

Noam Weisbrod - SHORT CURRICULUM VITAE

Professor (FULL), Zuckerberg Institute for Water Research (**ZIWR**), The Jacob Blaustein Institutes for Desert Research (**BIDR**), Ben-Gurion University of the Negev (**BGU**), Sede-Boqer Campus, 84990 Midreshet Ben-Gurion, ISRAEL; Phone: 972-(0)8-659-6903; Mobile: 972-(0)52 8795-756; Fax: 972-(0)8-659-6909; Email: weisbrod@bgu.ac.il; URL: www.bgu.ac.il/~weisbrod

• Major topic of interest

Contaminant hydrology; Soil evaporation and salinization; Nanoparticles and colloid-facilitated transport of contaminants; Fracture flow; Gas transport at the Earth-atmosphere interface; Impact of climate conditions on soil processes; Water problems in developing countries; Recharge and infiltration processes.

• Education

B.Sc. 1987-1990, The Hebrew University of Jerusalem (**HUJI**), Department of Soil and Water Sciences.

M.Sc. 1990-1993, HUJI, Department of Soil and Water Sciences. Awarded with distinction.

Ph.D. 1994-1999, HUJI, Department of Soil and Water Sciences.

Post-doctoral Fellow 1999-2001, Department of Bioengineering, OSU, USA.

• Professional Activities (partial list)

(a) Positions in academic administration (partial list)

2018 - : Director (Dean), The Jacob Blaustein Institutes for Desert Research

2015 – 2018: Director, Zuckerberg Institute for Water Research

2013 – 2015: Director, Blaustein Center for Scientific Cooperation

2009 – 2015: Head, Department of Environmental Hydrology & Microbiology, ZIWR, BIDR, BGU.

(b) Member of editorial board of scientific or professional journal

Associate Editor, *Vadose Zone Journal* (2006 - 2018); **Guest Editor**, *Transport in Porous Media* (2015, a special issue on Drying Porous Media)

(c) Membership in professional/scientific societies

1998 - present: American Geophysical Society; 1997 - present: Israeli Geological Society; 1997 - present: Israel Association for Water Resources; 1998 - present: Geological Society of America; 2006 - present: Soil Science Society of America

(d) Professional activities and consulting (partial list)

2019 - Member of review panel, Israel – China ISF.

2019 – Moderator: AABGU mid-winter meeting. A symposium desert and water research: making the desert bloom – Israeli style, Las Vegas, USA.

2018: Organizing committee, Workshop of the future of water sciences, Chicago, USA.

2017 - : Member WssTP. The European Water Cluster

2018: Consultant, SQM, Chile (mining company)

2017-18: Member of experts committee for hydro-fracking; Ministry of infrastructure

- 2015-18: Member of the Scientific Advisory Board, The Water Trust, NY, USA.
 2010, 2014, 2017: Member of the organizing committee of the second, third and fourth International Deserts, Dryland and Desertification Conference, Sede Boker, Israel.
 2017: Member of recruitment committee – Geological Survey, Israel
 2016-17: Member of review panel, BSF.
 2016: Member of the steering committee “BusinessH₂O – Water management best practices from USA and Israel” December, Las Vegas, Nevada, USA.
 2015-16: Member of the organizing committee for the 2016 Kirkham conference, Sede Boker, Israel.
 2015: Member of a review committee for the British Council proposals (Israel – UK cooperation).
 2014: Member in an international evaluation panel for the 2014 regional centers, Chilean National Commission for Science and Technological Research, Santiago, Chile (CONICYT).
 2014: Member of the Scientific Advisory Committee of the graduate student’s conference on water related issues (organized by the Grand Water Institute of the Technion).
 2014: Member of the organizing committee. The annual meeting of the Israeli Society for Water Resources, Sede Boker, Israel
 2014: Member of BGU delegation for Inner Mongolia to establish cooperation with ELION group.
 2014: Member of the housing committee, Albert Katz International School, BIDR
 2013-17: Member of the steering committee: BGU – University of Chicago cooperation in water sciences.
 2013: Member of the Israeli delegation for the UN convention and committees to combat desertification (UNCCD), Windhoek, Namibia.
 2013: A member of a BIDR research team funded by the Ecuadorian government to assess the feasibility of self-sustaining agricultural activity on the Galapagos Islands.
 2013: Member of the scientific advisory committee for WETSKILLS, Technion, Israel.
 2013: Member in a selection panel for the 2012 Research Team Projects Contest in Science and Technology with regional funding, CONICYT, Chile.
 2011: PhD assessment committee. Department of Agroecology Science and Technology, Aarhus University, Denmark.
 2010-16: Member, the Israel Association of Water Resources inspection committee.
 2009–11: Member, Review committee, R&D of reused wastewater, Ministry of Agriculture.
 2009–10: Member, Review committee for the Israel Science Foundation (Environ. and Earth sciences).
 2004: Consultant to UNAMA (through AgroProject). Project title: Water resources in the Registan Desert, Central Asia.

• Educational Activities

(a) Courses taught

1. 2003 – present, annually: *Introduction to Vadose Zone Hydrology*
2. 2003 – present, annually: *Field Methods in Hydrology*
3. 2008 – present, annually: *Rural Water Development*
4. 2009, 2011 – Short courses on soil and groundwater management (Peru; Australia)

(b) Research students: **Completed**: 34 M.Sc., 8 Ph.D., 4 post-doc. **Current**: 4 M.Sc., 3 Ph.D. 1 post-doc

• Awards, Prizes, Citations

(a) Selected Honors, Prizes, Citations, Awards (partial list, examples)

- 2007: Pasternak Prize for Achievements in Research. Ben-Gurion Heritage Foundation
 2012: Distinguished visiting professor fellowship, The Chinese Academy of Science

• Scientific Publications (H 31/24; Google/Scopus)

- (a) Chapters in books and peer-reviewed proceedings (**overall 22**; details are not shown)
- (b) Refereed articles in scientific journals (**overall 98**; mostly in Q1 journals, only selected are shown)

- **Lectures and Presentations at Meetings and Invited Seminars**

- (a) Presentation of papers at conferences/meetings (overall ~**210 conference presentations, including invited and key-note lectures** and over **49 invited seminars**; details are not shown).

- **Research Grants** (overall at BGU since 2002, 45 grants, including ISF X 4, BSF X 3, BARD X 2, GIF, USAID X 2, BMBF X 2, EU X 2, NSF, PAZI and more, overall more 9 million US\$, details are not shown)

Scientific Publications (a few examples from last 4 years, out of 98)

Zentner, E., Weisbrod, N., Gerstl, Z., Gasser, G., Ronen, D., 2015. Puddles - a trigger for heterogeneous chemical influx into the unsaturated zone. *Chemosphere*, 134, 217-223.

Weisbrod, N., Yechieli Y., Shandalov, S., Lansky N., 2016. On the viscosity of hyper saline solutions: the Dead Sea case study. *J. Hydrology* 532 (46-51). DOI:10.1016/j.jhydrol.2015.11.036

Ganot, Y., Holtzman, R., Weisbrod, N., Katz, Y., Kurtzman, D., 2017. Monitoring and modeling infiltration-recharge dynamics of managed aquifer recharge with desalinated seawater. *Hydrology and Earth System Science*, hess-2016-613.

Haquin, G., Yungrais, Z., Ilzyer, D., Zafir, H., Weisbrod, N., 2017. Detailed effects of particle size and surface area on ²²²Rn emanation of a phosphate rock. *Journal of Environmental Radioactivity*.

Levital, E., Dragila I. M., Kamai, T., Weisbrod, N., 2017. Free and forced gas convection in highly permeable, dry porous media. *Agricultural Forest and Meteorology*. DOI:org/10.1016/j.agrformet.2016.10.001

Cohen, M., Weisbrod, N., 2018. Transport of Iron nanoparticles through natural discrete fractures. *Water Research*, 129 (1-9). doi.org/10.1016/j.watres.2017.11.019

Nachshon, U., **Weisbrod, N.**, Katzir, R., Nasser, 2018. NaCl crust architecture and its impact on evaporation – three dimensional insights. *Geophysical Research Letters*, DOI: 10.1029/2018GL078363

Tran, E., Teutsch, N., Klein-BenDavid, O., Weisbrod, N., 2018. Uranium and Cesium sorption to bentonite colloids under carbonate-rich environments: Implications for radionuclide transport. *Science of the Total Environment*, 643, 260-269.

Cohen, M., Weisbrod, N., 2018. Field scale mobility and transport manipulation of carbon-supported nanoscale zero-valent iron (nZVI) in fractured media. *Environmental Science & Technology*.

Levital, E., Dragila, N., **Weisbrod, N.**, 2019: Impact of wind speed and soil permeability on aeration time in the upper vadose zone. *Agricultural and Forest Meteorology*.

Levital, E., Dragila, N., Kamai, T., **Weisbrod, N.**, 2019: Measurement of gas diffusion coefficient in highly permeable porous media. *Vadose Zone Hydrology*.

Friedlander, L., Weisbrod N., Garb, Y., 2019. Climatic and soil-mineralogical controls on the mobility of trace metal contamination released by informal electronic waste (e-waste) processing. *Chemosphere*.