

CURRICULUM VITAE

Uri Ryb

URL for web site: <https://en.earth.huji.ac.il/people/uri-ryb>

EDUCATION

- 2015 PhD, Institute of Earth Sciences, Hebrew University of Jerusalem, Israel (advisors: Ari Matmon and Yigal Erel).
Thesis: The effects of climate and tectonic activity on denudation in carbonate terrains
- 2008 M.Sc., Institute of Earth Sciences, Hebrew University of Jerusalem, Israel (advisors: Alan Matthews and Yigal Erel). Magna cum laude
Thesis: Epigenetic mineralization phenomena along the Northern Negev anticlines and their associated geochemical anomalies
- 2004 B.Sc., Institute of Earth Sciences, Hebrew University of Jerusalem, Israel. Magna cum laude

CURRENT POSITION

- 2018 – present Senior lecturer (equivalent to tenure-track assistant professor) and group leader, head of the carbonate-characterization laboratory, Faculty of Sciences, Institute of Earth Sciences, The Hebrew University of Jerusalem, Jerusalem, Israel

PREVIOUS POSITIONS

- 2014 – 2018 Postdoctoral Scholar in Geochemistry, Division of Geological and Planetary Sciences, California Institute of Technology, CA, USA (host: John Eiler)

FELLOWSHIPS AND AWARDS

- 2014 – 2016 O.K. Earl Fellow, Division of Geological and Planetary Sciences, California Institute of Technology
- 2015 Bendor Award (Best PhD dissertation), Institute of Earth Sciences, Hebrew University of Jerusalem
- 2014 – 2015 Kreitman Fellow, Ben Gurion University of the Negev (declined)
- 2010 – 2014 Kaye-Einstein Fellow, Institute of Earth Sciences, Hebrew University of Jerusalem
- 2009 M.Sc., Graduated *Magna Cum Laude*, Institute of Earth Sciences, Hebrew University of Jerusalem
- 2007 Diker-Shraga Award for research students, Institute of Earth Sciences, Hebrew University of Jerusalem
- 2004 B.Sc., Graduated *Magna Cum Laude*, Institute of Earth Sciences, Hebrew University of Jerusalem

SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

- 2020 – 1 Postdoc/ 1 PhD Student/ 2 Master Students*
Institute of Earth Sciences, Hebrew University of Jerusalem, Israel
*Msc. Students are co-advised by collaborators at Ben-Gurion University of the Negev

TEACHING ACTIVITIES

- 2018 – Teaching “Basic geological mapping” (undergraduate), “MSc. Seminar” (graduate), and “Sedimentary Petrology” (advanced undergraduate and graduate) courses

2016 – 2017 Advisor - Summer Undergraduate Research Fellow, Caltech
2005 – 2013 Teaching assistant for “Rocks and minerals”, “Mineralogy and petrology”, “Summer Field Camp”, “Dead Sea Rift field-trip”, “Rock Tales: planet Earth and us”, “Introduction to Geology”, “Basic geological mapping”, “Geological mapping - extended” (undergraduate), “Geology and geophysics of the marine environment” and “GIS applications in Earth sciences” (senior undergraduate/graduate), Institute of Earth Sciences, Hebrew University of Jerusalem

ORGANISATION OF SCIENTIFIC MEETINGS

2020 Member of the steering committee: 8th International Clumped Isotope Workshop: Jerusalem Israel (150 participants)
2010 Member of the organizing committee: Israel Geological Society annual meeting (300 participants)

INSTITUTIONAL RESPONSIBILITIES

2020 - Coordinator of the Institute of Earth Sciences Seminar (HUJI, Israel)
2019 - Manager of the Institute of Earth Sciences website (HUJI, Israel)
2009 – 2014 Organizer of the “Geo-Tech” Seminar (HUJI, Israel)

COMMISSIONS OF TRUST

2014 Reviewer for: Nature Comm., Geology, GSA Bulletin, Tectonophysics, Geomorphology, Geochimica et Cosmochimica Acta, G-Cube, Quaternary Science Reviews, Comm. Earth & Environment, National Science Foundation (NSF), and Croatian Science Foundation

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

2014 – Member of AGU, GSA and EAG

FUNDING OBTAINED

2020 – 2024 Israel Science Foundation, Grant 1010/20 – “The oxygen isotope composition and temperature of the Precambrian Ocean”, **256150 Euro.**
2020 – 2024 Israel Science Foundation, New Faculty Equipment Grant 3045/20 – “Analytical systems for sample preparation and measurement of clumped isotope compositions in carbonate minerals”, **159240 Euro.**
2016 – 2018 National Science Foundation, Award EAR1624827 - “Burial, Uplift and Exhumation History of the Colorado Plateau” (author of proposal; official PI is John Eiler), **313200 Euro.**
2010 – 2014 Israel Science Foundation, Grant 50/10 “Linking structural evolution and landscape development across an arch-type rift margin: The Judea Hills and the Judea Desert, Central Israel” (author of proposal; official PI is Ari Matmon), **171000 Euro.**

MAJOR COLLABORATIONS

- John Eiler (Caltech), Max Lloyd (Pennsylvania State University) – The effect of mineral structure on solid-state isotopic reordering
- Woodward Fischer (Caltech), Aivo Lepland (Geological Survey of Norway), Robert Rainbird (Geological Survey of Canada) - The temperature and oxygen isotope composition of the Precambrian ocean
- Bradley Hacker, UC Santa Barbara (Dolomite U-Pb dating)

- Hagit Affek, Hebrew University (Clumped isotope analyses)
- Yigal Erel, Hebrew University (Dolomite Sr analyses)
- Camilo Ponton (Western Washington University), Christian France Lanord (CNRS Nancy), Liran Goren (BGU) – Carbonate clumped isotope constraints on sediment transport dynamics

Peer reviewed publications

- Ryb U.**, Lloyd K. M., and Eiler J. M., 2021: Carbonate clumped isotope constraints on the burial, uplift and exhumation histories of the Colorado Plateau. *Earth and Planetary Science Letters*, v. 566. p. 1-10.
- Chen S., **Ryb U.**, Piasecki A.M., Lloyd M. K., Baker M. B., Eiler J. M., 2019: Mechanism of solid-state clumped isotope reordering in carbonate minerals from aragonite heating experiments. *Geochimica et Cosmochimica Acta*, v. 258. p. 155-173.
- Ryb U.** and Eiler J. M., 2018: Oxygen isotope composition of the Phanerozoic ocean and a possible solution for the dolomite problem. *Proceedings of the National Academy of Sciences*, v. 115 p. 6602-6607.
- Lloyd M. K., **Ryb U.**, Eiler J. M., *in press*: Experimental calibration of clumped isotope reordering in dolomite. *Geochimica et Cosmochimica Acta*.
- Ryb U.**, Lloyd M. K., Stolper D. A., and Eiler J. M., 2017: The clumped-isotope geochemistry of exhumed marbles from Naxos, Greece. *Earth and Planetary Science Letters*, v. 470, p. 1-12.
- Levenson Y., **Ryb U.**, and Emmanuel S., 2017: Comparison of field and laboratory weathering rates in carbonate rocks from an Eastern Mediterranean drainage basin. *Earth and Planetary Science Letters*, v. 465, p. 176-183.
- Ryb U.**, Matmon A., Haviv I., and Benedetti L., 2015. Exhumation and uplift coupled with precipitation along the western Dead-Sea Rift margin. *Geology*, v. 43, p. 483-486.
- Placzek C., Granger D. E., Matmon A., Quade J., and **Ryb U.**, 2014. Geomorphic process rates in the central Atacama Desert, Chile: insights from cosmogenic nuclides and implications for the onset of hyperaridity. *American Journal of Science*, v. 314 (10), p. 1462-1512.
- Ryb U.**, Matmon A., Erel Y., Haviv I., Benedetti L., and Hidy A.J., 2014. Styles and rates of long-term denudation in carbonate terrains under a Mediterranean to hyper-arid climatic gradient: *Earth and Planetary Science Letters*, v. 406, p. 142-152.
- Ryb U.**, Matmon A., Erel Y., Haviv I., Katz A., Starinsky A., Angert A., and ASTER Team, 2014. Controls on denudation rates in tectonically stable Mediterranean carbonate terrain: *Geological Society of America Bulletin*, v. 126, p. 553-568.
- Ryb U.**, Matmon A., Porat N., Katz O., 2013. From mass-wasting to slope stabilization putting constrains on a tectonically induced transition in slope erosion mode: a case study in the Judea Hills, Israel: *Earth Surface Processes and Landforms* v. 38, 551-560.
- Ryb U.**, Erel Y., Matthews A., Avni Y., Gordon W. G., and Anbar D. A. 2009, Large molybdenum isotope variations trace subsurface fluid migration along the Dead Sea transform: *Geology*, v. 37, p. 463–466.

Selected conference presentations

- Ryb U.**, Lloyd M. K., and Eiler J. M. 2020, Carbonate clumped isotope constraints on burial, uplift and exhumation histories of the Colorado Plateau: AGU fall meeting, virtual, **Invited presentation**.
- Ryb U.**, Ponton C., Eiler J. M. France-Lanord C., Yoshida K. 2020, Clumped Isotope Compositions of Detrital Carbonates in the Himalayan River System – 2) The Cenozoic River, AGU Chapman meeting, DC.

- Ryb U.**, and Eiler J. M. 2017, Paleozoic-Mesozoic dolomitization of the Colorado Plateau by deep circulation of sea-water: Goldschmidt meeting, Paris.
- Ryb U.**, Lloyd M. K., and Eiler J. M. 2017, Dolomite clumped isotope constraints on the oxygen isotope composition of the Phanerozoic Sea: AGU fall meeting, New Orleans.
- Ryb U.**, Matmon A., Erel Y., Haviv I., and Benedetti L., 2016 Exhumation and uplift coupled with precipitation along the western margin of the Dead Sea Rift: GSA annual meeting, Denver.