Mark A Richards

List of Publications by Year
in descending order

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Version: 2024-02-01

43 papers	4,665 citations	159585 30 h-index	254184 43 g-index
45 all docs	45 docs citations	45 times ranked	2545 citing authors

#	Article	IF	Citations
1	The Magmatic Architecture of Continental Flood Basalts I: Observations From the Deccan Traps. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB021808.	3.4	11
2	The Magmatic Architecture of Continental Flood Basalts: 2. A New Conceptual Model. Journal of Geophysical Research: Solid Earth, 2021, 126, .	3.4	6
3	Elastic Flexure of Young, Overlapping Basaltic Lava Flows Offshore the GalÃ¡pagos and Hawaiian Islands: Observations, Modeling, and Thermal/Chronological Analysis. Geochemistry, Geophysics, Geosystems, 2020, 21, e2019GC008864.	2.5	2
4	Volatile Degassing From Magma Chambers as a Control on Volcanic Eruptions. Journal of Geophysical Research: Solid Earth, 2019, 124, 7869-7901.	3.4	24
5	Seismic imaging of Deccan-related lava flows at the K-T boundary, deepwater west India. The Leading Edge, 2019, 38, 286-290.	0.7	9
6	A seismically induced onshore surge deposit at the KPg boundary, North Dakota. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 8190-8199.	7.1	81
7	The Cathles Parameter (Ct): A Geodynamic Definition of the Asthenosphere and Implications for the Nature of Plate Tectonics. Geochemistry, Geophysics, Geosystems, 2018, 19, 4858-4875.	2.5	37
8	Emergence/Subsidence Histories Along the Carnegie and Cocos Ridges and Their Bearing Upon Biological Speciation in the GalÃ¡pagos. Geochemistry, Geophysics, Geosystems, 2018, 19, 4099-4129.	2.5	9
9	Rough versus smooth topography along oceanic hotspot tracks: Observations and scaling analysis. Geophysical Research Letters, 2017, 44, 4074-4081.	4.0	12
10	Plumeâ€ridge interaction via melt channelization at <scp>G</scp>alÃ¡pagos and other nearâ€ridge hotspot provinces. Geochemistry, Geophysics, Geosystems, 2017, 18, 1711-1738.	2.5	20
11	Differences in STEM doctoral publication by ethnicity, gender and academic field at a large public research university. PLoS ONE, 2017, 12, e0174296.	2.5	47
12	Tomography reveals buoyant asthenosphere accumulating beneath the Juan de Fuca plate. Science, 2016, 353, 1406-1408.	12.6	58
13	Evidence and models for lower crustal flow beneath the <scp>G</scp>alÃ¡pagos platform. Geochemistry, Geophysics, Geosystems, 2016, 17, 113-142.	2.5	6
14	Triggering of the largest Deccan eruptions by the Chicxulub impact. Bulletin of the Geological Society of America, 2015, 127, 1507-1520.	3.3	149
15	State shift in Deccan volcanism at the Cretaceous-Paleogene boundary, possibly induced by impact. Science, 2015, 350, 76-78.	12.6	300
16	Mantle flow geometry from ridge to trench beneath the Gordaâ€“Juan de Fuca plate system. Nature Geoscience, 2015, 8, 965-968.	12.9	45
17	Petrological interpretation of deep crustal intrusive bodies beneath oceanic hotspot provinces. Geochemistry, Geophysics, Geosystems, 2013, 14, 604-619.	2.5	38
18	Nazcaâ€“South America interactions and the late Eoceneâ€“late Oligocene flatâ€slab episode in the central Andes. Tectonics, 2012, 31, .	2.8	49

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19	On the evolution of large ultramafic magma chambers and timescales for flood basalt eruptions. Journal of Geophysical Research, 2011, 116, .	3.3	38
20	Deep crustal structure beneath large igneous provinces and the petrologic evolution of flood basalts. Geochemistry, Geophysics, Geosystems, 2010, 11, .	2.5	64
21	On the resolution of radial viscosity structure in modelling long-wavelength postglacial rebound data. Geophysical Journal International, 2009, 179, 1516-1526.	2.4	53
22	A magmatic loading model for coronae on Venus. Journal of Geophysical Research, 2007, 112, .	3.3	37
23	A conceptual model for the relationship between coronae and large-scale mantle dynamics on Venus. Journal of Geophysical Research, 2003, 108, .	3.3	56
24	Effects of depth-dependent viscosity and plate motions on maintaining a relatively uniform mid-ocean ridge basalt reservoir in whole mantle flow. Journal of Geophysical Research, 2002, 107, ETG 5-1.	3.3	25
25	Role of a low-viscosity zone in stabilizing plate tectonics: Implications for comparative terrestrial planetology. Geochemistry, Geophysics, Geosystems, 2001, 2, n/a-n/a.	2.5	185
26	Introduction: Plate Tectonics and Mantle Convection Three Decades Later. Geophysical Monograph Series, 2000, , 1-4.	0.1	1
27	The Relation between mantle dynamics and plate tectonics: A Primer. Geophysical Monograph Series, 2000, , 5-46.	0.1	89
28	Mantle convection and plate motion history: Toward general circulation models. Geophysical Monograph Series, 2000, , 289-307.	0.1	4
29	Prospecting for Jurassic slabs. Nature, 1999, 397, 203-204.	27.8	15
30	A sensitivity study of three-dimensional spherical mantle convection at 108Rayleigh number: Effects of depth-dependent viscosity, heating mode, and an endothermic phase change. Journal of Geophysical Research, 1997, 102, 11991-12007.	3.3	231
31	The geoid constraint in global geodynamics: viscosity structure, mantle heterogeneity models and boundary conditions. Geophysical Journal International, 1997, 131, 1-8.	2.4	95
32	Petrological models of magma evolution and deep crustal structure beneath hotspots and flood basalt provinces. Earth and Planetary Science Letters, 1996, 143, 81-94.	4.4	124
33	The origin of large scale structure in mantle convection: Effects of plate motions and viscosity stratification. Geophysical Research Letters, 1996, 23, 2987-2990.	4.0	90
34	Effect of depth-dependent viscosity on the planform of mantle convection. Nature, 1996, 379, 436-438.	27.8	278
35	The fluid dynamics of plume-ridge and plume-plate interactions: An experimental investigation. Earth and Planetary Science Letters, 1995, 129, 171-182.	4.4	69
36	Cenozoic plate driving forces. Geophysical Research Letters, 1995, 22, 1317-1320.	4.0	115

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37	Lithospheric structure and compensation mechanisms of the GalÃ¡pagos Archipelago. Journal of Geophysical Research, 1994, 99, 6711.	3.3	84
38	Numerical investigations of the mantle plume initiation model for flood basalt events. Journal of Geophysical Research, 1994, 99, 13813-13833.	3.3	201
39	Large-scale mantle convection and the history of subduction. Nature, 1992, 355, 437-440.	27.8	291
40	Dynamically supported geoid highs over hotspots: Observation and theory. Journal of Geophysical Research, 1988, 93, 7690-7708.	3.3	209
41	A dynamic model of Venus's gravity field. Geophysical Research Letters, 1986, 13, 14-17.	4.0	90
42	Lower mantle heterogeneity, dynamic topography and the geoid. Nature, 1985, 313, 541-545.	27.8	722
43	Geoid anomalies in a dynamic Earth. Journal of Geophysical Research, 1984, 89, 5987-6002.	3.3	593