

Assaf Vardi

List of Publications by Year in descending order

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86
papers

8,981
citations

76031

42
h-index

62345

84
g-index

105
all docs

105
docs citations

105
times ranked

8946
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | The Genome of the Diatom <i>Thalassiosira Pseudonana</i> : Ecology, Evolution, and Metabolism. <i>Science</i> , 2004, 306, 79-86. | 6.0 | 1,862 |
| 2 | The <i>Phaeodactylum</i> genome reveals the evolutionary history of diatom genomes. <i>Nature</i> , 2008, 456, 239-244. | 13.7 | 1,458 |
| 3 | Programmed cell death of the dinoflagellate <i>Peridinium gatunense</i> is mediated by CO ₂ limitation and oxidative stress. <i>Current Biology</i> , 1999, 9, 1061-1064. | 1.8 | 270 |
| 4 | A Stress Surveillance System Based on Calcium and Nitric Oxide in Marine Diatoms. <i>PLoS Biology</i> , 2006, 4, e60. | 2.6 | 248 |
| 5 | Viral Glycosphingolipids Induce Lytic Infection and Cell Death in Marine Phytoplankton. <i>Science</i> , 2009, 326, 861-865. | 6.0 | 229 |
| 6 | Identification of the algal dimethyl sulfide-releasing enzyme: A missing link in the marine sulfur cycle. <i>Science</i> , 2015, 348, 1466-1469. | 6.0 | 199 |
| 7 | Oceanographic and Biogeochemical Insights from Diatom Genomes. <i>Annual Review of Marine Science</i> , 2010, 2, 333-365. | 5.1 | 189 |
| 8 | Host-virus dynamics and subcellular controls of cell fate in a natural coccolithophore population. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 19327-19332. | 3.3 | 189 |
| 9 | Towards clarification of the biological role of microcystins, a family of cyanobacterial toxins. <i>Environmental Microbiology</i> , 2007, 9, 965-970. | 1.8 | 187 |
| 10 | Vortical ciliary flows actively enhance mass transport in reef corals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 13391-13396. | 3.3 | 173 |
| 11 | Inhibition of growth and photosynthesis of the dinoflagellate <i>Peridinium gatunense</i> by <i>Microcystis</i> sp. (cyanobacteria): A novel allelopathic mechanism. <i>Limnology and Oceanography</i> , 2002, 47, 1656-1663. | 1.6 | 169 |
| 12 | Dinoflagellate-Cyanobacterium Communication May Determine the Composition of Phytoplankton Assemblage in a Mesotrophic Lake. <i>Current Biology</i> , 2002, 12, 1767-1772. | 1.8 | 162 |
| 13 | Virocell Metabolism: Metabolic Innovations During Host-Virus Interactions in the Ocean. <i>Trends in Microbiology</i> , 2016, 24, 821-832. | 3.5 | 160 |
| 14 | Mapping the diatom redox-sensitive proteome provides insight into response to nitrogen stress in the marine environment. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 2740-2745. | 3.3 | 147 |
| 15 | Insights into the Evolution of Multicellularity from the Sea Lettuce Genome. <i>Current Biology</i> , 2018, 28, 2921-2933.e5. | 1.8 | 134 |
| 16 | Rewiring Host Lipid Metabolism by Large Viruses Determines the Fate of <i>Emiliania huxleyi</i> , a Bloom-Forming Alga in the Ocean. <i>Plant Cell</i> , 2014, 26, 2689-2707. | 3.1 | 132 |
| 17 | A Diatom Gene Regulating Nitric-Oxide Signaling and Susceptibility to Diatom-Derived Aldehydes. <i>Current Biology</i> , 2008, 18, 895-899. | 1.8 | 126 |
| 18 | An ecological and evolutionary context for integrated nitrogen metabolism and related signaling pathways in marine diatoms. <i>Current Opinion in Plant Biology</i> , 2006, 9, 264-273. | 3.5 | 114 |

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|----|--|------|-----------|
| 19 | Coccolithovirus facilitation of carbon export in the North Atlantic. <i>Nature Microbiology</i> , 2018, 3, 537-547. | 5.9 | 114 |
| 20 | Potential impact of stress activated retrotransposons on genome evolution in a marine diatom. <i>BMC Genomics</i> , 2009, 10, 624. | 1.2 | 112 |
| 21 | Decoupling Physical from Biological Processes to Assess the Impact of Viruses on a Mesoscale Algal Bloom. <i>Current Biology</i> , 2014, 24, 2041-2046. | 1.8 | 110 |
| 22 | Viral infection of the marine alga <i>Emiliana huxleyi</i> triggers lipidome remodeling and induces the production of highly saturated triacylglycerol. <i>New Phytologist</i> , 2016, 210, 88-96. | 3.5 | 98 |
| 23 | Digital expression profiling of novel diatom transcripts provides insight into their biological functions. <i>Genome Biology</i> , 2010, 11, R85. | 13.9 | 97 |
| 24 | IDENTIFICATION AND COMPARATIVE GENOMIC ANALYSIS OF SIGNALING AND REGULATORY COMPONENTS IN THE DIATOM THALASSIOSIRA PSEUDONANA. <i>Journal of Phycology</i> , 2007, 43, 585-604. | 1.0 | 87 |
| 25 | A chemical arms race at sea mediates algal host-virus interactions. <i>Current Opinion in Microbiology</i> , 2011, 14, 449-457. | 2.3 | 84 |
| 26 | Infection of phytoplankton by aerosolized marine viruses. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 6643-6647. | 3.3 | 79 |
| 27 | Elucidating the composition and conservation of the autophagy pathway in photosynthetic eukaryotes. <i>Autophagy</i> , 2015, 11, 701-715. | 4.3 | 79 |
| 28 | A coral-on-a-chip microfluidic platform enabling live-imaging microscopy of reef-building corals. <i>Nature Communications</i> , 2016, 7, 10860. | 5.8 | 79 |
| 29 | Modulation of host ROS metabolism is essential for viral infection of a bloom-forming coccolithophore in the ocean. <i>ISME Journal</i> , 2016, 10, 1742-1754. | 4.4 | 79 |
| 30 | Phosphorus starvation induces membrane remodeling and recycling in <i>Emiliana huxleyi</i> . <i>New Phytologist</i> , 2016, 211, 886-898. | 3.5 | 78 |
| 31 | Bacterial virulence against an oceanic bloom-forming phytoplankter is mediated by algal DMSP. <i>Science Advances</i> , 2018, 4, eaau5716. | 4.7 | 78 |
| 32 | Hijacking of an autophagy-like process is critical for the life cycle of a DNA virus infecting oceanic algal blooms. <i>New Phytologist</i> , 2014, 204, 854-863. | 3.5 | 71 |
| 33 | Microbial metabolites in the marine carbon cycle. <i>Nature Microbiology</i> , 2022, 7, 508-523. | 5.9 | 71 |
| 34 | Novel molecular determinants of viral susceptibility and resistance in the lipidome of <i>Emiliana huxleyi</i> . <i>Environmental Microbiology</i> , 2014, 16, 1137-1149. | 1.8 | 68 |
| 35 | Synchronization of cell death in a dinoflagellate population is mediated by an excreted thiol protease. <i>Environmental Microbiology</i> , 2007, 9, 360-369. | 1.8 | 64 |
| 36 | Apoptosis-Inducing Galactolipids from a Cultured Marine Diatom, <i>Phaeodactylum tricorutum</i> . <i>Journal of Natural Products</i> , 2008, 71, 1197-1201. | 1.5 | 60 |

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|----|---|-----|-----------|
| 37 | Early perturbation in mitochondria redox homeostasis in response to environmental stress predicts cell fate in diatoms. <i>ISME Journal</i> , 2015, 9, 385-395. | 4.4 | 59 |
| 38 | Viral serine palmitoyltransferase induces metabolic switch in sphingolipid biosynthesis and is required for infection of a marine alga. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E1907-16. | 3.3 | 58 |
| 39 | Communication via extracellular vesicles enhances viral infection of a cosmopolitan alga. <i>Nature Microbiology</i> , 2017, 2, 1485-1492. | 5.9 | 56 |
| 40 | A single-cell view on alga-virus interactions reveals sequential transcriptional programs and infection states. <i>Science Advances</i> , 2020, 6, eaba4137. | 4.7 | 55 |
| 41 | Extracellular vesicles – new players in cell-cell communication in aquatic environments. <i>Current Opinion in Microbiology</i> , 2018, 43, 148-154. | 2.3 | 54 |
| 42 | Effects of phytoplankton physiology on export flux. <i>Marine Ecology - Progress Series</i> , 2008, 354, 3-19. | 0.9 | 54 |
| 43 | Expression profiling of host and virus during a coccolithophore bloom provides insights into the role of viral infection in promoting carbon export. <i>ISME Journal</i> , 2018, 12, 704-713. | 4.4 | 53 |
| 44 | In plaque-mass spectrometry imaging of a bloom-forming alga during viral infection reveals a metabolic shift towards odd-chain fatty acid lipids. <i>Nature Microbiology</i> , 2019, 4, 527-538. | 5.9 | 52 |
| 45 | DddD Is a CoA-Transferase/Lyase Producing Dimethyl Sulfide in the Marine Environment. <i>Biochemistry</i> , 2014, 53, 5473-5475. | 1.2 | 51 |
| 46 | Visualizing active viral infection reveals diverse cell fates in synchronized algal bloom demise. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, . | 3.3 | 51 |
| 47 | Zooplankton May Serve as Transmission Vectors for Viruses Infecting Algal Blooms in the Ocean. <i>Current Biology</i> , 2014, 24, 2592-2597. | 1.8 | 48 |
| 48 | Expanding Tara Oceans Protocols for Underway, Ecosystemic Sampling of the Ocean-Atmosphere Interface During Tara Pacific Expedition (2016-2018). <i>Frontiers in Marine Science</i> , 2019, 6, . | 1.2 | 42 |
| 49 | Cell signaling in marine diatoms. <i>Communicative and Integrative Biology</i> , 2008, 1, 134-136. | 0.6 | 40 |
| 50 | Targeted and untargeted lipidomics of <i>Emiliana huxleyi</i> viral infection and life cycle phases highlights molecular biomarkers of infection, susceptibility, and ploidy. <i>Frontiers in Marine Science</i> , 2015, 2, . | 1.2 | 37 |
| 51 | Dimethyl sulfide mediates microbial predator-prey interactions between zooplankton and algae in the ocean. <i>Nature Microbiology</i> , 2021, 6, 1357-1366. | 5.9 | 33 |
| 52 | Viral infection of algal blooms leaves a unique metabolic footprint on the dissolved organic matter in the ocean. <i>Science Advances</i> , 2021, 7, . | 4.7 | 32 |
| 53 | Improving transcriptome construction in non-model organisms: integrating manual and automated gene definition in <i>Emiliana huxleyi</i> . <i>BMC Genomics</i> , 2014, 15, 148. | 1.2 | 31 |
| 54 | <i>N</i> -Acyl Homoserine Lactone Derived Tetramic Acids Impair Photosynthesis in <i>Phaeodactylum tricornutum</i> . <i>ACS Chemical Biology</i> , 2019, 14, 198-203. | 1.6 | 29 |

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|----|--|------|-----------|
| 55 | Morphological switch to a resistant subpopulation in response to viral infection in the bloom-forming coccolithophore <i>Emiliania huxleyi</i> . <i>PLoS Pathogens</i> , 2017, 13, e1006775. | 2.1 | 29 |
| 56 | Dispersion/dilution enhances phytoplankton blooms in low-nutrient waters. <i>Nature Communications</i> , 2017, 8, 14868. | 5.8 | 28 |
| 57 | <i>Vibrio coralliilyticus</i> infection triggers a behavioural response and perturbs nutritional exchange and tissue integrity in a symbiotic coral. <i>ISME Journal</i> , 2019, 13, 989-1003. | 4.4 | 27 |
| 58 | Chronic iron limitation confers transient resistance to oxidative stress in marine diatoms. <i>Plant Physiology</i> , 2016, 172, pp.00840.2016. | 2.3 | 26 |
| 59 | Expansion of the redox-sensitive proteome coincides with the plastid endosymbiosis. <i>Nature Plants</i> , 2017, 3, 17066. | 4.7 | 26 |
| 60 | Diatom genomes come of age. <i>Genome Biology</i> , 2008, 9, 245. | 13.9 | 25 |
| 61 | Biotic interactions as drivers of algal origin and evolution. <i>New Phytologist</i> , 2017, 216, 670-681. | 3.5 | 25 |
| 62 | Using NanoSIMS coupled with microfluidics to visualize the early stages of coral infection by <i>Vibrio coralliilyticus</i> . <i>BMC Microbiology</i> , 2018, 18, 39. | 1.3 | 20 |
| 63 | Light-dependent single-cell heterogeneity in the chloroplast redox state regulates cell fate in a marine diatom. <i>ELife</i> , 2019, 8, . | 2.8 | 20 |
| 64 | Unmasking cellular response of a bloom-forming alga to viral infection by resolving expression profiles at a single-cell level. <i>PLoS Pathogens</i> , 2019, 15, e1007708. | 2.1 | 19 |
| 65 | Ambiguous evidence for assigning DddQ as a dimethylsulfoniopropionate lyase and oceanic dimethylsulfide producer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E2078-9. | 3.3 | 17 |
| 66 | Ecological significance of extracellular vesicles in modulating host-virus interactions during algal blooms. <i>ISME Journal</i> , 2021, 15, 3714-3721. | 4.4 | 17 |
| 67 | Diurnal fluctuations in chloroplast GSH redox state regulate susceptibility to oxidative stress and cell fate in a bloom-forming diatom. <i>Journal of Phycology</i> , 2018, 54, 329-341. | 1.0 | 16 |
| 68 | Assigning the Algal Source of Dimethylsulfide Using a Selective Lyase Inhibitor. <i>ACS Chemical Biology</i> , 2017, 12, 41-46. | 1.6 | 15 |
| 69 | Infection Dynamics of a Bloom-Forming Alga and Its Virus Determine Airborne Coccolith Emission from Seawater. <i>IScience</i> , 2018, 6, 327-335. | 1.9 | 14 |
| 70 | Decoupling atmospheric and oceanic factors affecting aerosol loading over a cluster of mesoscale North Atlantic eddies. <i>Geophysical Research Letters</i> , 2014, 41, 4075-4081. | 1.5 | 13 |
| 71 | Biochemical Characterization of a Novel Redox-Regulated Metacaspase in a Marine Diatom. <i>Frontiers in Microbiology</i> , 2021, 12, 688199. | 1.5 | 13 |
| 72 | Terrestrial and marine influence on atmospheric bacterial diversity over the north Atlantic and Pacific Oceans. <i>Communications Earth & Environment</i> , 2022, 3, . | 2.6 | 13 |

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|----|--|------|-----------|
| 73 | Nitric oxide mediates oxylipin production and grazing defense in diatoms. <i>Environmental Microbiology</i> , 2020, 22, 629-645. | 1.8 | 12 |
| 74 | Microscale tracking of coral-vibrio interactions. <i>ISME Communications</i> , 2021, 1, . | 1.7 | 12 |
| 75 | Bistability in oxidative stress response determines the migration behavior of phytoplankton in turbulence. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, . | 3.3 | 10 |
| 76 | Tara Pacific Expeditionâ€™s Atmospheric Measurements of Marine Aerosols across the Atlantic and Pacific Oceans: Overview and Preliminary Results. <i>Bulletin of the American Meteorological Society</i> , 2020, 101, E536-E554. | 1.7 | 9 |
| 77 | Algal viruses hitchhiking on zooplankton across phytoplankton blooms. <i>Communicative and Integrative Biology</i> , 2015, 8, e1029210. | 0.6 | 7 |
| 78 | An <i>Emiliana huxleyi</i> pan-transcriptome reveals basal strain specificity in gene expression patterns. <i>Scientific Reports</i> , 2021, 11, 20795. | 1.6 | 7 |
| 79 | Complete Genome Sequence of <i>Emiliana huxleyi</i> Virus Strain M1, Isolated from an Induced <i>E. huxleyi</i> Bloom in Bergen, Norway. <i>Microbiology Resource Announcements</i> , 2022, 11, e0007122. | 0.3 | 6 |
| 80 | Complete Genome Sequence of <i>Sulfitobacter</i> sp. Strain D7, a Virulent Bacterium Isolated from an <i>Emiliana huxleyi</i> Algal Bloom in the North Atlantic. <i>Microbiology Resource Announcements</i> , 2018, 7, . | 0.3 | 5 |
| 81 | Magnesium-Rich Nanometric Layer in the Skeleton of <i>Pocillopora damicornis</i> With Possible Involvement in Fibrous Aragonite Deposition. <i>Frontiers in Marine Science</i> , 2018, 5, . | 1.2 | 5 |
| 82 | Diel cycle of sea spray aerosol concentration. <i>Nature Communications</i> , 2021, 12, 5476. | 5.8 | 5 |
| 83 | An Ocean of Signals: Intracellular and Extracellular Signaling in Diatoms. , 2022, , 641-678. | | 3 |
| 84 | Pharmacokinetics of Endobronchial Tolazoline Administration in Dogs. <i>American Journal of Perinatology</i> , 1999, 16, 1-6. | 0.6 | 2 |
| 85 | Correction: Diatom genomes come of age. <i>Genome Biology</i> , 2010, 11, 401. | 13.9 | 0 |
| 86 | Infection Dynamics of a Bloom-Forming Alga and Its Virus Determine Airborne Coccolith Emission from Seawater. <i>SSRN Electronic Journal</i> , 0, , . | 0.4 | 0 |