

Wei Leng

List of Publications by Year in descending order

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Version: 2024-02-01

30
papers

920
citations

516710

16
h-index

477307

29
g-index

31
all docs

31
docs citations

31
times ranked

960
citing authors

#	ARTICLE	IF	CITATIONS
1	A model for the evolution of the Earth's mantle structure since the Early Paleozoic. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	113
2	On the location of plumes and lateral movement of thermochemical structures with high bulk modulus in the 3-D compressible mantle. <i>Geochemistry, Geophysics, Geosystems</i> , 2011, 12, n/a-n/a.	2.5	100
3	Subduction initiation at relic arcs. <i>Geophysical Research Letters</i> , 2015, 42, 7014-7021.	4.0	92
4	A community benchmark for 2-D Cartesian compressible convection in the Earth's mantle. <i>Geophysical Journal International</i> , 2010, 180, 73-87.	2.4	89
5	Controls on plume heat flux and plume excess temperature. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	67
6	Dynamics of subduction initiation with different evolutionary pathways. <i>Geochemistry, Geophysics, Geosystems</i> , 2011, 12, n/a-n/a.	2.5	66
7	Hidden hotspot track beneath the eastern United States. <i>Nature Geoscience</i> , 2013, 6, 963-966.	12.9	56
8	Surface subsidence caused by mantle plumes and volcanic loading in large igneous provinces. <i>Earth and Planetary Science Letters</i> , 2010, 291, 207-214.	4.4	46
9	Viscous heating, adiabatic heating and energetic consistency in compressible mantle convection. <i>Geophysical Journal International</i> , 2008, 173, 693-702.	2.4	43
10	Crustal Footprint of the Hainan Plume Beneath Southeast China. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 3065-3079.	3.4	28
11	Iron-spin transition controls structure and stability of LLSVPs in the lower mantle. <i>Earth and Planetary Science Letters</i> , 2015, 423, 173-181.	4.4	24
12	Implementation and application of adaptive mesh refinement for thermochemical mantle convection studies. <i>Geochemistry, Geophysics, Geosystems</i> , 2011, 12, .	2.5	23
13	Geodynamic modeling of thermal structure of subduction zones. <i>Science China Earth Sciences</i> , 2015, 58, 1070-1083.	5.2	22
14	Dynamics of hidden hotspot tracks beneath the continental lithosphere. <i>Earth and Planetary Science Letters</i> , 2014, 401, 294-300.	4.4	21
15	Shape of thermal plumes in a compressible mantle with depth-dependent viscosity. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	20
16	Constraints on viscous dissipation of plate bending from compressible mantle convection. <i>Earth and Planetary Science Letters</i> , 2010, 297, 154-164.	4.4	19
17	Plume "Tree" Structure Induced by Low-Viscosity Layers in the Upper Mantle. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL086508.	4.0	12
18	The combined effects of post-spinel and post-garnet phase transitions on mantle plume dynamics. <i>Earth and Planetary Science Letters</i> , 2018, 496, 80-88.	4.4	11

#	ARTICLE	IF	CITATIONS
19	Tarim Large Igneous Province Caused by a Wide and Wet Mantle Plume. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2019JB019001.	3.4	10
20	More constraints on internal heating rate of the Earth's mantle from plume observations. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	9
21	Tonga Slab Morphology and Stress Variations Controlled by a Relic Slab: Implications for Deep Earthquakes in the Tongaâ€Fiji Region. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL091331.	4.0	9
22	Subduction Polarity Reversal: Induced or Spontaneous?. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL093201.	4.0	9
23	The Continually Stable Subduction, Ironâ€Spin Transition, and the Formation of LLSVPs From Subducted Oceanic Crust. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2019JB018262.	3.4	6
24	Yanshanian Orogeny During North China's Drifting Away From the Trench: Implications of Numerical Models. <i>Tectonics</i> , 2020, 39, e2020TC006350.	2.8	6
25	Constraints on Mantle Viscosity From Slab Dynamics. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB022329.	3.4	6
26	The Mode of Trench-Parallel Subduction of the Middle Ocean Ridge. <i>Frontiers in Earth Science</i> , 2021, 9, .	1.8	5
27	Progress in numerical modeling of subducting plate dynamics. <i>Science China Earth Sciences</i> , 2018, 61, 1761-1774.	5.2	4
28	Destruction of Cratonic Lithosphere Induced by Oceanic Subduction Initiation. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL089140.	4.0	3
29	Analytical and numerical simulations of uplift processes at the Tibet-Sichuan boundary. <i>Earthquake Science</i> , 2017, 30, 135-143.	0.9	1
30	Evolution of Subduction Cusps From the Perspective of Trench Migration and Slab Morphology. <i>Frontiers in Earth Science</i> , 2021, 9, .	1.8	0