# Shlomit Sharoni

*Curriculum Vitae*

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*Massachusetts Institute of Technology (MIT)*
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## Education

2009–2011 **BSc in Chemistry**, *Hebrew University*, Israel

2012–2014 **MSc in Chemistry**, *Department of Earth and Planetary Sciences, Weizmann Institute of Science*, Israel, *Supervisors: Prof. Ilan Koren and Prof. Assaf Vardi*

2015–2020 **PhD in Chemistry**, *Department of Earth and Planetary Sciences, Weizmann Institute of Science*, Israel, *Supervisor: Prof. Itay Halevy*
Maternity leave: March–September 2018

2021 **Postdoctoral Fellow, Data Science Research Center**, *Department of Marine Geosciences, University of Haifa*, Israel, *Supervisor: Dr. Yoav Lehahn*
Maternity leave: September 2021–March 2022

2022–present **Simons Foundation, Rothschild, and Fulbright Postdoctoral Fellow**, *Department of Earth, Atmospheric and Planetary Sciences, Massachusetts Institute of Technology (MIT)*, USA, *Supervisor: Prof. Mick Follows*

## Awards and Fellowships

- 2013: Best poster award, *Aerial dispersal of marine phytoplankton viruses*, Surface Ocean Lower Atmosphere Study (SOLAS) Summer School and Conference, Xiamen, China.
- 2013: Best oral presentation award, *Infection of bloom-forming phytoplankton by aerosolized marine viruses*, SOLAS Summer School and Conference, Xiamen, China.
- 2016–2017: Rieger Foundation U.S.A. Environmental Studies Fellowship Program.
- 2017: Best oral presentation award, *Nutrient ratios in marine particulate organic matter are predicted by the population structure of well-adapted phytoplankton*, The Israeli Association of Aquatic Sciences, Haifa, Israel.
- 2018: Best poster award, Annual Conference for Science and the Environment, Weizmann Institute of Science, Rehovot, Israel.
- 2020–2021: Data Science Research Center Postdoctoral Fellowship, University of Haifa ($31,000).
- 2021: Outstanding Reviewer Award, *Nature Communications Earth & Environment*.
- 2022–2023: Fulbright Postdoctoral Fellowship ($54,000).
- 2022–2023: Rothschild Postdoctoral Fellowship ($90,000).
- 2023–2025: European Molecular Biology Organization (EMBO) Postdoctoral Fellowship (declined).
- 2023–2026: Simons Foundation Postdoctoral Fellowship ($270,000).

## Research Articles

H-index 9 (Google Scholar)
Total Citations 516 (Google Scholar)

Below are journal impact factors and citation counts (Google Scholar):

1. Lehahn, Y., Koren, I., Schatz, D., Frada, M.J., Sheyn, U., Boss, E., Efrati, S., Rudich, Y., Trainic, M., **Sharoni, S.**, Vardi, A. (2014). Decoupling physical from biological processes to assess the impact of viruses on a mesoscale algal bloom. *Current Biology*, 24(17): 2041–2046. [IF: 9.3; cited 138 times]
2. Lehahn, Y., Koren, I., Rudich, Y., Bidle, K.D., Trainic, M., Flores, J.M., **Sharoni, S.**, Vardi, A. (2014). Decoupling oceanic and atmospheric factors affecting aerosol loading over a cluster of mesoscale North Atlantic eddies. *Geophysical Research Letters*, 41(11): 4075–4081. [IF: 5.1; cited 19 times]
3. **Sharoni, S.**, Trainic, M., Schatz, D., Lehahn, Y., Flores, J.M., Ben Dor, S., Rudich, Y., Koren, I., Vardi, A. (2015). Infection of bloom-forming phytoplankton by aerosolized marine viruses. *Proceedings of the National Academy of Sciences*, 112(21): 6643–6647. [IF: 10.6; cited 104 times]
4. Lehahn, Y., Koren, I., **Sharoni, S.**, O'dovido, F., Boss, E. (2017). Dispersion/dilution enhances phytoplankton blooms in low-nutrient waters. *Nature Communications*, 8(1): 14868. [IF: 17.2; cited 59 times]
5. Trainic, M., Koren, I., **Sharoni, S.**, Frada, M., Segev, L., Rudich, Y., Vardi, A. (2018). Infection dynamics of a bloom-forming alga and its virus determine airborne coccolith emission from seawater. *iScience*, 6: 327–335. [IF: 4.7; cited 22 times]
6. **Sharoni, S.** and Halevy, I. (2020). Nutrient ratios in marine particulate organic matter are predicted by the population structure of well-adapted phytoplankton. *Science Advances*, 6(29): eaaw9371. [IF: 14.1; cited 65 times]
7. Crockford, P., Kunzmann, M., Blattler, C., Kalderon-Asael, B., Murphy, J., Ahm, A.S., **Sharoni, S.**, Halverson, G., Planavsky, N., Halevy, I., Higgins, J. (2020). Reconstructing Neoproterozoic seawater chemistry from early diagenetic dolomite. *Geology*, 49(4): 442–446. [IF: 5.2; cited 50 times]
8. **Sharoni, S.** and Halevy, I. (2022). Geologic controls on phytoplankton elemental composition. *Proceedings of the National Academy of Sciences*, 119(1): e2113263118. [IF: 10.6; cited 24 times]
9. **Sharoni, S.** and Halevy, I. (2023). Rates of seafloor and continental weathering govern Phanerozoic marine phosphate levels. *Nature Geoscience*, 16(1): 75–81. [IF: 20; cited 31 times]
10. Dikstein, T., Antler, G., Pellerin, A., **Sharoni, S.**, Frada, M.J. (2024). Viral infection of coccolithophore host induces shifts in particulate organic matter stoichiometry. *Limnology and Oceanography*, 69(7): 1606–1617. [IF: 4.5; cited 2 times]

### Articles Submitted

11. **Sharoni, S.**, Inomura, K., Dutkiewicz, S., Jahn, O., Finkel, Z., Irwin, A., Monier, E., Follows, M.J. Biochemical remodeling of phytoplankton cell composition. *under review in Nature Climate Change*. [IF: 32.9]
12. **Sharoni, S.**, Inomura, K., Dutkiewicz, S., Jahn, O., Britten, G., Follows, M.J. Cellular-level control on global ocean deoxygenation driven by phytoplankton ecophysiology. *BioRxiv, https://doi.org/10.21203/rs.3.rs-6782543/v1*.
13. Finkel, Z., Irwin, A., Amirian, M., **Sharoni, S.**, Follows, M.J. An ocean field test of the growth rate hypothesis. Submitted.

## Conference Proceedings

Armin, G., **Sharoni, S.**, Deutsch, C.A., Inomura, K. (2024). Quantifying temperature dependencies of elemental stoichiometry and macromolecular allocation in marine phytoplankton. *AGU Ocean Sciences Meeting, New Orleans, USA.*

## Participation in Scientific Conferences

- Poster: Surface Ocean Lower Atmosphere Study (SOLAS) summer school and conference, Xiamen (Chine), 2013. **Best poster award**
- Oral communication: Surface Ocean Lower Atmosphere Study (SOLAS) summer school and conference, Xiamen (Chine), 2013. **Best oral presentation award**
- Poster: Surface Ocean Lower Atmosphere Study (SOLAS) Symposium, Weizmann Institute of Science (Israel), 2014.
- Poster: The Israeli Association of Aquatic Sciences, Haifa (Israel), 2017. **Best oral presentation award**
- Poster: Annual Conference for Science and the Environment, Weizmann Institute of Science, Rehovot (Israel), 2018. **Best poster award**
- Poster: Marine Microbes, Gordon Research Conference, Lucca (Italy), 2018.
- Poster: Trait-based Approaches to Ocean Life, Buckinghamshire (UK), 2019.
- Poster: Israeli Association for Aquatic Sciences (Virtual Conference), 2021.
- Workshop: Adaptive Modelling of Dynamic Traits Workshop, GEOMAR (Virtual Workshop), 2021.
- Poster: Trait-based Approaches to Ocean Life (Virtual Conference), 2022.
- Symposium: CBIOMES Workshop on Diel Process, Boston (USA), 2023.
- Poster: Ocean Carbon and Biogeochemistry (OCB) Workshop, Woods Hole (USA), 2023.
- Poster: Workshop on Numerical Circulation and Ecosystem Modeling, New York (USA), 2024.
- **Invited talk**: The CBIOME Annual Meeting, New York (USA), 2023.
- Oral communication: Trait-Based Approaches to Ocean Life Copenhagen (Denmark), 2023.
- **Keynote speaker**: The Israeli Association for Aquatic Sciences, Steinhardt Museum of Natural History (Israel), 2024.
- Oral communication: Ocean Science Meeting (AGU), New Orleans (USA), 2024.
- Poster: The Israeli Association for Aquatic Sciences, Eilat (Israel), 2024.
- **Invited talk**: The CBIOME Annual Meeting, New York (USA), 2025.
- **Invited discussion leader**: Chemical Oceanography, Gordon Research Seminar, New Hampshire (USA), 2025.
- Poster presentation: Chemical Oceanography, Gordon Research Conference, New Hampshire (USA), 2025.
- **Invited talk**: Chemical Oceanography, Gordon Research Conference, New Hampshire (USA), 2025.

## Selected Invited Lectures

- Department of Marine Geosciences, Haifa (Israel), 2020.
- The coupled evolution of biogeochemical cycles and phytoplankton elemental composition, Interuniversity Institute for Marine Sciences, Eilat (Israel), 2021.
- Controls on the chemical composition of marine organic matter today and over Earth history, Department of Marine and Coastal Sciences, Rutgers University, New Jersey (USA), 2023.
- The Effect of Seafloor Weathering on the Geologic Phosphate Cycle, Woods Hole Oceanographic Institution, Department of Marine Chemistry and Geochemistry, Woods Hole (USA), 2023.

- Modelling the macromolecular and elemental composition of the ocean, Dalhousie University, Department of Oceanography, Halifax (CA), 2024.
- Modelling the macromolecular and elemental composition of the ocean, Ben Gurion University, Department of Earth and Environmental Sciences, Be'er Sheva (Israel), 2025.
- Biochemical remodeling of phytoplankton cell composition under climate change, CAO seminar, Institute of Earth Sciences, The Hebrew University, Jerusalem (Israel), 2025.
- Biochemical remodeling of phytoplankton cell composition under climate change., Civil and Environmental Engineering Department, Technion, Haifa (Israel), 2025.
- Biochemical remodeling of phytoplankton cell composition under climate change., Department of Earth and Planetary Sciences, Weizmann Institute of Technology, Rehovot (Israel), 2025.

## Other Academic Activities

- Reviewer for: *Science Advances, Nature Communications Earth & Environment, Progress in Oceanography, Nature Reviews Earth & Environment*.
- Co-organizer, Earth and Planetary Sciences Conference (EPScon), Weizmann Institute (2013, 2015, 2017).
- Co-initiator, PhD Chemistry Women Forum, Weizmann Institute (2015).
- Co-organizer, Seventh Workshop on Trait-based Approaches to Ocean Life, Carnegie Institution, Stanford University (2025).

## Social Impact / Service

- 2010: "Perah" Project – mentored children from underprivileged backgrounds.
- 2017: Mentored refugee children in mathematics.

## Teaching Experience

- 2015: Teaching Assistant, Carbon Cycle Course, Weizmann Institute of Science.
- 2016: Teaching Assistant, Biogeochemical Cycles Course, Weizmann Institute of Science.
- 2025: Invited Guest Lecturer, Modeling the Coevolution of Life and Biogeochemical Cycles, Haifa University.
- 2025: Invited Guest Lecture, Large-scale Models of Ocean Biogeochemistry, the Hebrew University.

## Oceanographic Campaigns

- June–July 2012: RV/KNORR 207–NA-VICE cruise, Ponta Delgada (Azores, Portugal) – Reykjavik (Iceland). Chief Scientist: Prof. Kay D. Bidle (Rutgers University).