Barry E Parsons

List of Publications by Year
in descending order

114 papers	13,035 citations	18482 62 h-index	22832 112 g-index
117 all docs	117 docs citations	117 times ranked	5974 citing authors

#	Article	IF	Citations
1	An analysis of the variation of ocean floor bathymetry and heat flow with age. Journal of Geophysical Research, 1977, 82, 803-827.	3.3	2,489
2	Toward mapping surface deformation in three dimensions using InSAR. Geophysical Research Letters, 2004, 31, .	4.0	560
3	Mantle convection and the thermal structure of the plates. Journal of Geophysical Research, 1978, 83, 4485-4496.	3.3	501
4	Oceans and continents: Similarities and differences in the mechanisms of heat loss. Journal of Geophysical Research, 1981, 86, 11535-11552.	3.3	349
5	On the interaction of two scales of convection in the mantle. Journal of Geophysical Research, 1975, 80, 2529-2541.	3.3	338
6	InSAR Observations of Low Slip Rates on the Major Faults of Western Tibet. Science, 2004, 305, 236-239.	12.6	305
7	Multi-interferogram method for measuring interseismic deformation: Denali Fault, Alaska. Geophysical Journal International, 2007, 170, 1165-1179.	2.4	293
8	Surface displacements and source parameters of the 2003 Bam (Iran) earthquake from Envisat advanced synthetic aperture radar imagery. Journal of Geophysical Research, 2005, 110, .	3.3	240
9	The relationship between surface topography, gravity anomalies, and temperature structure of convection. Journal of Geophysical Research, 1983, 88, 1129-1144.	3.3	210
10	InSAR slip rate determination on the Altyn Tagh Fault, northern Tibet, in the presence of topographically correlated atmospheric delays. Geophysical Research Letters, 2008, 35, .	4.0	202
11	Crustal strain in central Greece from repeated GPS measurements in the interval 1989-1997. Geophysical Journal International, 1998, 135, 195-214.	2.4	188
12	The motion of crustal blocks driven by flow of the lower lithosphere and implications for slip rates of continental strike-slip faults. Nature, 1998, 391, 655-659.	27.8	185
13	Comparison of long-wavelength residual elevation and free air gravity anomalies in the North Atlantic and possible implications for the thickness of the lithospheric plate. Journal of Geophysical Research, 1975, 80, 1031-1052.	3.3	181
14	Measurement of interseismic strain accumulation across the North Anatolian Fault by satellite radar interferometry. Geophysical Research Letters, 2001, 28, 2117-2120.	4.0	178
15	The 2009 L'Aquila earthquake (central Italy): A source mechanism and implications for seismic hazard. Geophysical Research Letters, 2009, 36, .	4.0	174
16	Causes and consequences of the relation between area and age of the ocean floor. Journal of Geophysical Research, 1982, 87, 289-302.	3.3	173
17	Geodetic determination of tectonic deformation in central Greece from 1900 to 1988. Nature, 1991, 350, 124-129.	27.8	172
18	The 2003 Bam (Iran) earthquake: Rupture of a blind strike-slip fault. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	152

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19	Crustal deformation during 1994-1998 due to oblique continental collision in the central Southern Alps, New Zealand, and implications for seismic potential of the Alpine fault. Journal of Geophysical Research, 1999, 104, 25233-25255.	3.3	151
20	Deformation of western Turkey from a combination of permanent and campaign GPS data: Limits to blockâ€like behavior. Journal of Geophysical Research, 2009, 114, .	3.3	148
21	Extension on the Tibetan plateau: recent normal faulting measured by InSAR and body wave seismology. Geophysical Journal International, 2010, 183, 503-535.	2.4	146
22	Planform of mantle convection beneath the Pacific Ocean. Nature, 1980, 288, 442-446.	27.8	145
23	Source parameters of the 1 October 1995 Dinar (Turkey) earthquake from SAR interferometry and seismic bodywave modelling. Earth and Planetary Science Letters, 1999, 172, 23-37.	4.4	144
24	The 1998 March 14 Fandoqa earthquake (Mw6.6) in Kerman province, southeast Iran: re-rupture of the 1981 Sirch earthquake fault, triggering of slip on adjacent thrusts and the active tectonics of the Gowk fault zone. Geophysical Journal International, 2001, 146, 371-398.	2.4	144
25	A new velocity field for Greece: Implications for the kinematics and dynamics of the Aegean. Journal of Geophysical Research, 2010, 115, .	3.3	144
26	The 1994 Sefidabeh (eastern Iran) earthquakes revisited: new evidence from satellite radar interferometry and carbonate dating about the growth of an active fold above a blind thrust fault. Geophysical Journal International, 2006, 164, 202-217.	2.4	143
27	A relation between the driving force and geoid anomaly associated with mid-ocean ridges. Earth and Planetary Science Letters, 1980, 51, 445-450.	4.4	141
28	Post-seismic motion following the 1997 Manyi (Tibet) earthquake: InSAR observations and modelling. Geophysical Journal International, 2007, 169, 1009-1027.	2.4	141
29	Displacement field and slip distribution of the 2005 Kashmir earthquake from SAR imagery. Geophysical Research Letters, 2006, 33, .	4.0	138
30	Geodetic strain of Greece in the interval 1892-1992. Journal of Geophysical Research, 1997, 102, 24571-24588.	3.3	128
31	Evolution of Santorini Volcano dominated by episodic and rapid fluxes of melt from depth. Nature Geoscience, 2012, 5, 749-754.	12.9	127
32	Venus Tectonics: Initial Analysis from Magellan. Science, 1991, 252, 297-312.	12.6	118
33	Triggered slip: Observations of the 17 August 1999 Izmit (Turkey) Earthquake using radar interferometry. Geophysical Research Letters, 2001, 28, 1079-1082.	4.0	110
34	Highâ€Resolution Surface Velocities and Strain for Anatolia From Sentinelâ€1 InSAR and GNSS Data. Geophysical Research Letters, 2020, 47, e2020GL087376.	4.0	108
35	Slip in the 2010â€“2011 Canterbury earthquakes, New Zealand. Journal of Geophysical Research, 2012, 117, .	3.3	103
36	The rates of plate creation and consumption. Geophysical Journal International, 1981, 67, 437-448.	2.4	100

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37	Heat flow observations on the Bermuda Rise and thermal models of midplate swells. Journal of Geophysical Research, 1986, 91, 3701-3723.	3.3	96
38	The Reykjanes Ridge: structure and tectonics of a hot-spot-influenced, slow-spreading ridge, from multibeam bathymetry, gravity and magnetic investigations. Earth and Planetary Science Letters, 1998, 160, 463-478.	4.4	96
39	Geodetic estimate of seismic hazard in the Gulf of Korinthos. Geophysical Research Letters, 1997, 24, 1303-1306.	4.0	94
40	Seismotectonic, rupture process, and earthquake-hazard aspects of the 2003 December 26 Bam, Iran, earthquake. Geophysical Journal International, 2006, 166, 1270-1292.	2.4	94
41	Mesozoic magnetic lineations in the Mozambique Basin. Earth and Planetary Science Letters, 1979, 43, 260-264.	4.4	88
42	Eocene to recent development of the South-west Indian Ridge, a consequence of the evolution of the Indian Ocean Triple Junction. Geophysical Journal of the Royal Astronomical Society, 1981, 64, 587-604.	0.2	87
43	Fault identification for buried strike-slip earthquakes using InSAR: The 1994 and 2004 Al Hoceima, Morocco earthquakes. Geophysical Journal International, 2006, 166, 1347-1362.	2.4	86
44	The Origin of Outer Topographic Rises Associated with Trenches. Geophysical Journal International, 1976, 45, 707-712.	2.4	85
45	The 2010M_W6.8 Yushu (Qinghai, China) earthquake: Constraints provided by InSAR and body wave seismology. Journal of Geophysical Research, 2011, 116, .	3.3	84
46	Features on Venus generated by plate boundary processes. Journal of Geophysical Research, 1992, 97, 13533-13544.	3.3	82
47	The Indian Ocean Triple Junction. Journal of Geophysical Research, 1980, 85, 4723-4739.	3.3	81
48	Crustal deformation of the Marlborough Fault Zone in the South Island of New Zealand: Geodetic constraints over the interval 1982-1994. Journal of Geophysical Research, 1998, 103, 30147-30165.	3.3	81
49	Geodetic investigation of the 13 May 1995 Kozani-Grevena (Greece) Earthquake. Geophysical Research Letters, 1997, 24, 707-710.	4.0	80
50	The 2011 Mw 7.1 Van (Eastern Turkey) earthquake. Journal of Geophysical Research: Solid Earth, 2013, 118, 1619-1637.	3.4	80
51	The Dahuiyeh (Zarand) earthquake of 2005 February 22 in central Iran: reactivation of an intramountain reverse fault. Geophysical Journal International, 2006, 164, 137-148.	2.4	79
52	Fault slip in the 1997 Manyi, Tibet earthquake from linear elastic modelling of InSAR displacements. Geophysical Journal International, 2007, 169, 988-1008.	2.4	78
53	Gravity anomalies derived from Seasat, Geosat, ERS-1 and TOPEX/POSEIDON altimetry and ship gravity: a case study over the Reykjanes Ridge. Geophysical Journal International, 1995, 122, 551-568.	2.4	77
54	Assessing the ability of Pleiades stereo imagery to determine height changes in earthquakes: A case study for the El Mayorâ€Cucapah epicentral area. Journal of Geophysical Research: Solid Earth, 2015, 120, 8793-8808.	3.4	77

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55	The effect of a shallow low viscosity zone on the apparent compensation of mid-plate swells. Earth and Planetary Science Letters, 1987, 82, 335-348.	4.4	76
56	The crustal structure of the Madagascar Ridge. Geophysical Journal International, 1981, 66, 351-377.	2.4	70
57	The vertical separation of mainshock rupture and microseismicity at Qeshm island in the Zagros fold-and-thrust belt, Iran. Earth and Planetary Science Letters, 2010, 296, 181-194.	4.4	67
58	Constraining crustal velocity fields with InSAR for Eastern Turkey: Limits to the blockâ€like behavior of Eastern Anatolia. Journal of Geophysical Research: Solid Earth, 2014, 119, 5215-5234.	3.4	67
59	From quiescence to unrest: 20â€‰years of satellite geodetic measurements at Santorini volcano, Greece. Journal of Geophysical Research: Solid Earth, 2015, 120, 1309-1328.	3.4	67
60	The relationship between gravity and bathymetry in the Pacific Ocean. Geophysical Journal International, 1985, 83, 263-298.	2.4	66
61	Convective instabilities in a variable viscosity fluid cooled from above. Physics of the Earth and Planetary Interiors, 1985, 39, 14-32.	1.9	66
62	Dynamic topography and gravity anomalies for fluid layers whose viscosity varies exponentially with depth. Geophysical Journal International, 1987, 90, 349-368.	2.4	66
63	Limitations of rupture forecasting exposed by instantaneously triggered earthquake doublet. Nature Geoscience, 2016, 9, 330-336.	12.9	66
64	Global derivation of marine gravity anomalies from Seasat, Geosat, ERS-1 and TOPEX/POSEIDON altimeter data. Geophysical Journal International, 1998, 134, 449-459.	2.4	65
65	The 2005 Qeshm Island earthquake (Iran)-a link between buried reverse faulting and surface folding in the Zagros Simply Folded Belt?. Geophysical Journal International, 2007, 171, 326-338.	2.4	65
66	Observations of convection at rayleigh numbers up to 760,000 in a fluid with large prandtl number. Geophysical and Astrophysical Fluid Dynamics, 1977, 9, 201-217.	1.2	64
67	Aseismic deformation of a fold-and-thrust belt imaged by synthetic aperture radar interferometry near Shahdad, southeast Iran. Geology, 2004, 32, 577.	4.4	64
68	Effect of a shallow lowâ€viscosity zone on the formation of midplate swells. Journal of Geophysical Research, 1988, 93, 3144-3156.	3.3	59
69	Geodetic constraints on glacial isostatic adjustment in Europe. Geophysical Research Letters, 2005, 32, .	4.0	58
70	Depth segmentation of the seismogenic continental crust: The 2008 and 2009 Qaidam earthquakes. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	58
71	A major, intraplate, normalâ€faulting earthquake: The 1739 Yinchuan event in northern China. Journal of Geophysical Research: Solid Earth, 2016, 121, 293-320.	3.4	58
72	Rapid strain accumulation on the Ashkabad fault (Turkmenistan) from atmosphereâ€corrected InSAR. Journal of Geophysical Research: Solid Earth, 2013, 118, 3674-3690.	3.4	57

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73	Interseismic strain accumulation across the North Anatolian Fault from Envisat InSAR measurements. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	52
74	A note on the correction of ocean floor depths for sediment loading. Journal of Geophysical Research, 1982, 87, 4715-4722.	3.3	51
75	Seamount abundances and distributions in the southeast Pacific. Earth and Planetary Science Letters, 1988, 87, 137-151.	4.4	44
76	The postseismic response to the 2002M7.9 Denali Fault earthquake: constraints from InSAR 2003-2005. Geophysical Journal International, 2009, 176, 353-367.	2.4	42
77	An optimal procedure for deriving marine gravity from multi-satellite altimetry. Geophysical Journal International, 1996, 125, 705-718.	2.4	40
78	A method for the joint inversion of geodetic and seismic waveform data using ABIC: application to the 1997 Manyi, Tibet, earthquake. Geophysical Journal International, 2014, 196, 1564-1579.	2.4	40
79	Combining InSAR and seismology to study the 2003 Siberian Altai earthquakes-dextral strike-slip and anticlockwise rotations in the northern India-Eurasia collision zone. Geophysical Journal International, 2007, 169, 216-232.	2.4	38
80	The 2013 Balochistan earthquake: An extraordinary or completely ordinary event?. Geophysical Research Letters, 2015, 42, 6236-6243.	4.0	38
81	Bathymetry of the Reykjanes Ridge. Marine Geophysical Researches, 1997, 19, 55-64.	1.2	36
82	Relation between surface velocity field and shear wave splitting in the South Island of New Zealand. Journal of Geophysical Research, 2002, 107, ETG 5-1-ETG 5-7.	3.3	36
83	The 1998 Aiquile, Bolivia earthquake: A seismically active fault revealed with InSAR. Earth and Planetary Science Letters, 2005, 232, 39-49.	4.4	35
84	Seasatâ€derived gravity over the Musicians Seamounts. Journal of Geophysical Research, 1986, 91, 8325-8340.	3.3	33
85	Surface displacements in the September 2005 Afar rifting event from satellite image matching: Asymmetric uplift and faulting. Geophysical Research Letters, 2009, 36, .	4.0	33
86	Coseismic and postseismic displacements from the 1978 M w 7.3 Tabas-e-Golshan earthquake in eastern Iran. Earth and Planetary Science Letters, 2016, 452, 185-196.	4.4	33
87	Blind Thrusting, Surface Folding, and the Development of Geological Structure in the M_w 6.3 2015 Pishan (China) Earthquake. Journal of Geophysical Research: Solid Earth, 2017, 122, 9359-9382.	3.4	33
88	Placing bounds on lithospheric deformation in the central Pacific Ocean. Earth and Planetary Science Letters, 1992, 111, 123-139.	4.4	32
89	Interpreting gravity, geoid, and topography for convection with temperature dependent viscosity: Application to surface features on Venus. Journal of Geophysical Research, 1995, 100, 21155.	3.3	32
90	Seismotectonics and rupture process of theM_WÂ7.1 2011 Van reverse-faulting earthquake, eastern Turkey, and implications for hazard in regions of distributed shortening. Geophysical Journal International, 2016, 206, 501-524.	2.4	30

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91	Time-dependent postseismic slip following the 1978 M 7.3 Tabas-e-Golshan, Iran earthquake revealed by over 20 years of ESA InSAR observations. Earth and Planetary Science Letters, 2018, 483, 64-75.	4.4	30
92	The 2006 March 25 Fin earthquakes (Iran)-insights into the vertical extents of faulting in the Zagros Simply Folded Belt. Geophysical Journal International, 2010, , .	2.4	29
93	Effect of a shallow lowâ€viscosity zone on smallâ€scale instabilities under the cooling oceanic plates. Journal of Geophysical Research, 1988, 93, 3469-3479.	3.3	28
94	The tectonics of the western Ordos Plateau, Ningxia, China: Slip rates on the Luoshan and East Helanshan Faults. Tectonics, 2016, 35, 2754-2777.	2.8	27
95	Interseismic strain accumulation across the Manyi fault (Tibet) prior to the 1997 M_w7.6 earthquake. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	26
96	Geoid lineations of 1000 km wavelength over the central Pacific. Geophysical Research Letters, 1995, 22, 97-100.	4.0	25
97	Scaling of viscous shear zones with depth-dependent viscosity and power-law stressâ€“strain-rate dependence. Geophysical Journal International, 2015, 202, 242-260.	2.4	25
98	The effect of a shallow low-viscosity zone on the mantle flow, the geoid anomalies and the geoid and depth-age relationships at fracture zones. Geophysical Journal International, 1988, 93, 25-43.	2.4	24
99	Cooling of the oceanic lithosphereâ€”evidence from geoid anomalies across the Udintsev and Eltanin fracture zones. Earth and Planetary Science Letters, 1988, 88, 289-307.	4.4	24
100	Characterizing Complex Surface Ruptures in the 2013 M_w 7.7 Balochistan Earthquake Using Threeâ€Dimensional Displacements. Journal of Geophysical Research: Solid Earth, 2018, 123, 10,191.	3.4	22
101	Radar interferometry time series analysis of Mashhad subsidence. Journal of the Indian Society of Remote Sensing, 2009, 37, 147-156.	2.4	20
102	Largeâ€Scale Interseismic Strain Mapping of the NE Tibetan Plateau From Sentinelâ€1 Interferometry. Journal of Geophysical Research: Solid Earth, 2022, 127, .	3.4	17
103	Mapping 3D fault geometry in earthquakes using highâ€resolution topography: Examples from the 2010 El Mayorâ€Cucapah (Mexico) and 2013 Balochistan (Pakistan) earthquakes. Geophysical Research Letters, 2016, 43, 3134-3142.	4.0	16
104	Geoid anomalies over two South Atlantic fracture zones. Earth and Planetary Science Letters, 1990, 100, 18-41.	4.4	15
105	The Relationship Between Seismic and Aseismic Slip on the Philippine Fault on Leyte Island: Bayesian Modeling of Fault Slip and Geothermal Subsidence. Journal of Geophysical Research: Solid Earth, 2020, 125, e2020JB020052.	3.4	15
106	The inverse problem of constructing a gravimetric geoid. Journal of Geophysical Research, 1982, 87, 1835-1848.	3.3	11
107	Comparison of seismic and geodetic strain rates at the margins of the Ordos Plateau, northern China. Geophysical Journal International, 2018, 212, 988-1009.	2.4	10
108	Co-seismic vertical displacements from a single post-seismic lidar DEM: example from the 2010 El Mayor-Cucapah earthquake. Geophysical Journal International, 2015, 202, 328-346.	2.4	8

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109	Postâ€Earthquake Fold Growth Imaged in the Qaidam Basin, China, With Interferometric Synthetic Aperture Radar. Journal of Geophysical Research: Solid Earth, 2021, 126, e2020JB021241.	3.4	8
110	A comparison of discrete and continuous intrusion models for the thermal structure of the plates. Geophysical Journal of the Royal Astronomical Society, 1982, 70, 741-753.	0.2	7
111	A detailed gravity field over the Reykjanes Ridge from Seasat, Geosat, ERS-1 and TOPEX/POSEIDON altimetry and shipborne gravity. Geophysical Research Letters, 1994, 21, 2841-2844.	4.0	5
112	Reply [to â€œComments on â€˜Comparison of long-wavelength residual elevation and free air gravity anomalies in the North Atlantic and possible implications for the thickness of the lithospheric plateâ€™ by John G. Sclater, Lawrence A. Lawver, and Barry Parsonsâ€¦ Journal of Geophysical Research, 1976, 81, 4960-4964.	3.3	4
113	Gravity fields over mid-ocean ridges from GEOSAT GM data: Variations as a function of spreading rate. Geophysical Research Letters, 1994, 21, 2837-2840.	4.0	4
114	Reply [to â€œComment on â€˜Geodetic investigation of the 13 May Kozani-Grevena (Greece) Earthquakeâ€™ by Clarke et al.â€]. Geophysical Research Letters, 1998, 25, 131-133.	4.0	4