

# Marvin D Lilley

## List of Publications by Year in descending order

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46  
papers

5,077  
citations

218592

26  
h-index

254106

43  
g-index

49  
all docs

49  
docs citations

49  
times ranked

3696  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | A Serpentinite-Hosted Ecosystem: The Lost City Hydrothermal Field. <i>Science</i> , 2005, 307, 1428-1434.   | 6.0  | 1,037     |
| 2  | An off-axis hydrothermal vent field near the Mid-Atlantic Ridge at 30° N. <i>Nature</i> , 2001, 412, 145-149.   | 13.7 | 997       |
| 3  | Anomalous CH <sub>4</sub> and NH <sub>4</sub> <sup>+</sup> concentrations at an unsedimented mid-ocean-ridge hydrothermal system. <i>Nature</i> , 1993, 364, 45-47.                                   | 13.7 | 312       |
| 4  | Gradients in the composition of hydrothermal fluids from the Endeavour segment vent field: Phase separation and brine loss. <i>Journal of Geophysical Research</i> , 1994, 99, 9561-9583.             | 3.3  | 233       |
| 5  | Magmatic events can produce rapid changes in hydrothermal vent chemistry. <i>Nature</i> , 2003, 422, 878-881.   | 13.7 | 221       |
| 6  | Seafloor eruptions and evolution of hydrothermal fluid chemistry. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 1997, 355, 369-386.                  | 1.6  | 220       |
| 7  | Rapid growth at deep-sea vents. <i>Nature</i> , 1994, 371, 663-664.   | 13.7 | 203       |
| 8  | Active submarine eruption of boninite in the northeastern Lau Basin. <i>Nature Geoscience</i> , 2011, 4, 799-806.   | 5.4  | 163       |
| 9  | Submarine venting of phase-separated hydrothermal fluids at Axial Volcano, Juan de Fuca Ridge. <i>Nature</i> , 1989, 340, 702-705.  | 13.7 | 145       |
| 10 | Submarine venting of liquid carbon dioxide on a Mariana Arc volcano. <i>Geochemistry, Geophysics, Geosystems</i> , 2006, 7, n/a-n/a.  | 1.0  | 139       |
| 11 | Estimation of heat and chemical fluxes from a seafloor hydrothermal vent field using radon measurements. <i>Nature</i> , 1988, 334, 604-607.  | 13.7 | 114       |
| 12 | Methane in surface waters of Oregon estuaries and rivers. <i>Limnology and Oceanography</i> , 1987, 32, 716-722.  | 1.6  | 112       |
| 13 | Seafloor deformation and forecasts of the April 2011 eruption at Axial Seamount. <i>Nature Geoscience</i> , 2012, 5, 474-477.   | 5.4  | 104       |
| 14 | Influence of subsurface biosphere on geochemical fluxes from diffuse hydrothermal fluids. <i>Nature Geoscience</i> , 2011, 4, 461-468.  | 5.4  | 100       |
| 15 | Mixing, reaction and microbial activity in the sub-seafloor revealed by temporal and spatial variation in diffuse flow vents at axial volcano. <i>Geophysical Monograph Series</i> , 2004, , 269-289. | 0.1  | 98        |
| 16 | Metagenomic identification of active methanogens and methanotrophs in serpentinite springs of the Voltri Massif, Italy. <i>PeerJ</i> , 2017, 5, e2945.  | 0.9  | 91        |
| 17 | Diffuse flow hydrothermal fluids from 9° 50' N East Pacific Rise: Origin, evolution and biogeochemical controls. <i>Geophysical Monograph Series</i> , 2004, , 245-268.                               | 0.1  | 83        |
| 18 | Venting of a separate CO <sub>2</sub> -rich gas phase from submarine arc volcanoes: Examples from the Mariana and Tonga-Kermadec arcs. <i>Journal of Geophysical Research</i> , 2008, 113, .          | 3.3  | 68        |

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|----|---|-----|-----------|
| 19 | Endeavour Segment of the Juan de Fuca Ridge: One of the Most Remarkable Places on Earth. <i>Oceanography</i> , 2012, 25, 44-61.   | 0.5 | 65        |
| 20 | Hydrothermal activity at the Arctic mid-ocean ridges. <i>Geophysical Monograph Series</i> , 2010, , 67-89.  | 0.1 | 52        |
| 21 | Helium isotope, $^{3}\text{H}$ , and $^{3}\text{He}$ , and $^{15}\text{N}$ signatures in the northern Lau basin: Distinguishing arc, back-arc, and hotspot affinities. <i>Geochemistry, Geophysics, Geosystems</i> , 2015, 16, 1133-1155. | 1.0 | 50        |
| 22 | Chemical and Biochemical Transformations in Hydrothermal Plumes. <i>Geophysical Monograph Series</i> , 2010, , 369-391.   | 0.1 | 46        |
| 23 | Discovery of Hydrothermal Vent Fields on Alarcón Rise and in Southern Pescadero Basin, Gulf of California. <i>Geochemistry, Geophysics, Geosystems</i> , 2018, 19, 4788-4819.   | 1.0 | 40        |
| 24 | Unique event plumes from a 2008 eruption on the Northeast Lau Spreading Center. <i>Geochemistry, Geophysics, Geosystems</i> , 2011, 12, n/a-n/a.  | 1.0 | 37        |
| 25 | Fluid composition of the sediment-influenced Loki's Castle vent field at the ultra-slow spreading Arctic Mid-Ocean Ridge. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 187, 156-178.  | 1.6 | 36        |
| 26 | Giant lacustrine pockmarks with subaqueous groundwater discharge and subsurface sediment mobilization. <i>Geophysical Research Letters</i> , 2015, 42, 3465-3473.   | 1.5 | 33        |
| 27 | Understanding a submarine eruption through time series hydrothermal plume sampling of dissolved and particulate constituents: West Mata, 2008-2012. <i>Geochemistry, Geophysics, Geosystems</i> , 2014, 15, 4631-4650.                    | 1.0 | 31        |
| 28 | Enhanced microbial methane oxidation in water from a deep-sea hydrothermal vent field at simulated in situ hydrostatic pressures. <i>Limnology and Oceanography</i> , 1991, 36, 565-570.  | 1.6 | 27        |
| 29 | Eruptive modes and hiatus of volcanism at West Mata seamount, NE Lau basin: 1996-2012. <i>Geochemistry, Geophysics, Geosystems</i> , 2014, 15, 4093-4115.   | 1.0 | 26        |
| 30 | Linkages between mineralogy, fluid chemistry, and microbial communities within hydrothermal chimneys from the Endeavour Segment, Juan de Fuca Ridge. <i>Geochemistry, Geophysics, Geosystems</i> , 2016, 17, 300-323.                     | 1.0 | 25        |
| 31 | Chemistry of vent fluids and its implications for subsurface conditions at Sea Cliff hydrothermal field, Gorda Ridge. <i>Geochemistry, Geophysics, Geosystems</i> , 2006, 7, n/a-n/a.   | 1.0 | 22        |
| 32 | Mantle-Derived Helium and Multiple Methane Sources in Gas Bubbles of Cold Seeps Along the Cascadia Continental Margin. <i>Geochemistry, Geophysics, Geosystems</i> , 2018, 19, 4476-4486.   | 1.0 | 22        |
| 33 | A seismic swarm and regional hydrothermal and hydrologic perturbations: The northern Endeavour segment, February 2005. <i>Geochemistry, Geophysics, Geosystems</i> , 2010, 11, .  | 1.0 | 20        |
| 34 | Volatiles in submarine environments: Food for life. <i>Geophysical Monograph Series</i> , 2004, , 167-189.  | 0.1 | 17        |
| 35 | Composition of shelf methane seeps on the Cascadia Continental Margin. <i>Geophysical Research Letters</i> , 2005, 32, .  | 1.5 | 17        |
| 36 | Hydrothermal venting and mineralization in the crater of Kikkem Jenny submarine volcano, Grenada (Lesser Antilles). <i>Geochemistry, Geophysics, Geosystems</i> , 2016, 17, 1000-1019.  | 1.0 | 10        |

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|----|---|-----|-----------|
| 37 | Parameters of subsurface brines and hydrothermal processes 12–15 months after the 1999 magmatic event at the Main Endeavor Field as inferred from in situ time series measurements of chloride and temperature. <i>Journal of Geophysical Research</i> , 2009, 114, . | 3.3 | 9         |
| 38 | Development and application of a gas chromatography method for simultaneously measuring H <sub>2</sub> and CH <sub>4</sub> in hydrothermal plume samples. <i>Limnology and Oceanography: Methods</i> , 2015, 13, 722-730.   | 1.0 | 9         |
| 39 | A preliminary 1-D model investigation of tidal variations of temperature and chlorinity at the Grotto mound, Endeavour Segment, Juan de Fuca Ridge. <i>Geochemistry, Geophysics, Geosystems</i> , 2017, 18, 75-92.  | 1.0 | 8         |
| 40 | Nitrous Oxide Release from Aerobic Riverine Deposits. <i>Journal of Freshwater Ecology</i> , 1987, 4, 209-218.  | 0.5 | 7         |
| 41 | Hydrogen and thiosulfate limits for growth of a thermophilic, autotrophic <i>Desulfurobacterium</i> species from a deep-sea hydrothermal vent. <i>Environmental Microbiology Reports</i> , 2016, 8, 196-200.  | 1.0 | 7         |
| 42 | Rapid variations in fluid chemistry constrain hydrothermal phase separation at the Main Endeavour Field. <i>Geochemistry, Geophysics, Geosystems</i> , 2017, 18, 531-543.   | 1.0 | 6         |
| 43 | The Seven Sisters Hydrothermal System: First Record of Shallow Hybrid Mineralization Hosted in Mafic Volcaniclasts on the Arctic Mid-Ocean Ridge. <i>Minerals (Basel, Switzerland)</i> , 2020, 10, 439.   | 0.8 | 6         |
| 44 | Extensive decentralized hydrogen export from the Atlantis Massif. <i>Geology</i> , 2021, 49, 851-856.   | 2.0 | 5         |
| 45 | Seafloor eruptions and evolution of hydrothermal fluid chemistry. , 1999, , 153-170.  |     | 4         |
| 46 | Hydrothermal Exploration of the Southern Chile Rise: Sediment-Hosted Venting at the Chile Triple Junction. <i>Geochemistry, Geophysics, Geosystems</i> , 2022, 23, .  | 1.0 | 0         |