Norman H Sleep

List of Publications by Year in Descending Order

99 papers	6,217 citations	38 h-index	78 g-index
106 ext. papers	6,704 ext. citations	10.2 avg, IF	6.27 L-index

#	Paper	IF	Citations
99	Evaluation of Seismic Hazard Models with Fragile Geologic Features. *Seismological Research Letters*, **2021**, 92, 314-324	3	4
98	Mild Displacements of Boulders during the 2019 Ridgecrest Earthquakes. *Bulletin of the Seismological Society of America*, **2020**, 110, 1579-1588	2.3	1
97	Are We Alone? An Interview with Dr. Norman Sleep. *Astrobiology*, **2020**, 20, 563-571	3.7	
96	Nonlinear Suppression of High-Frequency S Waves by the Near-Field Velocity Pulse With Reference to the 2002 Denali Earthquake. *Journal of Geophysical Research: Solid Earth*, **2020**, 125, e2019JB018386	3.6	
95	Friction in Cold Ice Within Outer Solar System Satellites With Reference to Thermal Weakening at High Sliding Velocities. *Journal of Geophysical Research E: Planets*, **2019**, 124, 2397-2413	4.1	0
94	Nonlinear Interaction of High-Frequency Seismic Waves With Sliding Fault Planes. *Journal of Geophysical Research: Solid Earth*, **2019**, 124, 11748-11770	3.6	
93	Thermal Weakening of Asperity Tips on Fault Planes at High Sliding Velocities. *Geochemistry, Geophysics, Geosystems*, **2019**, 20, 1164-1188	3.6	8
92	Cratonic basins with reference to the Michigan basin. *Geological Society Special Publication*, **2018**, 472, 17-35	1.7	4
91	Planetary Interior-Atmosphere Interaction and Habitability **2018**, 1-22		1
90	Geological and Geochemical Constraints on the Origin and Evolution of Life. *Astrobiology*, **2018**, 18, 1199-1219	3.7	48
89	Remote Faulting Triggered by Strong Seismic Waves from the Cretaceous–Paleogene Asteroid Impact. *Seismological Research Letters*, **2018**, 89, 570-576	3	4
88	Planetary Interior-Atmosphere Interaction and Habitability **2018**, 2937-2958		1
87	Heat flow, strong near-fault seismic waves, and near-fault tectonics on the central San Andreas Fault. *Geochemistry, Geophysics, Geosystems*, **2016**, 17, 1778-1798	3.6	2
86	Plate-tectonic evolution of the Earth: bottom-up and top-down mantle circulation. *Canadian Journal of Earth Sciences*, **2016**, 53, 1103-1120	1.5	27
85	Asteroid bombardment and the core of Theia as possible sources for the Earth's late veneer component.. *Geochemistry, Geophysics, Geosystems*, **2016**, 17, 2623-2642	3.6	15
84	Shallow Sedimentary Rock as a Fragile Geological Feature: Effects of Clay Content and Hydrology on Frictional Strength. *Bulletin of the Seismological Society of America*, **2016**, 106, 2777-2783	2.3	2
83	The tethered Moon. *Earth and Planetary Science Letters*, **2015**, 427, 74-82	5.3	40

82	Nonlinear attenuation from the interaction between different types of seismic waves and interaction of seismic waves with shallow ambient tectonic stress. *Geochemistry, Geophysics, Geosystems*, **2015**, 16, 2336-2363	3.6	4
81	Long-term deformation driven by small ambient tectonic stresses and strong oscillating tidal within Enceladus with analogy to rock behavior near the San Andreas Fault. *Geochemistry, Geophysics, Geosystems*, **2015**, 16, 1670-1686	3.6	4
80	Physics of crustal fracturing and chert dike formation triggered by asteroid impact, ~3.26 Ga, Barberton greenstone belt, South Africa. *Geochemistry, Geophysics, Geosystems*, **2014**, 15, 1054-1070	3.6	19
79	Ambient tectonic stress as fragile geological feature. *Geochemistry, Geophysics, Geosystems*, **2014**, 15, 3628-3644	3.6	6
78	Nonlinear attenuation of S-waves and Love waves within ambient rock. *Geochemistry, Geophysics, Geosystems*, **2014**, 15, 1419-1440	3.6	11
77	Effect of latent heat of freezing on crustal generation at low spreading rates. *Geochemistry, Geophysics, Geosystems*, **2014**, 15, 3161-3174	3.6	17
76	Terrestrial aftermath of the Moon-forming impact. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2014**, 372, 20130172	3	32
75	Self-organization of elastic moduli in the rock above blind faults. *Geochemistry, Geophysics, Geosystems*, **2013**, 14, 733-750	3.6	1
74	BIOLOGICAL EFFECTS ON THE SOURCE OF GEONEUTRINOS. *International Journal of Modern Physics A*, **2013**, 28, 1330047	1.2	9
73	The Michigan Basin. *Geodynamic Series*, **2013**, 93-98		11
72	Paleontology of Earth's Mantle. *Annual Review of Earth and Planetary Sciences*, **2012**, 40, 277-300	15.3	38
71	Microscopic elasticity and rate and state friction evolution laws. *Geochemistry, Geophysics, Geosystems*, **2012**, 13,	3.6	10
70	Maintenance of permeable habitable subsurface environments by earthquakes and tidal stresses. *International Journal of Astrobiology*, **2012**, 11, 257-268	1.4	13
69	Life: asteroid target, witness from the early Earth, and ubiquitous effect on global geology. *Astrobiology*, **2012**, 12, 1163-4	3.7	
68	Seismically observable features of mature stagnant-lid convection at the base of the lithosphere: Some scaling relationships. *Geochemistry, Geophysics, Geosystems*, **2011**, 12, n/a-n/a	3.6	6
67	Seismically damaged regolith as self-organized fragile geological feature. *Geochemistry, Geophysics, Geosystems*, **2011**, 12, n/a-n/a	3.6	12
66	Deep-seated downslope slip during strong seismic shaking. *Geochemistry, Geophysics, Geosystems*, **2011**, 12, n/a-n/a	3.6	11
65	Habitable zone limits for dry planets. *Astrobiology*, **2011**, 11, 443-60	3.7	196

64	Rosing, Bird, Sleep & Bjerrum reply. *Nature*, **2011**, 474, E1-E1	50.4	19
63	Serpentinite and the dawn of life. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2011**, 366, 2857-69	5.8	121
62	Small-scale convection beneath oceans and continents. *Science Bulletin*, **2011**, 56, 1292-1317		14
61	No climate paradox under the faint early Sun. *Nature*, **2010**, 464, 744-7	50.4	190
60	Application of rate and state friction formalism and flash melting to thin permanent slip zones of major faults. *Geochemistry, Geophysics, Geosystems*, **2010**, 11, n/a-n/a	3.6	6
59	Sudden and gradual compaction of shallow brittle porous rocks. *Journal of Geophysical Research*, **2010**, 115,		5
58	Strong seismic shaking of randomly prestressed brittle rocks, rock damage, and nonlinear attenuation. *Geochemistry, Geophysics, Geosystems*, **2010**, 11, n/a-n/a	3.6	9
57	The Hadean-Archaean environment. *Cold Spring Harbor Perspectives in Biology*, **2010**, 2, a002527	10.2	137
56	Stagnant lid convection and carbonate metasomatism of the deep continental lithosphere. *Geochemistry, Geophysics, Geosystems*, **2009**, 10, n/a-n/a	3.6	42
55	Stagnant lid convection and the thermal subsidence of sedimentary basins with reference to Michigan. *Geochemistry, Geophysics, Geosystems*, **2009**, 10, n/a-n/a	3.6	14
54	Production of brief extreme ground acceleration pulses by nonlinear mechanisms in the shallow subsurface. *Geochemistry, Geophysics, Geosystems*, **2008**, 9, n/a-n/a	3.6	16
53	Scaling relationships for chemical lid convection with applications to cratonal lithosphere. *Geochemistry, Geophysics, Geosystems*, **2008**, 9, n/a-n/a	3.6	11
52	Nonlinear attenuation and rock damage during strong seismic ground motions. *Geochemistry, Geophysics, Geosystems*, **2008**, 9, n/a-n/a	3.6	12
51	Channeling at the base of the lithosphere during the lateral flow of plume material beneath flow line hot spots. *Geochemistry, Geophysics, Geosystems*, **2008**, 9, n/a-n/a	3.6	28
50	Evolutionary ecology during the rise of dioxygen in the Earth's atmosphere. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2008**, 363, 2651-64	5.8	54
49	Application of rate-and-state friction laws to creep compaction of unconsolidated sand under hydrostatic loading conditions. *Journal of Geophysical Research*, **2007**, 112,		3
48	Edge-modulated stagnant-lid convection and volcanic passive margins. *Geochemistry, Geophysics, Geosystems*, **2007**, 8, n/a-n/a	3.6	25
47	Weak thermal convection within tilted plume conduits. *Geochemistry, Geophysics, Geosystems*, **2007**, 8, n/a-n/a	3.6	3

46	Stress and Flow beneath Island Arcs. *Geophysical Journal of the Royal Astronomical Society*, **2007**, 42, 827-857		65
45	Niches of the pre-photosynthetic biosphere and geologic preservation of Earth's earliest ecology. *Geobiology*, **2007**, 5, 101-117	4.3	86
44	Strategy for Applying Neutrino Geophysics to the Earth Sciences Including Planetary Habitability. *Earth, Moon and Planets*, **2007**, 99, 343-358	0.6	2
43	Emergence of a Habitable Planet. *Space Science Reviews*, **2007**, 129, 35-78	7.5	269
42	Did earthquakes keep the early crust habitable?. *Astrobiology*, **2007**, 7, 1023-32	3.7	30
41	Mantle plumes from top to bottom. *Earth-Science Reviews*, **2006**, 77, 231-271	10.2	106
40	Impacts and the Early Evolution of Life **2006**, 207-251		16
39	Real contacts and evolution laws for rate and state friction. *Geochemistry, Geophysics, Geosystems*, **2006**, 7, n/a-n/a	3.6	29
38	Frictional dilatancy. *Geochemistry, Geophysics, Geosystems*, **2006**, 7, n/a-n/a	3.6	10
37	Weathering of quartz as an Archean climatic indicator. *Earth and Planetary Science Letters*, **2006**, 241, 594-602	5.3	45
36	The rise of continents—An essay on the geologic consequences of photosynthesis. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **2006**, 232, 99-113	2.9	77
35	Physical basis of evolution laws for rate and state friction. *Geochemistry, Geophysics, Geosystems*, **2005**, 6, n/a-n/a	3.6	21
34	EVOLUTION OF THE CONTINENTAL LITHOSPHERE. *Annual Review of Earth and Planetary Sciences*, **2005**, 33, 369-393	15.3	130
33	Palaeoclimatology: Archaean palaeosols and Archaean air. *Nature*, **2004**, 432, 2 p following 460; discussion following 460	50.4	7
32	Osmium isotopic compositions of Os-rich platinum group element alloys from the Klamath and Siskiyou Mountains. *Journal of Geophysical Research*, **2004**, 109,		32
31	Survival of Archean cratonal lithosphere. *Journal of Geophysical Research*, **2003**, 108,		92
30	Fate of mantle plume material trapped within a lithospheric catchment with reference to Brazil. *Geochemistry, Geophysics, Geosystems*, **2003**, 4,	3.6	17
29	Geodynamic implications of xenolith geotherms. *Geochemistry, Geophysics, Geosystems*, **2003**, 4, n/a-n/a	3.6	39

28	Long lasting epeirogenic uplift from mantle plumes and the origin of the Southern African Plateau. *Geochemistry, Geophysics, Geosystems*, **2003**, 4,	3.6	58
27	Local lithospheric relief associated with fracture zones and ponded plume material. *Geochemistry, Geophysics, Geosystems*, **2002**, 3, 1-17	3.6	34
26	Carbon dioxide cycling through the mantle and implications for the climate of ancient Earth. *Geological Society Special Publication*, **2002**, 199, 231-257	1.7	14
25	Ridge-crossing mantle plumes and gaps in tracks. *Geochemistry, Geophysics, Geosystems*, **2002**, 3, 1-33	3.6	35
24	Carbon dioxide cycling and implications for climate on ancient Earth. *Journal of Geophysical Research*, **2001**, 106, 1373-1399		390
23	Physics of friction and strain rate localization in synthetic fault gouge. *Journal of Geophysical Research*, **2000**, 105, 25875-25890		55
22	Rate- and state-dependent friction of intact rock and gouge. *Journal of Geophysical Research*, **1999**, 104, 17847-17855		17
21	Refugia from asteroid impacts on early Mars and the early Earth. *Journal of Geophysical Research*, **1998**, 103, 28529-28544		104
20	Lateral flow and ponding of starting plume material. *Journal of Geophysical Research*, **1997**, 102, 10001-10012		144
19	Application of a unified rate and state friction theory to the mechanics of fault zones with strain localization. *Journal of Geophysical Research*, **1997**, 102, 2875-2895		117
18	Frictional heating and the stability of rate and state dependent frictional sliding. *Geophysical Research Letters*, **1995**, 22, 2785-2788	4.9	24
17	Martian plate tectonics. *Journal of Geophysical Research*, **1994**, 99, 5639		276
16	Creep, compaction and the weak rheology of major faults. *Nature*, **1992**, 359, 687-692	50.4	348
15	Hotspot Volcanism and Mantle Plumes. *Annual Review of Earth and Planetary Sciences*, **1992**, 20, 19-43	15.3	101
14	Processes within the Mantle: Seismic Tomography and Mantie Circulation . R. K. ORNions and B. Parsons, Eds. Royal Society, London, 1989. viii, 152 pp., illus. £37.50. Reprinted from Philosophical Transactions of the Royal Society A, vol. 328 (1989). From a meeting, London, U.K., April 1988.. *Science*, **1990**, 248, 1141-1141	33.3	
13	Annihilation of ecosystems by large asteroid impacts on the early Earth. *Nature*, **1989**, 342, 139-42	50.4	413
12	More about the moment of inertia of Mars. *Geophysical Research Letters*, **1989**, 16, 1333-1336	4.9	31
11	Gradual entrainment of a chemical layer at the base of the mantle by overlying convection. *Geophysical Journal International*, **1988**, 95, 437-447	2.6	108

10	Dynamically supported geoid highs over hotspots: Observation and theory. *Journal of Geophysical Research*, **1988**, 93, 7690		193
9	Gravity and lithospheric stress on the terrestrial planets with reference to the Tharsis Region of Mars. *Journal of Geophysical Research*, **1985**, 90, 4469-4489		77
8	A Mid-Ocean Ridge Thermal Model: Constraints on the volume of axial hydrothermal heat flux. *Journal of Geophysical Research*, **1985**, 90, 11345		187
7	Thermal contraction and flexure of intracratonal basins: a three-dimensional study of the Michigan basin. *Geophysical Journal International*, **1984**, 76, 587-635	2.6	52
6	Archean Plate Tectonics: Constraints and Inferences. *Journal of Geology*, **1982**, 90, 363-379	2	301
5	A deep borehole in the Michigan Basin. *Journal of Geophysical Research*, **1978**, 83, 5815-5819		42
4	Formation of oceanic crust: Some thermal constraints. *Journal of Geophysical Research*, **1975**, 80, 4037-4042		353
3	Segregation of Magma from a Mostly Crystalline Mush. *Bulletin of the Geological Society of America*, **1974**, 85, 1225	3.9	169
2	Sensitivity of heat flow and gravity to the mechanism of sea-floor spreading. *Journal of Geophysical Research*, **1969**, 74, 542-549		213
1	Mars as a time machine to Precambrian Earth. *Journal of the Geological Society*,jgs2022-047	2.7	