrogenesis and tectonic setting. Geoscience Frontiers, 2020, 11, 2347-2364.	4.3	17
81	Combined microstructural and mineralogical phase characterization of gallstones in a patient-based study in SW Spain - Implications for environmental contamination in their formation. Science of the Total Environment, 2016, 573, 433-443.	3.9	16
82	Sr-Nd-Pb isotopic systematics of crustal rocks from the western Betics (S. Spain): Implications for crustal recycling in the lithospheric mantle beneath the westernmost Mediterranean. Lithos, 2017, 276, 45-61.	0.6	16
83	Lithosphere tearing along STEP faults and synkinematic formation of lherzolite and wehrlite in the shallow subcontinental mantle. Solid Earth, 2019, 10, 1099-1121.	1.2	16
84	Antimony as a tracer of non-exhaust traffic emissions in air pollution in Granada (S Spain) using lichen bioindicators. Environmental Pollution, 2020, 263, 114482.	3.7	16
85	Refertilization Processes in the Subcontinental Lithospheric Mantle: the Record of the Beni Bousera Orogenic Peridotite (Rif Belt, Northern Morocco). Journal of Petrology, 2016, 57, 2251-2270.	1.1	15
86	3â€D microstructure of olivine in complex geological materials reconstructed by correlative Xâ€ray T and EBSD analyses. Journal of Microscopy, 2017, 268, 193-207.	0.8	15
87	A crystallographic study of crystalline casts and pseudomorphs from the 3.5â€Ga Dresser Formation, Pilbara Craton (Australia). Journal of Applied Crystallography, 2018, 51, 1050-1058.	1.9	15
88	Geochemistry and mineralogy of serpentinization-driven hyperalkaline springs in the Ronda peridotites. Lithos, 2019, 350-351, 105215.	0.6	15
89	Iron and zinc stable isotope evidence for open-system high-pressure dehydration of antigorite serpentinite in subduction zones. Geochimica Et Cosmochimica Acta, 2021, 296, 210-225.	1.6	15
90	Late Cadomian rifting of the NW Gondwana margin and the reworking of Precambrian crust – evidence from bimodal magmatism in the early Paleozoic Moroccan Meseta. International Geology Review, 2021, 63, 2013-2036.	1.1	13

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91	FTIR and Raman spectroscopy characterization of fluorine-bearing titanian clinohumite in antigorite serpentinite and chlorite harzburgite. Earth, Planets and Space, 2014, 66, .	0.9	12
92	Spatial variability of pyroxenite layers in the Beni Bousera orogenic peridotite (Morocco) and implications for their origin. Comptes Rendus - Geoscience, 2016, 348, 619-629.	0.4	12
93	The Composition of the Lower Oceanic Crust in the Wadi Khafifah Section of the Southern Samail (Oman) Ophiolite. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB021986.	1.4	12
94	Two Cenozoic Extensional Phases in Mallorca and Their Bearing on the Geodynamic Evolution of the Western Mediterranean. Tectonics, 2021, 40, e2021TC006868.	1.3	12
95	Flow in the western Mediterranean shallow mantle: Insights from xenoliths in Pliocene alkali basalts from SE Iberia (eastern Betics, Spain). Tectonics, 2016, 35, 2657-2676.	1.3	10
96	Multi-stage evolution of the lithospheric mantle beneath the westernmost Mediterranean: Geochemical constraints from peridotite xenoliths in the eastern Betic Cordillera (SE Spain). Lithos, 2017, 276, 75-89.	0.6	10
97	Unraveling the impact of chronic exposure to metal pollution through human gallstones. Science of the Total Environment, 2018, 624, 1031-1040.	3.9	10
98	Petrological and geochemical constraints on the origin of apatite ores from Mesozoic alkaline intrusive complexes, Central High-Atlas, Morocco. Ore Geology Reviews, 2021, 136, 104250.	1.1	10
99	Alpine Orogeny: Deformation and Structure in the Southern Iberian Margin (Betics s.l.). Regional Geology Reviews, 2019, , 453-486.	1.2	8
100	Lithological Successions of the Internal Zones and Flysch Trough Units of the Betic Chain. Regional Geology Reviews, 2019, , 377-432.	1.2	8
101	Metallogenic fingerprint of a metasomatized lithospheric mantle feeding gold endowment in the western Mediterranean basin. Bulletin of the Geological Society of America, 2022, 134, 1468-1484.	1.6	7
102	Effects of redox oscillations on the phosphogypsum waste in an estuarine salt-marsh system. Chemosphere, 2020, 242, 125174.	4.2	6
103	A thermomechanical numerical model for crustal accretion of medium to fast spreading midâ€ocean ridges. Geochemistry, Geophysics, Geosystems, 2009, 10, .	1.0	5
104	Alpine Metamorphism in the Betic Internal Zones. Regional Geology Reviews, 2019, , 519-544.	1.2	5
105	Fe-Ti-Zr metasomatism in the oceanic mantle due to extreme differentiation of tholeiitic melts (Moa-Baracoa ophiolite, Cuba). Lithos, 2020, 358-359, 105420.	0.6	5
106	Geochemical evolution of the lithospheric mantle beneath the Styrian Basin (Western Pannonian) Tj ETQq0 0 0 r	gBT /Overl 0.6	ock 10 Tf 50
	Morphological transition during prograde olivine growth formed by high-pressure dehydration of		

antigorite-serpentinite to chlorite-harzburgite in a subduction setting. Lithos, 2021, 382-383, 105949.

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109	Compressibility of 2 <i>M</i> ₁ muscovite-paragonite series minerals: A computational study to 6 GPa. American Mineralogist, 2016, 101, 1207-1216.	0.9	3
110	Partial melting and <i>P-T</i> evolution of eclogite-facies metapelitic migmatites from the Egere terrane (Central Hoggar, South Algeria). American Mineralogist, 2021, 106, 1209-1224.	0.9	3
111	Numerical model of crustal accretion and cooling rates of fast-spreading mid-ocean ridges. Geoscientific Model Development, 2013, 6, 1659-1672.	1.3	1
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Geochemical evolution of rodingites during subduction: insights from Cerro del Almirez (southern) Tj ETQq0 0 0 rgBT/Overlock 10 Tf 50

Primary Studies of Taessa-Torak Granitic Massif: Petrography and Mineralogy (Central Hoggar,) Tj ETQq1 1 0.784314.ggBT /Overlock 1