Timothy K Lowenstein

List of Publications by Year
in descending order

79 papers	5,255 citations	117625 34 h-index	88630 70 g-index
80 all docs	80 docs citations	80 times ranked	4124 citing authors

#	Article	IF	Citations
1	Reconstructing the Environmental Context of Human Origins in Eastern Africa Through Scientific Drilling. Annual Review of Earth and Planetary Sciences, 2022, 50, 451-476.	11.0	13
2	Redox conditions in Late Permian seawater based on trace metal ratios in fluid inclusions in halite from the Polish Zechstein Basin. Chemical Geology, 2022, 596, 120794.	3.3	0
3	A computer vision algorithm for interpreting lacustrine carbonate textures at Searles Valley, USA. Computers and Geosciences, 2022, 166, 105142.	4.2	1
4	The role of hydrothermal fluids in sedimentation in saline alkaline lakes: Evidence from Nasikie Engida, Kenya Rift Valley. Sedimentology, 2021, 68, 108-134.	3.1	25
5	Sedimentology and stratigraphy of a modern halite sequence formed under Dead Sea level fall. Sedimentology, 2021, 68, 1069-1090.	3.1	15
6	Groundwater mixing in an alkaline paleolake: Eocene Green River Formation, Wyoming. Palaeogeography, Palaeoclimatology, Palaeoecology, 2021, 561, 110038.	2.3	1
7	Middle Pleistocene to recent diatoms and stratigraphy of the Magadi Basin, south Kenya Rift. Journal of Paleolimnology, 2021, 65, 315-333.	1.6	9
8	Searles Lake evaporite sequences: Indicators of late Pleistocene/Holocene lake temperatures, brine evolution, and <i>p</i>CO2. Bulletin of the Geological Society of America, 2021, 133, 2319-2334.	3.3	13
9	A million year vegetation history and palaeoenvironmental record from the Lake Magadi Basin, Kenya Rift Valley. Palaeogeography, Palaeoclimatology, Palaeoecology, 2021, 567, 110247.	2.3	13
10	Spring origin of Eocene carbonate mounds in the Green River Formation, Northern Bridger Basin, Wyoming, USA. Sedimentology, 2021, 68, 2334-2364.	3.1	3
11	Labyrinth patterns in Magadi (Kenya) cherts: Evidence for early formation from siliceous gels. Geology, 2021, 49, 1137-1142.	4.4	7
12	Criteria for the recognition of clastic halite: The modern Dead Sea shoreline. Sedimentology, 2021, 68, 2253-2269.	3.1	2
13	Modern and Ancient Animal Traces in the Extreme Environments of Lake Magadi and Nasikie Engida, Kenya Rift Valley. Syntheses in Limnogeology, 2021, , 19-66.	0.4	5
14	Late Miocene evaporite geochemistry of Lorca and Fortuna basins (Eastern Betics, SE Spain): Evidence of restriction and continentalization. Basin Research, 2020, 32, 916-948.	2.7	10
15	When â€œevaporitesâ€•are not formed by evaporation: The role of temperature and pCO2 on saline deposits of the Eocene Green River Formation, Colorado, USA. Bulletin of the Geological Society of America, 2020, 132, 1365-1380.	3.3	11
16	Combined LA-ICP-MS and cryo-SEM-EDS: An improved technique for quantitative analysis of major, minor, and trace elements in fluid inclusions in halite. Chemical Geology, 2020, 551, 119762.	3.3	10
17	The Aspen paleoriver: Linking Eocene magmatism to the worldâ€™s largest Na-carbonate evaporite (Wyoming, USA). Geology, 2019, 47, 1020-1024.	4.4	11
18	Quaternary history of the Lake Magadi Basin, southern Kenya Rift: Tectonic and climatic controls. Palaeogeography, Palaeoclimatology, Palaeoecology, 2019, 518, 97-118.	2.3	42

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19	Spatial and temporal geochemical variability in lacustrine sedimentation in the East African Rift System: Evidence from the Kenya Rift and regional analyses. Sedimentology, 2018, 65, 1697-1730.	3.1	29
20	Progressive aridification in East Africa over the last half million years and implications for human evolution. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 11174-11179.	7.1	77
21	Sr isotope and major ion compositional evidence for formation of Qarhan Salt Lake, western China. Chemical Geology, 2018, 497, 128-145.	3.3	29
22	Geochemical indicators in Western Mediterranean Messinian evaporites: Implications for the salinity crisis. Marine Geology, 2018, 403, 197-214.	2.1	36
23	The Green River salt mystery: What was the source of the hyperalkaline lake waters?. Earth-Science Reviews, 2017, 173, 295-306.	9.1	45
24	Anomalously High Cretaceous Paleobrine Temperatures: Hothouse, Hydrothermal or Solar Heating?. Minerals (Basel, Switzerland), 2017, 7, 245.	2.0	10
25	Influence of magmatic-hydrothermal activity on brine evolution in closed basins: Searles Lake, California. Bulletin of the Geological Society of America, 2016, 128, 1555-1568.	3.3	27
26	Microbial Habitability and Pleistocene Aridification of the Asian Interior. Astrobiology, 2016, 16, 379-388.	3.0	4
27	THE SEDIMENTARY RECORD OF THE LAKE MAGADI BASIN: CORE ANALYSIS FROM HSPDP-MAG14 CORES 1A, 1C, AND 2A. , 2016, , .		2
28	ORIGINS OF MAGADI-TYPE CHERT: NEW CLUES FROM THE HSPDP LAKE MAGADI DRILL CORES. , 2016, , .		4
29	WAS COLORADO MINERAL BELT VOLCANISM RESPONSIBLE FOR SODIUM-CARBONATE EVAPORITE DEPOSITS IN THE EOCENE GREEN RIVER FORMATION?. , 2016, , .		1
30	LAKE MAGADI, KENYA: MODERN-PLEISTOCENE ANALOG FOR ALKALINE SALINE LAKE DEPOSITS. , 2016, , .		2
31	PALEOHYDROLOGY OF SPRING DEPOSITS IN THE WILKINS PEAK MEMBER OF THE EOCENE GREEN RIVER FORMATION, BRIDGER BASIN, WY. , 2016, , .		2
32	QUATERNARY ENVIRONMENTS OF THE MAGADI BASIN: GEOCHEMICAL AND MICROFOSSIL STRATIGRAPHIC VARIABILITY. , 2016, , .		1
33	Starvation-Survival in Haloarchaea. Life, 2015, 5, 1587-1609.	2.4	14
34	Evaporites of the Green River Formation, Bridger and Piceance Creek Basins: Deposition, Diagenesis, Paleobrine Chemistry, and Eocene Atmospheric CO2. Syntheses in Limnogeology, 2015, , 277-312.	0.4	13
35	Preservation of primary lake signatures in alkaline earth carbonates of the Eocene Green River Wilkins Peak-Laney Member transition zone. Sedimentary Geology, 2014, 314, 75-91.	2.1	29
36	The major-ion composition of Carboniferous seawater. Geochimica Et Cosmochimica Acta, 2014, 134, 317-334.	3.9	24

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37	Characterization of Ancient DNA Supports Long-Term Survival of Haloarchaea. Astrobiology, 2014, 14, 553-560.	3.0	22
38	Experimental study of shortite (Na2Ca2(CO3)3) formation and application to the burial history of the Wilkins Peak Member, Green River Basin, Wyoming, USA. Geochimica Et Cosmochimica Acta, 2013, 115, 31-45.	3.9	27
39	Microorganisms in Evaporites: Review of Modern Geomicrobiology. , 2012, , 117-139.		4
40	The Use of Mg/Ca as a Seawater Temperature Proxy. The Paleontological Society Papers, 2012, 18, 85-100.	0.6	6
41	Archaeal diversity along a subterranean salt core from the Salar Grande (Chile). Environmental Microbiology, 2011, 13, 2105-2121.	3.8	83
42	A Brine Evolution Model and Mineralogy of Chemical Sediments in a Volcanic Crater, Lake Kitagata, Uganda. Aquatic Geochemistry, 2011, 17, 129-140.	1.3	14
43	Microbial communities in fluid inclusions and long-term survival in halite. GSA Today, 2011, 21, 4-9.	2.0	94
44	Ancient Microbes from Halite Fluid Inclusions: Optimized Surface Sterilization and DNA Extraction. PLoS ONE, 2011, 6, e20683.	2.5	30
45	Halophilic <i>Archaea</i> cultured from ancient halite, Death Valley, California. Environmental Microbiology, 2010, 12, 440-454.	3.8	78
46	Hydrochemical characteristics and brine evolution paths of Lop Nor Basin, Xinjiang Province, Western China. Applied Geochemistry, 2010, 25, 1770-1782.	3.0	31
47	<i>Dunaliella</i>Cells in Fluid Inclusions in Halite: Significance for Long-term Survival of Prokaryotes. Geomicrobiology Journal, 2010, 27, 61-75.	2.0	39
48	Microscopic Identification of Prokaryotes in Modern and Ancient Halite, Saline Valley and Death Valley, California. Astrobiology, 2009, 9, 467-482.	3.0	65
49	Closed Basin Brine Evolution and the Influence of Caâ€“Cl Inflow Waters: Death Valley and Bristol Dry Lake California, Qaidam Basin, China, and Salar de Atacama, Chile. Aquatic Geochemistry, 2009, 15, 71-94.	1.3	116
50	Capillary Electrophoresis Analysis of Organic Amines and Amino Acids in Saline and Acidic Samples Using the Mars Organic Analyzer. Astrobiology, 2009, 9, 823-831.	3.0	33
51	Secular variation in the major-ion chemistry of seawater: Evidence from fluid inclusions in Cretaceous halites. Geochimica Et Cosmochimica Acta, 2006, 70, 1977-1994.	3.9	127
52	Elevated Eocene Atmospheric CO2 and Its Subsequent Decline. Science, 2006, 313, 1928-1928.	12.6	163
53	New evidence for 250 Ma age of halotolerant bacterium from a Permian salt crystal. Geology, 2005, 33, 265.	4.4	64
54	Model of seawater composition for the Phanerozoic. Geology, 2005, 33, 877.	4.4	121

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55	An ostracode based paleolimnologic and paleohydrologic history of Death Valley: 200 to 0 ka. Bulletin of the Geological Society of America, 2005, 117, 1379.	3.3	53
56	The major-ion composition of Permian seawater. Geochimica Et Cosmochimica Acta, 2005, 69, 1701-1719.	3.9	102
57	A 200,000-year Î´18O record of closed-basin lacustrine calcite, Death Valley, California. Chemical Geology, 2005, 216, 99-111.	3.3	9
58	Seawater chemistry and the advent of biocalcification. Geology, 2004, 32, 473.	4.4	214
59	Hydrologic variation during the last 170,000 years in the southern hemisphere tropics of South America. Quaternary Research, 2004, 61, 95-104.	1.7	194
60	Secular variation in seawater chemistry and the origin of calcium chloride basinal brines. Geology, 2003, 31, 857.	4.4	303
61	Atmospheric pCO2 since 60 Ma from records of seawater pH, calcium, and primary carbonate mineralogy. Geology, 2003, 31, 793.	4.4	106
62	The major-ion composition of silurian seawater. Geochimica Et Cosmochimica Acta, 2002, 66, 2683-2700.	3.9	89
63	A 106ka paleoclimate record from drill core of the Salar de Atacama, northern Chile. Palaeogeography, Palaeoclimatology, Palaeoecology, 2001, 173, 21-42.	2.3	174
64	Oscillations in Phanerozoic Seawater Chemistry: Evidence from Fluid Inclusions. Science, 2001, 294, 1086-1088.	12.6	462
65	Tropical climate changes at millennial and orbital timescales on the Bolivian Altiplano. Nature, 2001, 409, 698-701.	27.8	418
66	ESEM-EDS: an improved technique for major element chemical analysis of fluid inclusions. Chemical Geology, 2000, 164, 171-181.	3.3	67
67	200 k.y. paleoclimate record from Death Valley salt core. Geology, 1999, 27, 3.	4.4	144
68	A 200,000-Year Record of Change in Oxygen Isotope Composition of Sulfate in a Saline Sediment Core, Death Valley, California. Quaternary Research, 1999, 51, 148-157.	1.7	8
69	U-Series Chronology of Lacustrine Deposits in Death Valley, California. Quaternary Research, 1998, 50, 261-275.	1.7	94
70	Paleotemperatures from fluid inclusions in halite: method verification and a 100,000 year paleotemperature record, Death Valley, CA. Chemical Geology, 1998, 150, 223-245.	3.3	79
71	Responses of evaporite mineralogy to inflow water sources and climate during the past 100 k.y. in Death Valley, California. Bulletin of the Geological Society of America, 1997, 109, 1361-1371.	3.3	45
72	A 100 ka record of water tables and paleoclimates from salt cores, Death Valley, California. Palaeogeography, Palaeoclimatology, Palaeoecology, 1996, 123, 179-203.	2.3	90

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73	Stable isotopes of lake and fluid inclusion brines, Dabusun Lake, Qaidam Basin, western China: Hydrology and paleoclimatology in arid environments. Palaeogeography, Palaeoclimatology, Palaeoecology, 1995, 117, 279-290.	2.3	61
74	Major-element and stable-isotope geochemistry of fluid inclusions in halite, Qaidam Basin, western China: Implications for late Pleistocene/Holocene brine evolution and paleoclimates. Special Paper of the Geological Society of America, 1994, , 19-32.	0.5	14
75	LATE PLEISTOCENE SALINE LACUSTRINE SEDIMENTS, BADWATER BASIN, DEATH VALLEY, CALIFORNIA. , 1994, , 61-103.		11
76	Chapter 3 Depositional Environments of Non-Marine Evaporites. Developments in Sedimentology, 1991, 50, 189-347.	0.5	144
77	Melting behavior of fluid inclusions in laboratory-grown halite crystals in the systems NaClî—¸H2O, NaClî—¸KClî—¸H2O, NaClî—¸MgCl2î—¸H2O, and NaClî—¸CaCl2î—¸H2O. Geochimica Et Cosmochimica Acta, 1990, 54, 591-601.	3.9	302
78	Origin of depositional cycles in a Permian "saline giant": The Salado (McNutt zone) evaporites of New Mexico and Texas. Bulletin of the Geological Society of America, 1988, 100, 592-608.	3.3	75
79	Criteria for the recognition of salt-pan evaporites. Sedimentology, 1985, 32, 627-644.	3.1	340