Sanne Cottaar

List of Publications by Year
in descending order

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27 papers	1,195 citations	516710 16 h-index	414414 32 g-index
42 all docs	42 docs citations	42 times ranked	1001 citing authors

#	Article	IF	Citations
1	Cluster analysis of global lower mantle tomography: A new class of structure and implications for chemical heterogeneity. Earth and Planetary Science Letters, 2012, 357-358, 68-77.	4.4	270
2	Morphology of seismically slow lower-mantle structures. Geophysical Journal International, 2016, 207, 1122-1136.	2.4	110
3	An unsually large ULVZ at the base of the mantle near Hawaii. Earth and Planetary Science Letters, 2012, 355-356, 213-222.	4.4	108
4	BurnMan: A lower mantle mineral physics toolkit. Geochemistry, Geophysics, Geosystems, 2014, 15, 1164-1179.	2.5	89
5	Seismically determined elastic parameters for Earthâ€™s outer core. Science Advances, 2018, 4, eaar2538.	10.3	60
6	Depressed mantle discontinuities beneath Iceland: Evidence of a garnet controlled 660 km discontinuity?. Earth and Planetary Science Letters, 2016, 433, 159-168.	4.4	57
7	Observations of changing anisotropy across the southern margin of the African LLSVP. Geophysical Journal International, 2013, 195, 1184-1195.	2.4	55
8	Deformation in the lowermost mantle: From polycrystal plasticity to seismic anisotropy. Earth and Planetary Science Letters, 2011, 306, 33-45.	4.4	54
9	Converted phases from sharp 1000 km depth mid-mantle heterogeneity beneath Western Europe. Earth and Planetary Science Letters, 2017, 459, 196-207.	4.4	48
10	Largeâ€scale mantle discontinuity topography beneath Europe: Signature of akimotoite in subducting slabs. Journal of Geophysical Research: Solid Earth, 2016, 121, 279-292.	3.4	40
11	Synthetic seismic anisotropy models within a slab impinging on the coreâ€“mantle boundary. Geophysical Journal International, 2014, 199, 164-177.	2.4	34
12	Convection in the Earthâ€™s inner core. Physics of the Earth and Planetary Interiors, 2012, 198-199, 67-78.	1.9	32
13	High-pressure, temperature elasticity of Fe- and Al-bearing MgSiO3: Implications for the Earth's lower mantle. Earth and Planetary Science Letters, 2016, 434, 264-273.	4.4	32
14	AFRP20: New Pâ€Wavespeed Model for the African Mantle Reveals Two Wholeâ€Mantle Plumes Below East Africa and Neoproterozoic Modification of the Tanzania Craton. Geochemistry, Geophysics, Geosystems, 2021, 22, e2020GC009302.	2.5	29
15	Crustal Formation on a Spreading Ridge Above a Mantle Plume: Receiver Function Imaging of the Icelandic Crust. Journal of Geophysical Research: Solid Earth, 2018, 123, 5190-5208.	3.4	23
16	X-discontinuity and transition zone structure beneath Hawaii suggests a heterogeneous plume. Earth and Planetary Science Letters, 2019, 527, 115781.	4.4	19
17	Receiver function mapping of mantle transition zone discontinuities beneath Alaska using scaled 3-D velocity corrections. Geophysical Journal International, 2019, 219, 1432-1446.	2.4	18
18	A high-resolution map of Hawaiian ULVZ morphology from ScS phases. Earth and Planetary Science Letters, 2021, 563, 116885.	4.4	17

#	Article	IF	Citations
19	Global receiver function observations of the X-discontinuity reveal recycled basalt beneath hotspots. Earth and Planetary Science Letters, 2021, 561, 116813.	4.4	16
20	Insights Into Deep Mantle Thermochemical Contributions to African Magmatism From Converted Seismic Phases. Geochemistry, Geophysics, Geosystems, 2021, 22, e2020GC009478.	2.5	11
21	The morphology, evolution and seismic visibility of partial melt at the coreâ€“mantle boundary: implications for ULVZs. Geophysical Journal International, 2021, 227, 1028-1059.	2.4	11
22	Kilometer-scale structure on the coreâ€“mantle boundary near Hawaii. Nature Communications, 2022, 13, 2787.	12.8	11
23	Effects of Heatâ€Producing Elements on the Stability of Deep Mantle Thermochemical Piles. Geochemistry, Geophysics, Geosystems, 2020, 21, e2019GC008895.	2.5	9
24	Geochemical Constraints on the Structure of the Earth's Deep Mantle and the Origin of the LLSVPs. Geochemistry, Geophysics, Geosystems, 2021, 22, e2021GC009932.	2.5	6
25	A Refined Approach to Model Anisotropy in the Lowermost Mantle. IOP Conference Series: Materials Science and Engineering, 2018, 375, 012002.	0.6	3
26	The interior of Mars revealed. Science, 2021, 373, 388-389.	12.6	3
27	The Transition Zone Beneath West Argentinaâ€Central Chile Using P â€toâ€•S Converted Waves. Journal of Geophysical Research: Solid Earth, 2020, 125, e2020JB019446.	3.4	0