

J H Davies

List of Publications by Year in descending order

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38
papers

4,104
citations

394421

19
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345221

36
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docs citations

42
times ranked

3607
citing authors

#	ARTICLE	IF	CITATIONS
1	Influence of Subduction Zone Dynamics on Interface Shear Stress and Potential Relationship With Seismogenic Behavior. <i>Geochemistry, Geophysics, Geosystems</i> , 2021, 22, e2020GC009267.	2.5	9
2	Timescales of successful and failed subduction: insights from numerical modelling. <i>Geophysical Journal International</i> , 2021, 225, 261-276.	2.4	0
3	Controls on the Deepâ€Water Cycle Within Threeâ€Dimensional Mantle Convection Models. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 2199-2213.	2.5	6
4	Towards global SEM mantle convection simulations on polyhedral-based grids. <i>Journal of Computational and Applied Mathematics</i> , 2019, 348, 48-57.	2.0	0
5	Profiling the robustness, efficiency and limits of the forward-adjoint method for 3-D mantle convection modelling. <i>Geophysical Journal International</i> , 2018, 212, 1450-1462.	2.4	10
6	Whole-mantle convection with tectonic plates preserves long-term global patterns of upper mantle geochemistry. <i>Scientific Reports</i> , 2017, 7, 1870.	3.3	23
7	Breaking supercontinents; no need to choose between passive or active. <i>Solid Earth</i> , 2017, 8, 817-825.	2.8	11
8	Global-scale modelling of melting and isotopic evolution of Earth's mantle: melting modules for TERRA. <i>Geoscientific Model Development</i> , 2016, 9, 1399-1411.	3.6	6
9	Interaction of subducted slabs with the mantle transitionâ€zone: A regime diagram from 2â€D thermoâ€mechanical models with a mobile trench and an overriding plate. <i>Geochemistry, Geophysics, Geosystems</i> , 2014, 15, 1739-1765.	2.5	146
10	Global map of solid Earth surface heat flow. <i>Geochemistry, Geophysics, Geosystems</i> , 2013, 14, 4608-4622.	2.5	228
11	A hierarchical mesh refinement technique for global 3-D spherical mantle convection modelling. <i>Geoscientific Model Development</i> , 2013, 6, 1095-1107.	3.6	36
12	Generic polyhedron grid generation for solving partial differential equations on spherical surfaces. <i>Computers and Geosciences</i> , 2012, 39, 11-17.	4.2	3
13	Influence of the Ringwoodite-Perovskite transition on mantle convection in spherical geometry as a function of Clapeyron slope and Rayleigh number. <i>Solid Earth</i> , 2011, 2, 315-326.	2.8	20
14	Earth's surface heat flux. <i>Solid Earth</i> , 2010, 1, 5-24.	2.8	352
15	Thermally-driven mantle plumes reconcile multiple hot-spot observations. <i>Earth and Planetary Science Letters</i> , 2009, 278, 50-54.	4.4	76
16	Nusseltâ€Rayleigh number scaling for spherical shell Earth mantle simulation up to a Rayleigh number of. <i>Physics of the Earth and Planetary Interiors</i> , 2009, 176, 132-141.	1.9	38
17	Did a mega-collision dry Venus' interior?. <i>Earth and Planetary Science Letters</i> , 2008, 268, 376-383.	4.4	19
18	Investigations into the applicability of adaptive finite element methods to two-dimensional infinite Prandtl number thermal and thermochemical convection. <i>Geochemistry, Geophysics, Geosystems</i> , 2007, 8, n/a-n/a.	2.5	31

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19	Are splash plumes the origin of minor hotspots?. <i>Geology</i> , 2006, 34, 349.	4.4	48
20	Distributed Storage of High-Volume Environmental Simulation Data: Mantle Modelling. , 2006, , .		0
21	Steady plumes produced by downwellings in Earth-like vigor spherical whole mantle convection models. <i>Geochemistry, Geophysics, Geosystems</i> , 2005, 6, n/a-n/a.	2.5	13
22	Numerical investigation of layered convection in a three-dimensional shell with application to planetary mantles. <i>Geochemistry, Geophysics, Geosystems</i> , 2004, 5, n/a-n/a.	2.5	26
23	Constructing a Geodynamic A Priori Seismic (GAPS) velocity model of upper mantle heterogeneity. <i>Geochemistry, Geophysics, Geosystems</i> , 2004, 5, .	2.5	3
24	Breaking plates. <i>Nature</i> , 2002, 418, 736-737.	27.8	6
25	Tomographic images of a mantle circulation model. <i>Geophysical Research Letters</i> , 2001, 28, 77-80.	4.0	25
26	Seismically â€œFastâ€•Geodynamic Mantle Models. <i>Geophysical Research Letters</i> , 2001, 28, 73-76.	4.0	14
27	Tomographic imaging of multiple mantle plumes in the uppermost lower mantle. <i>Geophysical Journal International</i> , 2001, 147, 88-92.	2.4	23
28	Simple analytic model for subduction zone thermal structure. <i>Geophysical Journal International</i> , 1999, 139, 823-828.	2.4	49
29	The role of hydraulic fractures and intermediate-depth earthquakes in generating subduction-zone magmatism. <i>Nature</i> , 1999, 398, 142-145.	27.8	157
30	Buoyancy rather than rheology controls the thickness of the overriding mechanical lithosphere at subduction zones. <i>Geophysical Research Letters</i> , 1999, 26, 3037-3040.	4.0	15
31	Thermal Controls on Slab Breakoff and the Rise of High-Pressure Rocks During Continental Collisions. <i>Petrology and Structural Geology</i> , 1998, , 97-115.	0.5	16
32	Slab breakoff: A model of lithosphere detachment and its test in the magmatism and deformation of collisional orogens. <i>Earth and Planetary Science Letters</i> , 1995, 129, 85-102.	4.4	1,337
33	Slab breakoff: A model for syncollisional magmatism and tectonics in the Alps. <i>Tectonics</i> , 1995, 14, 120-131.	2.8	642
34	Chapter 9 Lateral Water Transport across a Dynamic Mantle Wedge: A Model for Subduction Zone Magmatism. <i>International Geophysics</i> , 1994, 57, 197-221.	0.6	6
35	Physical model of source region of subduction zone volcanics. <i>Journal of Geophysical Research</i> , 1992, 97, 2037-2070.	3.3	527
36	Lower bound estimate of average earthquake mislocation from variance of travel-time residuals. <i>Physics of the Earth and Planetary Interiors</i> , 1992, 75, 89-101.	1.9	5

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37	Spectra of mantle shear wave velocity structure. <i>Geophysical Journal International</i> , 1992, 108, 865-882.	2.4	34
38	Stochastic analysis of global traveltime data: mantle heterogeneity and random errors in the ISC data. <i>Geophysical Journal International</i> , 1990, 102, 25-43.	2.4	137