

Eyal Wurgaft

Curriculum Vitae

PERSONAL DETAILS

Born: January 2nd, 1980
Married, +2
Address: 53 Yeffe Nof, Shoeva, Israel
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E-mail: wurgaft@openu.ac.il

CURRENT POSITIONS

Lecturer, The Department of Natural Sciences, The Open University of Israel

EDUCATION

Bachelor of Science, Biology and Environmental Sciences, April 2007
The Hebrew University of Jerusalem

Master of Science, Oceanography, May 2009, *Cum laude*

The Hebrew University of Jerusalem, Israel
Thesis: Biogeochemistry of dissolved oxygen in the Gulf of Eilat
Advisor: Prof. Boaz Luz

Doctor of Philosophy, Oceanography, July 2015

The Hebrew University of Jerusalem, Israel
Dissertation: The effects of physical processes on the distribution of stable isotopes of dissolved oxygen and precipitation of CaCO₃ in the Gulf of Aqaba
Advisors: Prof. Boaz Luz and Prof. Boaz Lazar

Post-doc Research, Oceanography, October 2014–October 2016

Ben-Gurion University of the Negev, Israel
Research topic: To co-cycling of sulfur and inorganic carbon in the sediments of the Eastern Mediterranean Continental Shelf.
Host: Prof. Orit Sivan

Post-doc Research, Oceanography, April 2017 – November 2019

Woods-Hole Oceanographic Institution, USA
Research topic: The Role and Mechanisms of Nuclei-induced Calcium Carbonate Precipitation in the Coastal Carbon Cycle: A First In-depth Study
Host: Dr. Zhaohui 'Aleck' Wang

AWARDS & FELLOWSHIPS

- ✦ **2008 - The Avner Etzion Award of Excellence in Oceanography Studies**, The Hebrew University
- ✦ **2009,2011 - The Rene & Henry Bester of Western Australia Student Aid Endowment Fund in the Discipline of Oceanography**, The Hebrew University of Jerusalem
- ✦ **2011,2013 - Outstanding student lecture**, The annual conference of the Israeli Association of Aquatic Studies
- ✦ **2011-2013 The Harry and Sylvia Hoffman Leadership and Responsibility Fellowship**, The Hebrew University of Jerusalem
- ✦ **2011-2014 The Levi Eshkol Fellowship**, The Ministry of Science and Technology, Israel
- ✦ **2012-2013 The Rieger Foundation**, Jewish National Fund Program for Environmental Studies
- ✦ **2014 Short-term Travel Grant**, The Ministry of Science and Technology, Israel
- ✦ **2014-2016 The Kreitman Postdoctoral Fellowship**, Ben-Gurion University in the Negev
- ✦ **2016 The Mary Sears Visitor Award**, Woods-Hole Oceanographic Institution
- ✦ **2016 NSF-BSF Research Grant**, Official PIs: Zhaohui 'Aleck' Wang, James Churchill, Tim Dellapena (USA), Boaz Lazar (Israel) (Initiated the proposal and took active part in its writing. Connected between the Israeli and US PIs)
- ✦ **2020-2024 ISF**, PI, The effects of heterogeneous interactions between seawater and suspended particles on total alkalinity and dissolved inorganic carbon in seawater

PUBLICATIONS

Wurgaft, E., O. Shamir, E. Barkan, N. Paldor and B. Luz. (2013) "Mixing processes in the deep water of the Gulf of Elat (Aqaba): Evidence from measurements and modeling of the triple isotopic composition of dissolved oxygen." *Limnology and Oceanography* 58.4: 1373-1386.

Wurgaft, E., O. Shamir, and A. Angert. (2013) "Technical note: The effect of vertical turbulent mixing on gross O₂ production assessments by the triple isotopic composition of dissolved O₂." *Biogeosciences* 10.8: 14239-14259.

Wurgaft, E., Z. Steiner, B.Luz and B.Lazar (2016) "Evidence for chemical precipitation of CaCO₃ on suspended solids in the open water of the Red-Sea" *Marine Chemistry* 186: 145-155.

Golan, R., Lazar, B., **Wurgaft, E.**, Lensky, N., Ganor, J., Gavrieli, I. (2017) "Continuous CO₂ escape from the hypersaline Dead Sea caused by aragonite precipitation" *Geochemica et Cosmochemica Acta* 207: 43-56.

Vigderovich, H., Liang, L., Herut, B., Wang, F., **Wurgaft, E.**, Rubin-Blum, M. and Sivan, O. (2019) Evidence for microbial iron reduction in the methanogenic sediments of the oligotrophic SE Mediterranean continental shelf. *Biogeosciences Discuss.* 2019, 1-25.

Churchill, J., Davis, K., **Wurgaft, E.** and Shaked, Y., (2019). Environmental Setting for Reef Building in the Red Sea, Coral Reefs of the Red Sea. Springer, pp. 11-32.

Wurgaft, E., Findlay, A.J., Vigderovich, H., Herut, B. and Sivan, O., (2019). Sulfate reduction rates in the sediments of the Mediterranean continental shelf inferred from combined dissolved inorganic carbon and total alkalinity profiles. *Marine Chemistry*, 211: 64-74.

Liang, H. et al., 2020. Low-molecular-weight organic acids as important factors impacting seawater acidification: A case study in the Jiaozhou Bay, China. *Science of The Total Environment*, 727: 138458.

Wurgaft, E. et al., 2021. Particle triggered reactions as an important mechanism of alkalinity and inorganic carbon removal in river plumes. *Geophysical Research Letters*: e2021GL093178.

ADVISING AND COMITEES

- ✧ **April 2020** – M.Sc committee, Ms. Hadas Barr, Ben Gurion University,

INVITED TALKS

- ✧ **March 2014** – The Interuniversity Institute for Marine Sciences in Eilat, Israel
- ✧ **November 2014** – The Marine Geosciences Dept., University of Haifa, Israel
- ✧ **May 2015** – The Geology and Environmental Sciences dept., Ben-Gurion University of the Negev, Israel
- ✧ **August 2015** - Gordon Research Seminar Conference, Chemical Oceanography
- ✧ **November 2015** – The Marine Chemistry and Geochemistry dept., Woods-Hole Oceanographic Institution, USA
- ✧ **June 2017** – The Israeli Open University, Raanana, Israel
- ✧ **August 2017** – The Marine Chemistry and Geochemistry dept., Woods-Hole Oceanographic Institution, USA
- ✧ **January 2018** – The School for Marine Science & Technology, University of Massachusetts, Dartmouth, USA

CONFRENCES

- ✧ **2011** – The Israeli Geological Society Annual Conference, Oral presentation
- ✧ **2011** – The Israeli Association for Aquatic Science Annual Conference, oral presentation, *Outstanding student lecture award*
- ✧ **2011** – Gordon Conference, Chemical Oceanography, poster
- ✧ **2013** – The Israeli Association for Aquatic Science Annual Conference, oral presentation, *Outstanding student lecture award*
- ✧ **2014** – Ocean Sciences Meeting, Hawaii USA, poster
- ✧ **2015** – The Israeli Association for Aquatic Science Annual Conference, oral presentation
- ✧ **2015** – Gordon Conference, Chemical Oceanography, poster
- ✧ **2016** – The Israeli Association for Aquatic Science Annual Conference, oral presentation
- ✧ **2017** – Gordon Conference, Chemical Oceanography, poster
- ✧ **2018** – Ocean Sciences Meeting, Oregon, USA, oral presentation
- ✧ **2018** – Goldschmidt Conference, Boston, USA, oral presentation

TEACHING

Teaching assistant, The Hebrew University of Jerusalem, Israel, 2007-2012

Courses:

- ✧ Introduction to Oceanography
- ✧ Physical Oceanography
- ✧ The Ocean in the Global System
- ✧ Paleo-climate and paleo-oceanography

Adjunct teacher, The Hebrew University of Jerusalem, Israel 2013-2017

Courses:

- ✧ The Ocean in the Global System

University List of Excellent teachers in 2013, 2014, 2015, 2016

CRUISE PARTICIPATION

- ✧ **2007-2013** – Seawater sampling in the Gulf of Aqaba, Israel **R/V Sam Rothberg**
- ✧ **2013** – GEOTRACERS cruise along the Mediterranean (Istanbul to Lisbon), dissolved oxygen isotopes sampling, **R/V Pelagia**
- ✧ **2014-2016** – Piston core sampling at the eastern Mediterranean, **R/V Shikmona**
- ✧ **2017 Chief Scientist** – Seawater sampling in the Gulf of Mexico, **R/V Pelican**

COMMUNITY SERVICE AND ACTIVITY

- ✧ **2011** – Conference co-organizer, **Water Bodies in the Dead Sea Rift: The Gulf of Aqaba and the Dead Sea, In Memory of Prof. Israel Zak**
- ✧ **2013** – Limnology and Oceanography, manuscript review
- ✧ **2015,2017,2019** – Geochemica and Cosmochemica Acta, manuscript review
- ✧ **2016,2019,2020** – Marine Chemistry, manuscript review
- ✧ **2018** – The National Science Foundation, USA, proposal review
- ✧ **2019** - Frontiers in Oceanography, review
- ✧ **2019** – Aquatic Geochemistry, review
- ✧ **2021** – Journal of Geophysical Research, review

OTHER SKILLS, ACTIVITIES AND QUALIFICATIONS

LANGUAGES

Fluent in Hebrew and English, Conversation level in Spanish

COMPUTERS

- ✧ **MS office utilities** - proficient
- ✧ **MATLAB programming** - proficient

- ✦ **LabView, Visual Basic, Java** – basic programming

COMMUNITY WORK

- ✦ Math tutoring and preparation for the matriculation exams for students from disadvantage population, and students with learning disabilities
- ✦ Scientific activities and demonstrations in local kindergartens
- ✦ Lectures about ocean dynamics and global changes in high-schools and public events