# Steven Emerson

List of Publications by Year
in descending order

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|---|---|---|---|
| 65 papers | 6,117 citations | 94433 37 h-index | 114465 63 g-index |
| 68 all docs | 68 docs citations | 68 times ranked | 5089 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | The geochemistry of redox sensitive trace metals in sediments. Geochimica Et Cosmochimica Acta, 1999, 63, 1735-1750. | 3.9 | 991 |
| 2 | Ocean anoxia and the concentrations of molybdenum and vanadium in seawater. Marine Chemistry, 1991, 34, 177-196. | 2.3 | 643 |
| 3 | Experimental determination of the organic carbon flux from open-ocean surface waters. Nature, 1997, 389, 951-954. | 27.8 | 297 |
| 4 | The solubility of neon, nitrogen and argon in distilled water and seawater. Deep-Sea Research Part I: Oceanographic Research Papers, 2004, 51, 1517-1528. | 1.4 | 280 |
| 5 | Volcanic ash fuels anomalous plankton bloom in subarctic northeast Pacific. Geophysical Research Letters, 2010, 37, . | 4.0 | 238 |
| 6 | Trace metal evidence for changes in the redox environment associated with the transition from terrigenous clay to diatomaceous sediment, Saanich Inlet, BC. Marine Geology, 2001, 174, 355-369. | 2.1 | 163 |
| 7 | Annual net community production and the biological carbon flux in the ocean. Global Biogeochemical Cycles, 2014, 28, 14-28. | 4.9 | 160 |
| 8 | A model of oxygen reduction, denitrification, and organic matter mineralization in marine sediments1. Limnology and Oceanography, 1982, 27, 610-623. | 3.1 | 153 |
| 9 | O<sub>2</sub>, Ar, N<sub>2</sub>, and <sup>222</sup>Rn in surface waters of the subarctic Ocean: Net biological O<sub>2</sub> production. Global Biogeochemical Cycles, 1991, 5, 49-69. | 4.9 | 153 |
| 10 | Microbial mediation of Mn(II) and Co(II) precipitation at the O<sub>2</sub>/H<sub>2</sub>S interfaces in two anoxic fjords1. Limnology and Oceanography, 1984, 29, 1247-1258. | 3.1 | 131 |
| 11 | Temporal Trends in Apparent Oxygen Utilization in the Upper Pycnocline of the North Pacific: 1980â€“2000. Journal of Oceanography, 2004, 60, 139-147. | 1.7 | 129 |
| 12 | Accurate measurement of O2, N2, and Ar gases in water and the solubility of N2. Marine Chemistry, 1999, 64, 337-347. | 2.3 | 122 |
| 13 | Seasonal oxygen cycles and biological new production in surface waters of the subarctic Pacific Ocean. Journal of Geophysical Research, 1987, 92, 6535-6544. | 3.3 | 113 |
| 14 | Chemical tracers of productivity and respiration in the subtropical Pacific Ocean. Journal of Geophysical Research, 1995, 100, 15873. | 3.3 | 110 |
| 15 | The biological pump in the subtropical North Pacific Ocean: Nutrient sources, Redfield ratios, and recent changes. Global Biogeochemical Cycles, 2001, 15, 535-554. | 4.9 | 108 |
| 16 | Direct measurement of the diffusive sublayer at the deep sea floor using oxygen microelectrodes. Nature, 1989, 340, 623-626. | 27.8 | 100 |
| 17 | Organic Carbon Preservation in Marine Sediments. Geophysical Monograph Series, 0, , 78-87. | 0.1 | 100 |
| 18 | Oxygen Optode Sensors: Principle, Characterization, Calibration, and Application in the Ocean. Frontiers in Marine Science, 2018, 4, . | 2.5 | 100 |

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|---|---|---|---|
| 19 | Constraining bubble dynamics and mixing with dissolved gases: Implications for productivity measurements by oxygen mass balance. Journal of Marine Research, 2006, 64, 73-95. | 0.3 | 83 |
| 20 | Net community production in the deep euphotic zone of the subtropical North Pacific gyre from glider surveys. Limnology and Oceanography, 2008, 53, 2226-2236. | 3.1 | 82 |
| 21 | Estimating diffusivity from the mixed layer heat and salt balances in the <scp>N</scp>orth <scp>P</scp>acific. Journal of Geophysical Research: Oceans, 2015, 120, 7346-7362. | 2.6 | 82 |
| 22 | Vanadium in foraminiferal calcite as a tracer for changes in the areal extent of reducing sediments. Paleoceanography, 1996, 11, 665-678. | 3.0 | 80 |
| 23 | Physical-biological interactions in North Pacific oxygen variability. Journal of Geophysical Research, 2006, 111, . | 3.3 | 76 |
| 24 | Effect of Oxygen Tension, Mn(II) Concentration, and Temperature on the Microbially Catalyzed Mn(II) Oxidation Rate in a Marine Fjord. Applied and Environmental Microbiology, 1985, 50, 1268-1273. | 3.1 | 76 |
| 25 | Net biological oxygen production in the ocean: Remote in situ measurements of O<sub>2</sub> and N<sub>2</sub> in surface waters. Global Biogeochemical Cycles, 2008, 22, . | 4.9 | 75 |
| 26 | Ocean deoxygenation: Past, present, and future. Eos, 2011, 92, 409-410. | 0.1 | 75 |
| 27 | Mechanisms controlling the global oceanic distribution of the inert gases argon, nitrogen and neon. Geophysical Research Letters, 2002, 29, 35-1-35-4. | 4.0 | 73 |
| 28 | Microbial manganese(II) oxidation in the marine environment: a quantitative study. Biogeochemistry, 1986, 2, 149-161. | 3.5 | 68 |
| 29 | Fingerprints of climate change in North Pacific oxygen. Geophysical Research Letters, 2005, 32, . | 4.0 | 66 |
| 30 | In situ determination of oxygen and nitrogen dynamics in the upper ocean. Deep-Sea Research Part I: Oceanographic Research Papers, 2002, 49, 941-952. | 1.4 | 64 |
| 31 | Estimates of degradable organic carbon in deep-sea surface sediments from 14C concentrations. Nature, 1987, 329, 51-53. | 27.8 | 60 |
| 32 | Net biological oxygen production in the oceanâ€”II: Remote in situ measurements of O2 and N2 in subarctic pacific surface waters. Deep-Sea Research Part I: Oceanographic Research Papers, 2010, 57, 1255-1265. | 1.4 | 57 |
| 33 | Marine biological production from in situ oxygen measurements on a profiling float in the subarctic Pacific Ocean. Global Biogeochemical Cycles, 2015, 29, 2050-2060. | 4.9 | 57 |
| 34 | Denitrification and the nitrogen gas excess in the eastern tropical South Pacific oxygen deficient zone. Deep-Sea Research Part I: Oceanographic Research Papers, 2010, 57, 1092-1101. | 1.4 | 53 |
| 35 | Accurate oxygen measurements on modified <scp>A</scp>rgo floats using in situ air calibrations. Limnology and Oceanography: Methods, 2016, 14, 491-505. | 2.0 | 52 |
| 36 | The effect of the 2013â€“2016 high temperature anomaly in the subarctic Northeast Pacific (the â€œBlobâ€) on net community production. Biogeosciences, 2018, 15, 6747-6759. | 3.3 | 43 |

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| 37 | Annual net community production in the subtropical Pacific Ocean from in situ oxygen measurements on profiling floats. Global Biogeochemical Cycles, 2017, 31, 728-744. | 4.9 | 42 |
| 38 | Determination of Picogram Quantities of Vanadium in Calcite and Seawater by Isotope Dilution Inductively Coupled Plasma Mass Spectrometry with Electrothermal Vaporization. Analytical Chemistry, 1996, 68, 371-377. | 6.5 | 39 |
| 39 | The role of bubbles during airâ€sea gas exchange. Journal of Geophysical Research: Oceans, 2016, 121, 4360-4376. | 2.6 | 39 |
| 40 | Numerical hindcasting of sea surface pCO2 at Weathership Station Papa. Progress in Oceanography, 1993, 32, 319-351. | 3.2 | 33 |
| 41 | Fixed nitrogen loss from the eastern tropical North Pacific and Arabian Sea oxygen deficient zones determined from measurements of N<sub>2</sub>:Ar. Global Biogeochemical Cycles, 2012, 26, . | 4.9 | 33 |
| 42 | Ventilation Pathways for the North Pacific Oxygen Deficient Zone. Global Biogeochemical Cycles, 2019, 33, 875-890. | 4.9 | 32 |
| 43 | Using Noble Gases to Assess the Ocean's Carbon Pumps. Annual Review of Marine Science, 2019, 11, 75-103. | 11.6 | 30 |
| 44 | Vertical transport of anthropogenic mercury in the ocean. Global Biogeochemical Cycles, 2010, 24, . | 4.9 | 28 |
| 45 | On the role of seaâ€state in bubbleâ€mediated airâ€sea gas flux during a winter storm. Journal of Geophysical Research: Oceans, 2017, 122, 2671-2685. | 2.6 | 25 |
| 46 | The role of net community production in airâ€sea carbon fluxes at the North Pacific subarcticâ€subtropical boundary region. Limnology and Oceanography, 2010, 55, 2585-2596. | 3.1 | 24 |
| 47 | Biological productivity along Line P in the subarctic northeast Pacific: In situ versus incubationâ€based methods. Global Biogeochemical Cycles, 2012, 26, . | 4.9 | 24 |
| 48 | Constraining ventilation during deepwater formation using deep ocean measurements of the dissolved gas ratios <sup>40</sup>Ar/<sup>36</sup>Ar, N<sub>2</sub>/Ar, and Kr/Ar. Journal of Geophysical Research, 2010, 115, . | 3.3 | 23 |
| 49 | Airâ€Sea Gas Transfer: Determining Bubble Fluxes With In Situ N<sub>2</sub> Observations. Journal of Geophysical Research: Oceans, 2019, 124, 2716-2727. | 2.6 | 23 |
| 50 | Gas supersaturation in the surface ocean: The roles of heat flux, gas exchange, and bubbles. Deep-Sea Research Part II: Topical Studies in Oceanography, 1996, 43, 569-589. | 1.4 | 22 |
| 51 | Quantifying the flux of CaCO<sub>3</sub>and organic carbon from the surface ocean using in situ measurements of O<sub>2</sub>, N<sub>2</sub>, pCO<sub>2</sub>, and pH. Global Biogeochemical Cycles, 2011, 25, n/a-n/a. | 4.9 | 22 |
| 52 | Using Noble Gas Measurements to Derive Airâ€Sea Process Information and Predict Physical Gas Saturations. Geophysical Research Letters, 2017, 44, 9901-9909. | 4.0 | 17 |
| 53 | Impact of diapycnal mixing on the saturation state of argon in the subtropical North Pacific. Geophysical Research Letters, 2007, 34, . | 4.0 | 16 |
| 54 | Argon supersaturation indicates low decadalâ€scale vertical mixing in the ocean thermocline. Geophysical Research Letters, 2012, 39, . | 4.0 | 15 |

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|---|---|---|---|
| 55 | In Situ Estimates of Net Primary Production in the Western North Atlantic With Argo Profiling Floats. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2020JG006116. | 3.0 | 15 |
| 56 | Physicochemical and biological controls on primary and net community production across northeast Pacific seascapes. Limnology and Oceanography, 2014, 59, 2013-2027. | 3.1 | 14 |
| 57 | The Subtropical Ocean's Biological Carbon Pump Determined From O<sub>2</sub> and DIC/DI<sup>13</sup>C Tracers. Geophysical Research Letters, 2019, 46, 5361-5368. | 4.0 | 14 |
| 58 | Biological and physical controls on the oxygen cycle in the Kuroshio Extension from an array of profiling floats. Deep-Sea Research Part I: Oceanographic Research Papers, 2018, 141, 51-70. | 1.4 | 13 |
| 59 | Regional Pattern of the Ocean's Biological Pump Based on Geochemical Observations. Geophysical Research Letters, 2020, 47, e2020GL088098. | 4.0 | 13 |
| 60 | Deepâ€sea nutrient loss inferred from the marine dissolved N<sub>2</sub>/Ar ratio. Geophysical Research Letters, 2013, 40, 1149-1153. | 4.0 | 11 |
| 61 | Seaglider Surveys at Ocean Station Papa: Oxygen Kinematics and Upperâ€Ocean Metabolism. Journal of Geophysical Research: Oceans, 2018, 123, 6408-6427. | 2.6 | 11 |
| 62 | Subsurface ocean argon disequilibrium reveals the equatorial Pacific shadow zone. Geophysical Research Letters, 2006, 33, n/a-n/a. | 4.0 | 10 |
| 63 | Suppression of CO<sub>2</sub> Outgassing by Gas Bubbles Under a Hurricane. Geophysical Research Letters, 2020, 47, e2020GL090249. | 4.0 | 10 |
| 64 | In situ and remote monitoring of water quality in Puget Sound: The ORCA time-series. , 2006, , . | | 5 |
| 65 | Skin Temperature Correction for Calculations of Airâ€Sea Oxygen Flux and Annual Net Community Production. Geophysical Research Letters, 2022, 49, . | 4.0 | 4 |