

Peter E Van Keken

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7361520/publications.pdf>

Version: 2024-02-01

50
papers

5,826
citations

159358

30
h-index

197535

49
g-index

54
all docs

54
docs citations

54
times ranked

3721
citing authors

#	ARTICLE	IF	CITATIONS
1	Earth's missing argon paradox resolved by recycling of oceanic crust. <i>Nature Geoscience</i> , 2022, 15, 85-90.	5.4	9
2	A Pointwise Conservative Method for Thermochemical Convection Under the Compressible Anelastic Liquid Approximation. <i>Geochemistry, Geophysics, Geosystems</i> , 2022, 23, .	1.0	2
3	Burying Earth's Primitive Mantle in the Slab Graveyard. <i>Geochemistry, Geophysics, Geosystems</i> , 2021, 22, e2020GC009396.	1.0	16
4	An Exactly Mass Conserving and Pointwise Divergence Free Velocity Method: Application to Compositional Buoyancy Driven Flow Problems in Geodynamics. <i>Geochemistry, Geophysics, Geosystems</i> , 2021, 22, e2020GC009349.	1.0	3
5	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
6	Deep decoupling in subduction zones: Observations and temperature limits. , 2020, 16, 1408-1424.		30
7	A Role for Subducted Oceanic Crust in Generating the Depleted Mid-Ocean Ridge Basalt Mantle. <i>Geochemistry, Geophysics, Geosystems</i> , 2020, 21, e2020GC009148.	1.0	10
8	Thermal conductivity near the bottom of the Earth's lower mantle: Measurements of pyrolite up to 120 GPa and 2500 K. <i>Earth and Planetary Science Letters</i> , 2020, 536, 116161.	1.8	18
9	Subducted oceanic crust as the origin of seismically slow lower-mantle structures. <i>Progress in Earth and Planetary Science</i> , 2020, 7, .	1.1	32
10	Kinetic Models for Healing of the Subduction Interface Based on Observations of Ancient Accretionary Complexes. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 3431-3449.	1.0	17
11	Thermal Structure of the Forearc in Subduction Zones: A Comparison of Methodologies. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 3268-3288.	1.0	33
12	Origins of the terrestrial Hf-Nd mantle array: Evidence from a combined geodynamical-geochemical approach. <i>Earth and Planetary Science Letters</i> , 2019, 518, 26-39.	1.8	26
13	Fluid Migration in a Subducting Viscoelastic Slab. <i>Geochemistry, Geophysics, Geosystems</i> , 2018, 19, 337-355.	1.0	9
14	Evaluating the Resolution of Deep Mantle Plumes in Teleseismic Traveltime Tomography. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 384-400.	1.4	23
15	Analysis of PKP scattering using mantle mixing simulations and axisymmetric 3D waveforms. <i>Physics of the Earth and Planetary Interiors</i> , 2018, 276, 226-233.	0.7	11
16	Mafic High-Pressure Rocks Are Preferentially Exhumed From Warm Subduction Settings. <i>Geochemistry, Geophysics, Geosystems</i> , 2018, 19, 2934-2961.	1.0	78
17	Along-arc variation in short-term slow slip events caused by fluid migration in subduction zones. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 1434-1448.	1.4	10
18	Slab temperature controls on the Tonga double seismic zone and slab mantle dehydration. <i>Science Advances</i> , 2017, 3, e1601755.	4.7	48

#	ARTICLE	IF	CITATIONS
19	Origin of geochemical mantle components: Role of spreading ridges and thermal evolution of mantle. <i>Geochemistry, Geophysics, Geosystems</i> , 2017, 18, 697-734.	1.0	20
20	The cold and relatively dry nature of mantle forearcs in subduction zones. <i>Nature Geoscience</i> , 2017, 10, 333-337.	5.4	134
21	TerraFERMA: The Transparent Finite Element Rapid Model Assembler for multiphysics problems in Earth sciences. <i>Geochemistry, Geophysics, Geosystems</i> , 2017, 18, 769-810.	1.0	24
22	Origin of geochemical mantle components: Role of subduction filter. <i>Geochemistry, Geophysics, Geosystems</i> , 2016, 17, 3289-3325.	1.0	47
23	A 2D tomographic model of the Juan de Fuca plate from accretion at axial seamount to subduction at the Cascadia margin from an active source ocean bottom seismometer survey. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 5859-5879.	1.4	41
24	P- and S-wave delays caused by thermal plumes. <i>Geophysical Journal International</i> , 2016, 206, 1169-1178.	1.0	27
25	Fluid flow in subduction zones: The role of solid rheology and compaction pressure. <i>Earth and Planetary Science Letters</i> , 2014, 401, 261-274.	1.8	391
26	Diverse magmatic effects of subducting a hot slab in SW Japan: Results from forward modeling. <i>Geochemistry, Geophysics, Geosystems</i> , 2014, 15, 691-739.	1.0	78
27	Along-arc variation in the 3D thermal structure around the junction between the Japan and Kurile arcs. <i>Geochemistry, Geophysics, Geosystems</i> , 2014, 15, 2225-2240.	1.0	21
28	Dynamics of plumes in a compressible mantle with phase changes: Implications for phase boundary topography. <i>Physics of the Earth and Planetary Interiors</i> , 2013, 224, 21-31.	0.7	16
29	Thermal petrological controls on the location of earthquakes within subducting plates. <i>Earth and Planetary Science Letters</i> , 2013, 369-370, 178-187.	1.8	145
30	Thermal structure and intermediate-depth seismicity in the Tohoku-Hokkaido subduction zones. <i>Solid Earth</i> , 2012, 3, 355-364.	1.2	36
31	Three-dimensional thermal structure of subduction zones: effects of obliquity and curvature. <i>Solid Earth</i> , 2012, 3, 365-373.	1.2	266
32	The relationship of intermediate- and deep-focus seismicity to the hydration and dehydration of subducting slabs. <i>Earth and Planetary Science Letters</i> , 2012, 349-350, 153-160.	1.8	36
33	Subduction factory: 4. Depth-dependent flux of H ₂ O from subducting slabs worldwide. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	702
34	Synthetic images of dynamically predicted plumes and comparison with a global tomographic model. <i>Earth and Planetary Science Letters</i> , 2011, 311, 351-363.	1.8	28
35	Wavefront healing renders deep plumes seismically invisible. <i>Geophysical Journal International</i> , 2011, 187, 273-277.	1.0	36
36	A community benchmark for 2-D Cartesian compressible convection in the Earth's mantle. <i>Geophysical Journal International</i> , 2010, 180, 73-87.	1.0	89

#	ARTICLE	IF	CITATIONS
37	The global range of subduction zone thermal models. <i>Physics of the Earth and Planetary Interiors</i> , 2010, 183, 73-90.	0.7	1,375
38	Arc Basalt Simulator version 2, a simulation for slab dehydration and fluid-fluxed mantle melting for arc basalts: Modeling scheme and application. <i>Geochemistry, Geophysics, Geosystems</i> , 2009, 10, .	1.0	76
39	Starting laminar plumes: Comparison of laboratory and numerical modeling. <i>Geochemistry, Geophysics, Geosystems</i> , 2009, 10, .	1.0	17
40	Effect of three-dimensional slab geometry on deformation in the mantle wedge: Implications for shear wave anisotropy. <i>Geochemistry, Geophysics, Geosystems</i> , 2008, 9, .	1.0	97
41	A community benchmark for subduction zone modeling. <i>Physics of the Earth and Planetary Interiors</i> , 2008, 171, 187-197.	0.7	187
42	A multiple-system study of the geochemical evolution of the mantle with force-balanced plates and thermochemical effects. <i>Earth and Planetary Science Letters</i> , 2008, 276, 1-13.	1.8	97
43	Stress, strain, and B-type olivine fabric in the fore-arc mantle: Sensitivity tests using high-resolution steady-state subduction zone models. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	83
44	Deep storage of oceanic crust in a vigorously convecting mantle. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	77
45	Dynamics of thermochemical plumes: 1. Plume formation and entrainment of a dense layer. <i>Geochemistry, Geophysics, Geosystems</i> , 2006, 7, n/a-n/a.	1.0	76
46	The thermal structure of subduction zones constrained by seismic imaging: Implications for slab dehydration and wedge flow. <i>Earth and Planetary Science Letters</i> , 2006, 241, 387-397.	1.8	210
47	Thermal structure of the Costa Rica – Nicaragua subduction zone. <i>Physics of the Earth and Planetary Interiors</i> , 2005, 149, 187-200.	0.7	150
48	High-resolution models of subduction zones: Implications for mineral dehydration reactions and the transport of water into the deep mantle. <i>Geochemistry, Geophysics, Geosystems</i> , 2002, 3, 1 of 20-20 of 20.	1.0	371
49	Mantle Mixing: The Generation, Preservation, and Destruction of Chemical Heterogeneity. <i>Annual Review of Earth and Planetary Sciences</i> , 2002, 30, 493-525.	4.6	224
50	A comparison of methods for the modeling of thermochemical convection. <i>Journal of Geophysical Research</i> , 1997, 102, 22477-22495.	3.3	239