Thomas M Brocher

List of Publications by Year in descending order

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57 papers

4,326 citations

30 h-index 55 g-index

87 all docs 87 docs citations

87 times ranked

3098 citing authors

#	Article	IF	Citations
1	Empirical Relations between Elastic Wavespeeds and Density in the Earth's Crust. Bulletin of the Seismological Society of America, 2005, 95, 2081-2092.	2.3	1,243
2	A multichannel seismic study of lithospheric flexure across the Hawaiian–Emperor seamount chain. Nature, 1985, 315, 105-111.	27.8	232
3	Imaging the transition from Aleutian subduction to Yakutat collision in central Alaska, with local earthquakes and active source data. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	228
4	Seismic evidence for widespread serpentinized forearc upper mantle along the Cascadia margin. Geology, 2003, 31, 267.	4.4	157
5	Subduction-zone magnetic anomalies and implications for hydrated forearc mantle. Geology, 2005, 33, 445.	4.4	154
6	Trans-Alaska Crustal Transect and continental evolution involving subduction underplating and synchronous foreland thrusting. Geology, 2008, 36, 267.	4.4	139
7	Mapping the megathrust beneath the northern Gulf of Alaska using wide-angle seismic data. Journal of Geophysical Research, 1994, 99, 11663-11685.	3.3	128
8	Upper crustal structure in Puget Lowland, Washington: Results from the 1998 Seismic Hazards Investigation in Puget Sound. Journal of Geophysical Research, 2001, 106, 13541-13564.	3.3	103
9	Seismic anisotropy due to preferred mineral orientation observed in shallow crustal rocks in southern Alaska. Geology, 1990, 18, 737.	4.4	89
10	Compressional and Shear-Wave Velocity versus Depth Relations for Common Rock Types in Northern California. Bulletin of the Seismological Society of America, 2008, 98, 950-968.	2.3	89
11	Intraslab Earthquakes: Dehydration of the Cascadia Slab. Science, 2003, 302, 1197-1200.	12.6	87
12	Holocene fault scarps near Tacoma, Washington, USA. Geology, 2004, 32, 9.	4.4	85
13	Ground-Motion Modeling of the 1906 San Francisco Earthquake, Part II: Ground-Motion Estimates for the 1906 Earthquake and Scenario Events. Bulletin of the Seismological Society of America, 2008, 98, 1012-1046.	2.3	77
14	Ground-Motion Modeling of Hayward Fault Scenario Earthquakes, Part II: Simulation of Long-Period and Broadband Ground Motions. Bulletin of the Seismological Society of America, 2010, 100, 2945-2977.	2.3	76
15	A California Statewide Three-Dimensional Seismic Velocity Model from Both Absolute and Differential Times. Bulletin of the Seismological Society of America, 2010, 100, 225-240.	2.3	71
16	The Mw 6.0 24 August 2014 South Napa Earthquake. Seismological Research Letters, 2015, 86, 309-326.	1.9	70
17	Crustal structure of a transform plate boundary: San Francisco Bay and the central California continental margin. Journal of Geophysical Research, 1996, 101, 22311-22334.	3.3	62
18	Geophysical evidence for the evolution of the California Inner Continental Borderland as a metamorphic core complex. Journal of Geophysical Research, 2000, 105, 5835-5857.	3.3	62

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19	Ground-Motion Modeling of the 1906 San Francisco Earthquake, Part I: Validation Using the 1989 Loma Prieta Earthquake. Bulletin of the Seismological Society of America, 2008, 98, 989-1011.	2.3	62
20	Key elements of regional seismic velocity models for long period ground motion simulations. Journal of Seismology, 2008, 12, 217-221.	1.3	61
21	Thrusting of the central California margin over the edge of the Pacific plate during the transform regime. Geology, 1993, 21, 635.	4.4	50
22	Twoâ€dimensional seismic reflection modeling of the inferred fossil oceanic crust/mantle transition in the Bay of Islands Ophiolite. Journal of Geophysical Research, 1986, 91, 12520-12538.	3.3	46
23	Seismic velocity structure at Deep Sea Drilling Project site 504B, Panama Basin: Evidence for thin oceanic crust. Journal of Geophysical Research, 1989, 94, 9283-9302.	3.3	46
24	Regional threeâ€dimensional seismic velocity model of the crust and uppermost mantle of northern California. Journal of Geophysical Research, 2009, 114, .	3.3	45
25	Seismic reflection images of the crust of the northern part of the Chugach Terrane, Alaska: Results of a survey for the Transâ€Alaska Crustal Transect (TACT). Journal of Geophysical Research, 1989, 94, 4424-4440.	3.3	44
26	Interpretation of the Seattle Uplift, Washington, as a Passive-Roof Duplex. Bulletin of the Seismological Society of America, 2004, 94, 1379-1401.	2.3	43
27	Seismic Velocity Structure and Seismotectonics of the Eastern San Francisco Bay Region, California. Bulletin of the Seismological Society of America, 2007, 97, 826-842.	2.3	43
28	Modeling and Validation of a 3D Velocity Structure for the Santa Clara Valley, California, for Seismic-Wave Simulations. Bulletin of the Seismological Society of America, 2006, 96, 1851-1881.	2.3	40
29	Earthquakes generated from bedding plane-parallel reverse faults above an active wedge thrust, Seattle fault zone. Bulletin of the Geological Society of America, 2008, 120, 1581-1597.	3.3	40
30	Threeâ€dimensional <i>P</i> wave velocity model for the San Francisco Bay region, California. Journal of Geophysical Research, 2007, 112, .	3.3	32
31	A Regional View of Urban Sedimentary Basins in Northern California Based on Oil Industry Compressional-Wave Velocity and Density Logs. Bulletin of the Seismological Society of America, 2005, 95, 2093-2114.	2.3	31
32	A highâ€resolution seismic reflection/refraction study of the Chugachâ€Peninsular Terrane Boundary, southern Alaska. Journal of Geophysical Research, 1989, 94, 4441-4455.	3.3	28
33	Images of crust beneath southern California will aid study of earthquakes and their effects. Eos, 1996, 77, 173-176.	0.1	27
34	Synthesis of Crustal Seismic Structure and Implications for the Concept of a Slab Gap beneath Coastal California. International Geology Review, 1999, 41, 263-274.	2.1	27
35	A large mantle water source for the northern San Andreas fault system: a ghost of subduction past. Earth, Planets and Space, 2014, 66, .	2.5	27
36	A Simple Algorithm for Sequentially Incorporating Gravity Observations in Seismic Traveltime Tomography. International Geology Review, 2001, 43, 1073-1086.	2.1	25

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37	Lower crustal deformation beneath the central Transverse Ranges, southern California: Results from the Los Angeles Region Seismic Experiment. Journal of Geophysical Research, 2002, 107, ETG 8-1-ETG 8-19.	3.3	25
38	Evidence for distributed clockwise rotation of the crust in the northwestern United States from fault geometries and focal mechanisms. Tectonics, 2017, 36, 787-818.	2.8	23
39	Implications of seismic reflection and potential field geophysical data on the structural framework of the Yucca Mountain–Crater Flat region, Nevada. Bulletin of the Geological Society of America, 1998, 110, 947-971.	3.3	23
40	Imaging the source region of the 2003 San Simeon earthquake within the weak Franciscan subduction complex, central California. Geophysical Research Letters, 2004, 31, .	4.0	22
41	Seismic stratigraphy of the oceanic Moho based on ophiolite models. Geology, 1985, 13, 62.	4.4	21
42	Site Response and Attenuation in the Puget Lowland, Washington State. Bulletin of the Seismological Society of America, 2006, 96, 536-552.	2.3	18
43	Seismic Amplification within the Seattle Basin, Washington State: Insights from SHIPS Seismic Tomography Experiments. Bulletin of the Seismological Society of America, 2007, 97, 1432-1448.	2.3	17
44	Seismic reflection profiling across Tertiary extensional structures in the eastern Amargosa Desert, southern Nevada, Basin and Range province. Bulletin of the Geological Society of America, 1993, 105, 30-46.	3.3	17
45	Geophysical investigation of the Denali fault and Alaska Range orogen within the aftershock zone of the October–November 2002, M = 7.9 Denali fault earthquake. Geology, 2004, 32, 269.	4.4	15
46	Geometry and subsurface lithology of southern Death Valley basin, California, based on refraction analysis of multichannel seismic data. Geology, 1987, 15, 1159.	4.4	12
47	Seismic reflection/refraction mapping of faulting and regional dips in the Eastern Alaska Range. Journal of Geophysical Research, 1991, 96, 10233-10249.	3.3	12
48	T-phases from an earthquake swarm on the mid-Atlantic ridge at 31.6% N. Marine Geophysical Researches, 1983, 6, 39-49.	1.2	11
49	A comparison of highâ€resolution seismic methods for determining seabed velocities in shallow water. Journal of the Acoustical Society of America, 1986, 79, 286-298.	1.1	10
50	Evaluating Spatial and Temporal Relations between an Earthquake Cluster near Entiat, Central Washington, and the Large December 1872 Entiat Earthquake. Bulletin of the Seismological Society of America, 2017, 107, 2380-2393.	2.3	9
51	Urban seismic experiments investigate Seattle Fault and Basin. Eos, 2000, 81, 545-552.	0.1	8
52	Experimental studies of lowâ€frequency waterborne and sedimentâ€borne acoustic wave propagation on a continental shelf. Journal of the Acoustical Society of America, 1983, 74, 960-972.	1.1	5
53	Comment and Reply on "Seismic anisotropy due to preferred mineral orientation observed in shallow crustal rocks in southern Alaska". Geology, 1991, 19, 859.	4.4	5
54	Constraints on the age of formation of seismically reflective middle and lower crust beneath the Bering Shelf: SHRIMP zircon dating of xenoliths from Saint Lawrence Island., 2002,,.		4

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55	Upper-crustal structure beneath the Strait of Georgia, Southwest British Columbia. Geophysical Journal International, 2007, 170, 800-812.	2.4	4
56	Crustal structure across the Bering Strait, Alaska: Onshore recordings of a marine seismic survey. , 2002, , .		3
57	Deep-crustal seismology of continental margins. Reviews of Geophysics, 1995, 33, 309.	23.0	2