

# Victor J Polyak

## List of Publications by Year in descending order

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Version: 2024-02-01

107  
papers

5,808  
citations

94433

37  
h-index

76900

74  
g-index

111  
all docs

111  
docs citations

111  
times ranked

6567  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Improvements in $^{230}\text{Th}$ dating, $^{230}\text{Th}$ and $^{234}\text{U}$ half-life values, and $^{230}\text{Th}$ isotopic measurements by multi-collector inductively coupled plasma mass spectrometry. <i>Earth and Planetary Science Letters</i> , 2013, 371-372, 82-91. | 4.4  | 1,007     |
| 2  | Development and Disintegration of Maya Political Systems in Response to Climate Change. <i>Science</i> , 2012, 338, 788-791.   | 12.6 | 421       |
| 3  | Unique Meteorite from Early Amazonian Mars: Water-Rich Basaltic Breccia Northwest Africa 7034. <i>Science</i> , 2013, 339, 780-785.  | 12.6 | 340       |
| 4  | Variable winter moisture in the southwestern United States linked to rapid glacial climate shifts. <i>Nature Geoscience</i> , 2010, 3, 114-117.  | 12.9 | 273       |
| 5  | High resolution stalagmite climate record from the Yucatán Peninsula spanning the Maya terminal classic period. <i>Earth and Planetary Science Letters</i> , 2010, 298, 255-262.   | 4.4  | 202       |
| 6  | Solar forcing of Holocene climate: New insights from a speleothem record, southwestern United States. <i>Geology</i> , 2007, 35, 1.  | 4.4  | 156       |
| 7  | Late Pleistocene Human Skeleton and mtDNA Link Paleoamericans and Modern Native Americans. <i>Science</i> , 2014, 344, 750-754.  | 12.6 | 147       |
| 8  | A Stalagmite record of Holocene Indonesian–Australian summer monsoon variability from the Australian tropics. <i>Quaternary Science Reviews</i> , 2013, 78, 155-168.   | 3.0  | 120       |
| 9  | Abrupt global-ocean anoxia during the Late Ordovician–early Silurian detected using uranium isotopes of marine carbonates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 5896-5901.  | 7.1  | 118       |
| 10 | Aerosol forcing of the position of the intertropical convergence zone since ad 1550. <i>Nature Geoscience</i> , 2015, 8, 195-200.  | 12.9 | 112       |
| 11 | North Atlantic forcing of millennial-scale Indo-Australian monsoon dynamics during the Last Glacial period. <i>Quaternary Science Reviews</i> , 2013, 72, 159-168.   | 3.0  | 111       |
| 12 | Global-ocean redox variation during the middle-late Permian through Early Triassic based on uranium isotope and Th/U trends of marine carbonates. <i>Geology</i> , 2017, 45, 163-166.  | 4.4  | 110       |
| 13 | Age and Evolution of the Grand Canyon Revealed by U-Pb Dating of Water Table-Type Speleothems. <i>Science</i> , 2008, 319, 1377-1380.  | 12.6 | 107       |
| 14 | Prolonged wet period in the southwestern United States through the Younger Dryas. <i>Geology</i> , 2004, 32, 5.  | 4.4  | 105       |
| 15 | A 2400 yr Mesoamerican rainfall reconstruction links climate and cultural change. <i>Geology</i> , 2012, 40, 259-262.  | 4.4  | 103       |
| 16 | A 1500-year El Niño/Southern Oscillation and rainfall history for the Isthmus of Panama from speleothem calcite. <i>Journal of Geophysical Research</i> , 2004, 109, .   | 3.3  | 101       |
| 17 | New age constraints on the Middle Stone Age occupations of Kharga Oasis, Western Desert, Egypt. <i>Journal of Human Evolution</i> , 2007, 52, 690-701.   | 2.6  | 90        |
| 18 | Holocene warming in western continental Eurasia driven by glacial retreat and greenhouse forcing. <i>Nature Geoscience</i> , 2017, 10, 430-435.  | 12.9 | 90        |

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|----|--|------|-----------|
| 19 | Tropical response to the 8200 yr B.P. cold event? Speleothem isotopes indicate a weakened early Holocene monsoon in Costa Rica. <i>Geology</i> , 2004, 32, 957.  | 4.4  | 87        |
| 20 | Orbital control of western North America atmospheric circulation and climate over two glacial cycles. <i>Nature Communications</i> , 2014, 5, 3805.  | 12.8 | 86        |
| 21 | Constraints on global mean sea level during Pliocene warmth. <i>Nature</i> , 2019, 574, 233-236.   | 27.8 | 78        |
| 22 | Constraints on a Late Cretaceous uplift, denudation, and incision of the Grand Canyon region, southwestern Colorado Plateau, USA, from U-Pb dating of lacustrine limestone. <i>Tectonics</i> , 2016, 35, 896-906.                                    | 2.8  | 73        |
| 23 | Shrinking of the Colorado Plateau via lithospheric mantle erosion: Evidence from Nd and Sr isotopes and geochronology of Neogene basalts. <i>Geology</i> , 2011, 39, 27-30.  | 4.4  | 71        |
| 24 | Identification of parasitic losses in Yb:YLF and prospects for optical refrigeration down to 80K. <i>Optics Express</i> , 2014, 22, 7756.  | 3.4  | 68        |
| 25 | Orbital pacing and ocean circulation-induced collapses of the Mesoamerican monsoon over the past 22,000 y. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 9255-9260.                            | 7.1  | 67        |
| 26 | Extreme rainfall activity in the Australian tropics reflects changes in the El Niño/Southern Oscillation over the last two millennia. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 4576-4581. | 7.1  | 64        |
| 27 | Expansion and Contraction of the Indo-Pacific Tropical Rain Belt over the Last Three Millennia. <i>Scientific Reports</i> , 2016, 6, 34485.  | 3.3  | 60        |
| 28 | Younger Dryas to mid-Holocene environmental history of the lowlands of NW Transylvania, Romania. <i>Quaternary Research</i> , 2007, 68, 364-378.   | 1.7  | 56        |
| 29 | A highly resolved record of relative sea level in the western Mediterranean Sea during the last interglacial period. <i>Nature Geoscience</i> , 2018, 11, 860-864.   | 12.9 | 56        |
| 30 | Persistent northward North Atlantic tropical cyclone track migration over the past five centuries. <i>Scientific Reports</i> , 2016, 6, 37522.   | 3.3  | 53        |
| 31 | Uranium loss and aragonite-calcite age discordance in a calcitized aragonite stalagmite. <i>Quaternary Geochronology</i> , 2012, 14, 26-37.  | 1.4  | 51        |
| 32 | Tropical rainfall over the last two millennia: evidence for a low-latitude hydrologic seesaw. <i>Scientific Reports</i> , 2017, 7, 45809.  | 3.3  | 48        |
| 33 | A Last Glacial Maximum through middle Holocene stalagmite record of coastal Western Australia climate. <i>Quaternary Science Reviews</i> , 2013, 77, 101-112.  | 3.0  | 45        |
| 34 | Intertropical convergence zone variability in the Neotropics during the Common Era. <i>Science Advances</i> , 2020, 6, eaax3644.   | 10.3 | 45        |
| 35 | Caribbean and Pacific moisture sources on the Isthmus of Panama revealed from stalagmite and surface water δ <sup>18</sup> O gradients. <i>Geophysical Research Letters</i> , 2007, 34, .  | 4.0  | 41        |
| 36 | Episodes of late Holocene aridity recorded by stalagmites from Devil's icebox Cave, Central Missouri, USA. <i>Quaternary Research</i> , 2007, 68, 45-52.   | 1.7  | 40        |

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|----|---|------|-----------|
| 37 | Multidecadal to multicentury scale collapses of Northern Hemisphere monsoons over the past millennium. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 9651-9656. | 7.1  | 39        |
| 38 | Two millennia of Mesoamerican monsoon variability driven by Pacific and Atlantic synergistic forcing. <i>Quaternary Science Reviews</i> , 2017, 155, 100-113.   | 3.0  | 39        |
| 39 | Steady incision of Grand Canyon at the million year timeframe: A case for mantle-driven differential uplift. <i>Earth and Planetary Science Letters</i> , 2014, 397, 159-173.   | 4.4  | 37        |
| 40 | Alunite, Natroalunite and Hydrated Halloysite in Carlsbad Cavern and Lechuguilla Cave, New Mexico. <i>Clays and Clay Minerals</i> , 1996, 44, 843-850.  | 1.3  | 36        |
| 41 | A speleothem record of Holocene paleoclimate from the northern Wasatch Mountains, southeast Idaho, USA. <i>Quaternary International</i> , 2013, 310, 83-95.   | 1.5  | 35        |
| 42 | Speleothem evidence for the greening of the Sahara and its implications for the early human dispersal out of sub-Saharan Africa. <i>Quaternary Science Reviews</i> , 2018, 188, 67-76.                                | 3.0  | 34        |
| 43 | Wetter and cooler late Holocene climate in the southwestern United States from mites preserved in stalagmites. <i>Geology</i> , 2001, 29, 643.  | 4.4  | 32        |
| 44 | Synchronous millennial-scale climatic changes in the Great Basin and the North Atlantic during the last interglacial. <i>Geology</i> , 2007, 35, 619.   | 4.4  | 32        |
| 45 | Quaternary extension in the Rio Grande rift at elevated strain rates recorded in travertine deposits, central New Mexico. <i>Lithosphere</i> , 2014, 6, 3-16.   | 1.4  | 31        |
| 46 | Complexity of Saharan paleoclimate reconstruction and implications for modern human migration. <i>Earth and Planetary Science Letters</i> , 2019, 508, 74-84.   | 4.4  | 31        |
| 47 | Caribbean chronostratigraphy refined with U-Pb dating of a Miocene coral. <i>Geology</i> , 2008, 36, 151.   | 4.4  | 28        |
| 48 | Late Quaternary moisture export across Central America and to Greenland: evidence for tropical rainfall variability from Costa Rican stalagmites. <i>Quaternary Science Reviews</i> , 2009, 28, 3348-3360.            | 3.0  | 28        |
| 49 | Sulphuric acid speleogenesis and landscape evolution: Montecchio cave, Albegna river valley (Southern Tuscany, Italy). <i>Geomorphology</i> , 2015, 229, 134-143.   | 2.6  | 28        |
| 50 | Hydrological and climatological controls on radiocarbon concentrations in a tropical stalagmite. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 194, 233-252.   | 3.9  | 28        |
| 51 | Authigenesis of Trioctahedral Smectite in Magnesium-Rich Carbonate Speleothems in Carlsbad Cavern and Other Caves of the Guadalupe Mountains, New Mexico. <i>Clays and Clay Minerals</i> , 2000, 48, 317-321.         | 1.3  | 27        |
| 52 | Evidence for Pacific-modulated precipitation variability during the late Holocene from the southwestern USA. <i>Geophysical Research Letters</i> , 2006, 33, .  | 4.0  | 25        |
| 53 | Twentieth-century Azores High expansion unprecedented in the past 1,200 years. <i>Nature Geoscience</i> , 2022, 15, 548-553.  | 12.9 | 24        |
| 54 | Uranium series dating of Great Artesian Basin travertine deposits: Implications for palaeohydrogeology and palaeoclimate. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2018, 490, 163-177.              | 2.3  | 23        |

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|----|--|-----|-----------|
| 55 | Hypogenic origin of Provalata Cave, Republic of Macedonia: a distinct case of successive thermal carbonic and sulfuric acid speleogenesis. <i>International Journal of Speleology</i> , 2013, 42, 235-246.                                     | 1.0 | 23        |
| 56 | Decoupling of monsoon activity across the northern and southern Indo-Pacific during the Late Glacial. <i>Quaternary Science Reviews</i> , 2017, 176, 101-105.  | 3.0 | 22        |
| 57 | Unique achondrite Northwest Africa 11042: Exploring the melting and breakup of the L chondrite parent body. <i>Meteoritics and Planetary Science</i> , 2020, 55, 622-648.  | 1.6 | 22        |
| 58 | A stalagmite test of North Atlantic SST and Iberian hydroclimate linkages over the last two glacial cycles. <i>Climate of the Past</i> , 2018, 14, 1893-1913.  | 3.4 | 21        |
| 59 | Great Basin Paleoclimate and Aridity Linked to Arctic Warming and Tropical Pacific Sea Surface Temperatures. <i>Paleoceanography and Paleoclimatology</i> , 2020, 35, e2019PA003785.   | 2.9 | 20        |
| 60 | Abandonment of Unaweep Canyon (1.4–0.8 Ma), western Colorado: Effects of stream capture and anomalously rapid Pleistocene river incision. , 2014, 10, 428-446.   |     | 19        |
| 61 | Variable intensity of teleconnections during the late Holocene in subtropical North America from an isotopic study of speleothem from Florida. <i>Geophysical Research Letters</i> , 2007, 34, .   | 4.0 | 18        |
| 62 | Deglacial paleoclimate in the southwestern United States: an abrupt 18.6-ka cold event and evidence for a North Atlantic forcing of Termination I. <i>Quaternary Science Reviews</i> , 2011, 30, 3803-3811.                                    | 3.0 | 18        |
| 63 | Arctic cryosphere and Milankovitch forcing of Great Basin paleoclimate. <i>Scientific Reports</i> , 2017, 7, 12955.  | 3.3 | 18        |
| 64 | Hydroclimate variability from western Iberia (Portugal) during the Holocene: Insights from a composite stalagmite isotope record. <i>Holocene</i> , 2020, 30, 966-981.   | 1.7 | 18        |
| 65 | Climate variability in the western Mediterranean between 121 and 67-ka derived from a Mallorcan speleothem record. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2018, 506, 128-138.  | 2.3 | 16        |
| 66 | Reconstructing past climates using carbon isotopes from fulvic acids in cave sediments. <i>Chemical Geology</i> , 2013, 360-361, 1-9.  | 3.3 | 15        |
| 67 | Incision history of Glenwood Canyon, Colorado, USA, from the uranium-series analyses of water-table speleothems. <i>International Journal of Speleology</i> , 2013, 42, 193-202.   | 1.0 | 15        |
| 68 | <i>Paleozercos cavernicolus</i> , n.gen., n.sp., fossil mite from a cave in the Southwestern U.S.A. (Acari, Gamasida: Zerconidae), with a key to Nearctic genera of Zerconidae. <i>International Journal of Acarology</i> , 1995, 21, 253-259. | 0.7 | 14        |
| 69 | Sulfuric acid speleogenesis in the Majella Massif (Abruzzo, Central Apennines, Italy). <i>Geomorphology</i> , 2019, 333, 167-179.  | 2.6 | 14        |
| 70 | A mid-Holocene paleoprecipitation record from Belize. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2016, 463, 103-111.   | 2.3 | 13        |
| 71 | Climate history of the southwestern United States based on Estancia Basin hydrologic variability from 69 to 10 ka. <i>Quaternary Science Reviews</i> , 2018, 200, 237-252.   | 3.0 | 12        |
| 72 | Infrared Spectroscopic Biosignatures from Hidden Cave, New Mexico: Possible Applications for Remote Life Detection. <i>Geomicrobiology Journal</i> , 2014, 31, 929-941.  | 2.0 | 11        |

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|----|--|------|-----------|
| 73 | U-Pb dating of speleogenetic dolomite: A new sulfuric acid speleogenesis chronometer. <i>International Journal of Speleology</i> , 2016, 45, 103-109.  | 1.0  | 11        |
| 74 | Last interglacial sea-level history from speleothems: a global standardized database. <i>Earth System Science Data</i> , 2021, 13, 2077-2094.  | 9.9  | 10        |
| 75 | Extrapolar climate reversal during the last deglaciation. <i>Scientific Reports</i> , 2017, 7, 7157.   | 3.3  | 9         |
| 76 | Rapid speleothem $\delta^{13}\text{C}$ change in southwestern North America coincident with Greenland stadial 20 and the Toba (Indonesia) supereruption. <i>Geology</i> , 2017, 45, 843-846.   | 4.4  | 9         |
| 77 | Sea-level stands from the Western Mediterranean over the past 6.5 million years. <i>Scientific Reports</i> , 2021, 11, 261.  | 3.3  | 9         |
| 78 | Late Pleistocene and mid-Holocene climate change derived from a Florida speleothem. <i>Quaternary International</i> , 2017, 449, 75-82.  | 1.5  | 8         |
| 79 | U-Pb Dating of Cave Spar: A New Shallow Crust Landscape Evolution Tool. <i>Tectonics</i> , 2018, 37, 208-223.  | 2.8  | 8         |
| 80 | Orbital control of long-term moisture in the southwestern USA. <i>Geophysical Research Letters</i> , 2005, 32, n/a-n/a.  | 4.0  | 7         |
| 81 | A speleothem-based mid-Holocene precipitation reconstruction for West-Central Florida. <i>Holocene</i> , 2017, 27, 987-996.  | 1.7  | 7         |
| 82 | Hypogene Speleogenesis in the Guadalupe Mountains, New Mexico and Texas, USA. <i>Cave and Karst Systems of the World</i> , 2017, , 511-530.  | 0.1  | 7         |
| 83 | Hominin expansion into Central Asia during the last interglacial. <i>Earth and Planetary Science Letters</i> , 2018, 494, 148-152.   | 4.4  | 7         |
| 84 | 7. Depth and timing of calcite spar and $\text{Ca}$ -spar cave genesis: Implications for landscape evolution studies. <i>Special Paper of the Geological Society of America</i> , 2016, , 103-111.   | 0.5  | 6         |
| 85 | A karst hydrology model for the geomorphic evolution of Grand Canyon, Arizona, USA. <i>Earth-Science Reviews</i> , 2020, 208, 103279.  | 9.1  | 6         |
| 86 | Exceptionally stable preindustrial sea level inferred from the western Mediterranean Sea. <i>Science Advances</i> , 2022, 8, .   | 10.3 | 5         |
| 87 | The West Water Formation (Hualapai Plateau, Arizona, USA) as a calcrete-paleosol sequence, and its implications for the Paleogene-Neogene evolution of the southwestern Colorado Plateau. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2017, 479, 146-163. | 2.3  | 4         |
| 88 | Rates of river incision and scarp retreat in eastern and central Grand Canyon over the past half million years: Evidence for passage of a transient knickzone: <i>COMMENT.</i> , 2015, 11, 2130-2131.  |      | 3         |
| 89 | Paleoclimate records from speleothems. , 2019, , 784-793.  |      | 3         |
| 90 | Chronology of young basalt flows from lava tube gypsum U-series ages. <i>Quaternary Geochronology</i> , 2020, 59, 101083.  | 1.4  | 3         |

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|-----|---|-----|-----------|
| 91  | Spar caves as fossil hydrothermal systems: Timing and origin of ore deposits in the Delaware Basin and Guadalupe Mountains, New Mexico and Texas, USA. <i>International Journal of Speleology</i> , 2018, 47, 263-270.                                | 1.0 | 3         |
| 92  | Evaluating shallow flow-system response to climate change through analysis of spring deposits in southwestern Wisconsin, USA. <i>Hydrogeology Journal</i> , 2014, 22, 851-863.  | 2.1 | 2         |
| 93  | Hypogene Speleogenesis in the Southern Ozark Uplands, Mid-Continental United States. <i>Cave and Karst Systems of the World</i> , 2017, , 663-676.  | 0.1 | 2         |
| 94  | Silicates In Carbonate Speleothems, Guadalupe Mountains, New Mexico, U.S.A., 2007, , 303-311.   |     | 2         |
| 95  | Response to the correspondence article by Dr. Winograd. <i>Quaternary Science Reviews</i> , 2012, 45, 129-133.  | 3.0 | 1         |
| 96  | Carving Grand Canyon's inner gorge: A test of steady incision versus rapid knickzone migration. , 2018, 14, 2140-2156.  |     | 1         |
| 97  | CHANGES IN HYDROCLIMATE IN IBERIA IN THE LAST 1200 YEARS: INSIGHTS FROM SPELEOTHEM RECORDS FROM WESTERN PORTUGAL. , 2018, , .   |     | 1         |
| 98  | Drip water measurements from Carlsbad Cavern: implications towards paleoclimate records yielded from evaporative-zone stalagmites. <i>International Journal of Speleology</i> , 2018, 47, 201-212.  | 1.0 | 1         |
| 99  | Timing of sulfuric acid speleogenesis (SAS) as an indicator of canyon incision rates of the Shoshone and Bighorn rivers, Wyoming, USA. <i>Geomorphology</i> , 2022, 410, 108281.  | 2.6 | 1         |
| 100 | Climatic backdrop for Pueblo cultural development in the southwestern United States. <i>Scientific Reports</i> , 2022, 12, .  | 3.3 | 1         |
| 101 | Combined use of conventional and clumped carbonate stable isotopes to identify hydrothermal isotopic alteration in cave walls. <i>Scientific Reports</i> , 2022, 12, .  | 3.3 | 1         |
| 102 | Reply to Nott: Assessing biases in speleothem records of flood events. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E4637-E4637.   | 7.1 | 0         |
| 103 | A Conceptual Model for Hypogene Speleogenesis in Grand Canyon, Arizona. <i>Cave and Karst Systems of the World</i> , 2017, , 555-564.   | 0.1 | 0         |
| 104 | Reply to the comment by Kuzmin on Asmerom et al. (2018). <i>Earth and Planetary Science Letters</i> , 2019, 527, 115795.  | 4.4 | 0         |
| 105 | Reply to Comment on "Uranium series dating of Great Artesian Basin travertine deposits: Implications for palaeohydrogeology and palaeoclimate" by Uysal et al. (2019).. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2020, 537, 109421. | 2.3 | 0         |
| 106 | Paleoclimate Records from Speleothems. , 2012, , 577-585.   |     | 0         |
| 107 | CHARACTERIZATION OF LAYER-BOUNDING SURFACES IN A GREAT BASIN STALAGMITE UTILIZING BOTH PETROGRAPHIC AND HIGH-RESOLUTION STABLE ISOTOPE ANALYSES. , 2016, , .  |     | 0         |