

Ian Bastow

List of Publications by Year in descending order

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83
papers

4,328
citations

87888

38
h-index

123424

61
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91
all docs

91
docs citations

91
times ranked

2676
citing authors

#	ARTICLE	IF	CITATIONS
1	Magma-assisted rifting in Ethiopia. <i>Nature</i> , 2005, 433, 146-148.	27.8	302
2	Lateral magma flow in mafic sill complexes. , 2016, 12, 809-841.		209
3	Upper mantle seismic structure beneath the Ethiopian hot spot: Rifting at the edge of the African low-velocity anomaly. <i>Geochemistry, Geophysics, Geosystems</i> , 2008, 9, .	2.5	178
4	Upper-mantle seismic structure in a region of incipient continental breakup: northern Ethiopian rift. <i>Geophysical Journal International</i> , 2005, 162, 479-493.	2.4	170
5	Pulses of deformation reveal frequently recurring shallow magmatic activity beneath the Main Ethiopian Rift. <i>Geochemistry, Geophysics, Geosystems</i> , 2011, 12, n/a-n/a.	2.5	135
6	The protracted development of the continent-ocean transition in Afar. <i>Nature Geoscience</i> , 2011, 4, 248-250.	12.9	134
7	Elevated mantle temperature beneath East Africa. <i>Geology</i> , 2012, 40, 27-30.	4.4	132
8	Melt-induced seismic anisotropy and magma assisted rifting in Ethiopia: Evidence from surface waves. <i>Geochemistry, Geophysics, Geosystems</i> , 2010, 11, .	2.5	111
9	Lithospheric modification during crustal extension in the Main Ethiopian Rift. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	110
10	Precambrian crustal evolution: Seismic constraints from the Canadian Shield. <i>Earth and Planetary Science Letters</i> , 2010, 297, 655-666.	4.4	102
11	Volcanism in the Afar Rift sustained by decompression melting with minimal plume influence. <i>Nature Geoscience</i> , 2012, 5, 406-409.	12.9	100
12	Caveats on tomographic images. <i>Terra Nova</i> , 2013, 25, 259-281.	2.1	94
13	Lower crustal earthquakes near the Ethiopian rift induced by magmatic processes. <i>Geochemistry, Geophysics, Geosystems</i> , 2009, 10, .	2.5	85
14	Melting during late-stage rifting in Afar is hot and deep. <i>Nature</i> , 2013, 499, 70-73.	27.8	85
15	Crustal tomographic imaging of a transitional continental rift: the Ethiopian rift. <i>Geophysical Journal International</i> , 2008, 172, 1033-1048.	2.4	80
16	Insights into extensional processes during magma assisted rifting: Evidence from aligned scoria cones. <i>Journal of Volcanology and Geothermal Research</i> , 2011, 201, 83-96.	2.1	79
17	Mantle upwelling and initiation of rift segmentation beneath the Afar Depression. <i>Geology</i> , 2013, 41, 635-638.	4.4	76
18	Mantle upwellings, melt migration and the rifting of Africa: insights from seismic anisotropy. <i>Geological Society Special Publication</i> , 2006, 259, 55-72.	1.3	72

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19	The development of extension and magmatism in the Red Sea rift of Afar. <i>Tectonophysics</i> , 2013, 607, 98-114.	2.2	72
20	Crustal Structure of Active Deformation Zones in Africa: Implications for Global Crustal Processes. <i>Tectonics</i> , 2017, 36, 3298-3332.	2.8	72
21	Crustal structure of the northern Main Ethiopian Rift from receiver function studies. <i>Geological Society Special Publication</i> , 2006, 259, 253-267.	1.3	71
22	Towards a better understanding of African topography: a review of passive-source seismic studies of the African crust and upper mantle. <i>Geological Society Special Publication</i> , 2011, 357, 343-371.	1.3	67
23	The origin of along-rift variations in faulting and magmatism in the Ethiopian Rift. <i>Tectonics</i> , 2015, 34, 464-477.	2.8	65
24	The magma-assisted removal of Arabia in Afar: Evidence from dike injection in the Ethiopian rift captured using InSAR and seismicity. <i>Tectonics</i> , 2011, 30, .	2.8	62
25	Thermal models of dyke intrusion during development of continent-ocean transition. <i>Earth and Planetary Science Letters</i> , 2014, 385, 145-153.	4.4	62
26	Seismic imaging of the lithosphere beneath Hudson Bay: Episodic growth of the Laurentian mantle keel. <i>Earth and Planetary Science Letters</i> , 2013, 373, 179-193.	4.4	61
27	The development of magmatism along the Cameroon Volcanic Line: Evidence from teleseismic receiver functions. <i>Tectonics</i> , 2012, 31, .	2.8	59
28	The development of magmatism along the Cameroon Volcanic Line: Evidence from seismicity and seismic anisotropy. <i>Journal of Geophysical Research: Solid Earth</i> , 2014, 119, 4233-4252.	3.4	55
29	Structure and dynamics of surface uplift induced by incremental sill emplacement. <i>Geology</i> , 2017, 45, 431-434.	4.4	52
30	Seismic Imaging of the Alaska Subduction Zone: Implications for Slab Geometry and Volcanism. <i>Geochemistry, Geophysics, Geosystems</i> , 2018, 19, 4541-4560.	2.5	52
31	Relative arrival-time upper-mantle tomography and the elusive background mean. <i>Geophysical Journal International</i> , 2012, 190, 1271-1278.	2.4	48
32	Control of Pre-rift Lithospheric Structure on the Architecture and Evolution of Continental Rifts: Insights From the Main Ethiopian Rift, East Africa. <i>Tectonics</i> , 2018, 37, 477-496.	2.8	48
33	The protracted development of focused magmatic intrusion during continental rifting. <i>Tectonics</i> , 2014, 33, 875-897.	2.8	47
34	Crustal structure beneath Hudson Bay from ambient-noise tomography: implications for basin formation. <i>Geophysical Journal International</i> , 2011, 184, 65-82.	2.4	46
35	The August 2002 earthquake sequence in north Afar: Insights into the neotectonics of the Danakil microplate. <i>Journal of African Earth Sciences</i> , 2007, 48, 70-79.	2.0	45
36	Mantle flow geometry from ridge to trench beneath the Gorda-Juan de Fuca plate system. <i>Nature Geoscience</i> , 2015, 8, 965-968.	12.9	45

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37	Subduction geometry beneath south central Alaska and its relationship to volcanism. <i>Geophysical Research Letters</i> , 2016, 43, 9509-9517.	4.0	44
38	Spatial and temporal constraints on sources of seismic anisotropy: Evidence from the Scottish highlands. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	43
39	Precambrian plate tectonics: Seismic evidence from northern Hudson Bay, Canada. <i>Geology</i> , 2011, 39, 91-94.	4.4	43
40	Characterizing Broadband Seismic Noise in Central London. <i>Seismological Research Letters</i> , 2017, 88, 113-124.	1.9	38
41	A reappraisal of the H ₀ stacking technique: implications for global crustal structure. <i>Geophysical Journal International</i> , 2019, 219, 1491-1513.	2.4	36
42	Locating microseismic events using borehole data. <i>Geophysical Prospecting</i> , 2014, 62, 34-49.	1.9	35
43	Three billion years of crustal evolution in eastern Canada: Constraints from receiver functions. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 788-811.	3.4	35
44	Implications of a simple mantle transition zone beneath cratonic North America. <i>Earth and Planetary Science Letters</i> , 2011, 312, 28-36.	4.4	34
45	The Ethiopia Afar Geoscientific Lithospheric Experiment (EAGLE): Probing the transition from continental rifting to incipient seafloor spreading. , 2011, , .		34
46	Subduction beneath Laurentia modified the eastern North American cratonic edge: Evidence from <i>P</i> wave and <i>S</i> wave tomography. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 5013-5030.	3.4	33
47	The Role of Variable Slab Dip in Driving Mantle Flow at the Eastern Edge of the Alaskan Subduction Margin: Insights From Shear Wave Splitting. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 2433-2448.	2.5	32
48	<i>P</i> wave tomography of eastern North America: Evidence for mantle evolution from Archean to Phanerozoic, and modification during subsequent hot spot tectonism. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	31
49	Crustal anisotropy beneath Hudson Bay from ambient noise tomography: Evidence for post-orogenic lower crustal flow?. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	31
50	Magma-induced axial subsidence during final-stage rifting: Implications for the development of seaward-dipping reflectors. , 2015, 11, 563-571.		31
51	The Development of Late-Stage Continental Breakup: Seismic Reflection and Borehole Evidence from the Danakil Depression, Ethiopia. <i>Tectonics</i> , 2018, 37, 2848-2862.	2.8	30
52	The stratigraphic record of prebreakup geodynamics: Evidence from the Barrow Delta, offshore Northwest Australia. <i>Tectonics</i> , 2016, 35, 1935-1968.	2.8	29
53	AFRP20: New <i>P</i> -Wavespeed Model for the African Mantle Reveals Two Whole-Mantle Plumes Below East Africa and Neoproterozoic Modification of the Tanzania Craton. <i>Geochemistry, Geophysics, Geosystems</i> , 2021, 22, e2020GC009302.	2.5	29
54	A tale of two orogens: Crustal processes in the Proterozoic Trans-Hudson and Grenville Orogens, eastern Canada. <i>Tectonics</i> , 2017, 36, 1633-1659.	2.8	28

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55	Seismic Tomographic Imaging of the Eastern Mediterranean Mantle: Implications for Terminal-Stage Subduction, the Uplift of Anatolia, and the Development of the North Anatolian Fault. <i>Geochemistry, Geophysics, Geosystems</i> , 2020, 21, e2020GC009009.	2.5	23
56	Upper mantle anisotropy of the Borborema Province, NE Brazil: Implications for intra-plate deformation and sub-cratonic asthenospheric flow. <i>Tectonophysics</i> , 2015, 657, 81-93.	2.2	20
57	Seismic anisotropy of Precambrian lithosphere: Insights from Rayleigh wave tomography of the eastern Superior Craton. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 3754-3775.	3.4	20
58	Variable modification of continental lithosphere during the Proterozoic Grenville orogeny: Evidence from teleseismic P-wave tomography. <i>Earth and Planetary Science Letters</i> , 2019, 525, 115763.	4.4	20
59	Seismological structure of the 1.8 Ga Trans-Hudson Orogen of North America. <i>Geochemistry, Geophysics, Geosystems</i> , 2016, 17, 2421-2433.	2.5	19
60	The Hudson Bay Lithospheric Experiment (HuBLE): insights into Precambrian plate tectonics and the development of mantle keels. <i>Geological Society Special Publication</i> , 2015, 389, 41-67.	1.3	18
61	Lithosphere-asthenosphere interaction beneath Ireland from joint inversion of teleseismic P-wave delay times and GRACE gravity. <i>Geophysical Journal International</i> , 2011, 184, 1379-1396.	2.4	16
62	Variability and origin of seismic anisotropy across eastern Canada: Evidence from shear wave splitting measurements. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 8404-8421.	3.4	16
63	The Seismic Moment and Seismic Efficiency of Small Impacts on Mars. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006540.	3.6	16
64	The formation of Laurentia: Evidence from shear wave splitting. <i>Earth and Planetary Science Letters</i> , 2017, 479, 170-178.	4.4	15
65	Lithospheric deformation in the Canadian Appalachians: evidence from shear wave splitting. <i>Geophysical Journal International</i> , 2016, 206, 1273-1280.	2.4	14
66	Body-Wave Tomographic Imaging of the Turkana Depression: Implications for Rift Development and Plume-Lithosphere Interactions. <i>Geochemistry, Geophysics, Geosystems</i> , 2021, 22, e2021GC009782.	2.5	14
67	Nature of the Moho beneath the Scottish Highlands from a receiver function perspective. <i>Tectonophysics</i> , 2009, 479, 214-222.	2.2	12
68	Upper mantle deformation signatures of craton-orogen interaction in the Carpathian-Pannonian region from SKS anisotropy analysis. <i>Geophysical Journal International</i> , 2020, 220, 2105-2118.	2.4	12
69	From Relative to Absolute Teleseismic Travel Times: The Absolute Arrival-Time Recovery Method (AARM). <i>Bulletin of the Seismological Society of America</i> , 2017, 107, 2511-2520.	2.3	11
70	Precambrian Plate Tectonics in Northern Hudson Bay: Evidence From P- and S- Wave Seismic Tomography and Analysis of Source Side Effects in Relative Arrival-Time Data Sets. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 5690-5709.	3.4	11
71	A multicomponent Isabella anomaly: Resolving the physical state of the Sierra Nevada upper mantle from Vp/Vs anisotropy tomography. , 2019, 15, 2018-2042.		11
72	Lateral Magma Flow in Mafic Sill-complexes. <i>Acta Geologica Sinica</i> , 2016, 90, 4-5.	1.4	10

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73	Rift-Related Morphology of the Afar Depression. <i>World Geomorphological Landscapes</i> , 2015, , 251-274.	0.3	9
74	The Hudson Bay Lithospheric Experiment. <i>Astronomy and Geophysics</i> , 2011, 52, 6.21-6.24.	0.2	8
75	Nature of the Cuvier Abyssal Plain crust, offshore NW Australia. <i>Journal of the Geological Society</i> , 2021, 178, .	2.1	8
76	The Influence of the North Anatolian Fault and a Fragmenting Slab Architecture on Upper Mantle Seismic Anisotropy in the Eastern Mediterranean. <i>Geochemistry, Geophysics, Geosystems</i> , 2021, 22, e2021GC009896.	2.5	8
77	The crustal structure of the Anatolian Plate from receiver functions and implications for the uplift of the central and eastern Anatolian plateaus. <i>Geophysical Journal International</i> , 2022, 229, 1041-1062.	2.4	8
78	CANa€HK: An a Priori Crustal Model for the Canadian Shield. <i>Seismological Research Letters</i> , 2015, 86, 1374-1382.	1.9	6
79	The development of seismic anisotropy below south-central Alaska: evidence from local earthquake shear wave splitting. <i>Geophysical Journal International</i> , 2021, 225, 548-554.	2.4	6
80	Seismicity and Crustal Structure of the Southern Main Ethiopian Rift: New Evidence From Lake Abaya. <i>Geochemistry, Geophysics, Geosystems</i> , 2021, 22, e2021GC009831.	2.5	6
81	Monitoring the Earthquake Activity in an Area with Shale Gas Potential in Southeastern New Brunswick, Canada. <i>Seismological Research Letters</i> , 2015, 86, 1068-1077.	1.9	5
82	Stratigraphic record of continental breakup, offshore NW Australia. <i>Basin Research</i> , 2022, 34, 1220-1243.	2.7	5
83	Peering beneath the Canadian crust. <i>Astronomy and Geophysics</i> , 2016, 57, 6.24-6.27.	0.2	2