

*Publications list - Noa Balaban*

After last ranking (July 2017)

- Peer reviewed journals:

1. Dangelmayr, M., Bussod, G.Y., Reimus, P.W., WoldeGabriel, G., Calvo, R., Harris, R., Stauffer, P.H., Klein Ben-David, O., **Balaban, N** and Rosenzweig, R. Uranium retardation capacity of lithologies from the Negev Desert, Israel – rock characterization and sorption experiments. 2022. *Minerals*, 12, 728.  
<http://doi.org/10.3390/min12060728>.
2. **Balaban, N.**, Gelman, F., Taylor, A.A., Walker, S.L., Bernstein, A., Ronen, Z. Degradation of brominated organic compounds (flame retardants) by a four-strain consortium isolated from contaminated groundwater. 2021. *Applied Science*, 11, 6263.  
<http://doi.org/10.3390/app11146263>.
3. **Balaban, N.**, Yankelzon I., Adar E., Gelman, F., Ronen, Z., Bernstein A. The spatial distribution of the microbial community in a contaminated aquitard below an industrial zone. 2019. *Water* 11(10): 2128. [doi:10.3390/w11102128](https://doi.org/10.3390/w11102128).
4. **Balaban, N.**, Laronne, J.B., Feinstein, S. Dynamics of metals bound to suspended sediments in floods and on channel bnks of the ephemeral Wadi Sekher, northern Negev, Israel. 2019. *Catena*, 172:243-254.

- Refereed papers in conference proceedings

1. Bussod G.Y., Rosenzweig R., Reimus P.W., Stauffer P.H., Dangelmayr M. A., Calvo R., Hayes N.J., Klein-BenDavid O., Dody A., **Balaban N.**, Harris R.J., Ware D., and Behar H.R. Subsurface radionuclide transport: Northeastern Negev Desert vadose zone model development. WM2019 conference, 3-7 March 2019, Phoenix, Arizona, USA, Number 19285.

- Conference abstracts

1. Klein-BenDavid, O., Freeze, G., Sassani, D., Calvo R., **Balaban, N.**, Peer, G. Borehole disposal of radioactive waste in Israel. EGU, Vienna, May 2022.
2. **Balaban, N.**, Rosenzweig R., Klein-BenDavid O., Bussod G., Stauffer P, Geochemical analysis of 2 shallow boreholes (20 m') to determine subsurface radionuclide transport model parameters. Israeli Geological Society conference, Yeruham, May 2021.
3. Klein-BenDavid, O., **Balaban N.**, Gelfer S., Komerian R., Saban D., and Rosenzweig R. Cs batch sorption and column transport experiments on sand from the Yamin plain, Israel: Experimental results and modeling. Israel geological society and EYAL conference, Judea Mountains, 2020.
4. Rosenzweig R., **Balaban N.**, Stauffer P, Klein-BenDavid O., Dody A., Calvo R., Kuluris S. and Bussod G. Water and vapor dynamics in the deep arid vadose zone of the Negev, Israel. Israel geological society and EYAL conference, Judea Mountains, 2020.
5. Bussod G.Y., Rosenzweig R., Reimus P.W., Stauffer P.H., Dangelmayr M. A., Calvo R., Hayes N.J., Klein-BenDavid O., Dody A., **Balaban N.**, Harris R.J., Ware D., and Behar H.R. Subsurface radionuclide transport: Northeastern Negev Desert vadose zone model development. WM2019 conference, 3-7 March 2019, Phoenix, Arizona, USA, Number 19285.
6. **Balaban, N.**, Dody, A. Erosion in Mishor Yamin – a major concern to near surface radioactive waste disposal facilities. Israel Nuclear Society. Herzelia. 2018.

- Participation in international workshops

1. Area V NNSA/IAEC collaboration meeting, November 2019, Midreshet Ben-Gurion, Israel.
2. Uranium Biogeochemistry – transformations, isotopes, and applications. Monte Verita Ascona, Switzerland. 2018.
3. Area V NNSA/IAEC collaboration meeting, December 2018, Los Alamos, NM, USA.

4. Collaboration workshop NRCN-GSI, November 2018, BGU, Beer Sheva, Israel.
5. Area V NNSA/IAEC collaboration meeting, November 2017, Midreshet Ben-Gurion, Israel.

- Invited lecture

1. Bacteria and radionuclides – a tool to rehabilitate contaminated sites. The Israeli association for radiation protection. Haifa, 2019

### Before last ranking (July 2017)

- Peer reviewed journals

1. **Balaban, N.**, Bernstein, A., Gelman, F., Ronen, Z. Microbial degradation of the brominated flame retardant TBNPA by groundwater bacteria: laboratory and field study. 2016. Chemosphere, 156: 367-373.
2. Kozell, A., Yechezkel, Y., **Balaban, N.**, Dror, I., Halicz, L., Ronen, Z., Gelman, F. Application of dual carbon-bromine isotope analysis for investigating abiotic transformations of tribromoneopentyl alcohol (TBNPA); 2015. Environ. Sci.Tech. 49(7), 4433-4440.
3. Alexandrov, Y., **Balaban, N.**, Bergman, N., Chocron, M., Krispil, S., Laronne, B.J., Powell, D.M., Reid, I., Wener-Frank, I. Suspended sediment transport in upland basins of the Besor Catchment, Northern Negev. 2008. Israeli Journal of Earth Science.

- Thesis

1. 2012-2016- PhD Thesis- Zukerberg Institute for Water Research, Blaustein Institutes for Desert Research (BIDR), Ben-Gurion University. Title: In situ degradation of brominated organic contaminants, DBNPG and TBNPA in groundwater.
2. 2004-2007 – MSc Thesis – Department of Geology and Environmental Studies Ben-Gurion University. Title: Adsorbed elements and svoc compounds in flood water and channel banks of Wadi Secher, draining the industrial Hovav Complex, Northern Negev Desert, Israel.

- Conference –oral presentations

1. **Balaban, N.**, Bernstein, A., Ronen, Z. can analysis of microbial populations in aquifers explain the persistence of organo-brominated compounds? 16<sup>th</sup> International Symposium on Microbial Ecology, Montreal, Canada, August 2016.
2. **Balaban, N.**, Bernstein, A., Ronen, Z. Detection of biodegradation of halogenated compounds by combining bio-molecular and isotopic tools. 10<sup>th</sup> International Society for Environmental Biotechnology conference. Barcelona, Spain. June 2016.
3. **Balaban, N.**, Bernstein, A., Ronen, Z. In-situ assessment of biodegradation of halogenated compounds in groundwater by combining isotopic and bio-molecular tool. 2016 EYAL annual congress. Hispin, Israel, March 2016.
4. **Balaban, N.**, Bernstein, A., Ronen, Z. Isotopic fractionation during biodegradation of brominated aliphatic flame retardants. 22<sup>nd</sup> ISEB Symposium 2015, Piran, Slovenia, September 2015.
5. **Balaban, N.**, Bernstein, A., Ronen, Z. Isotopic fractionation during biodegradation of brominated aliphatic flame retardants. Goldschmidt 2015, Prague, Czech, August 2015.
6. **Balaban, N.**, Bernstein, A., Ronen, Z. Isotopic fractionation during biodegradation of brominated aliphatic flame retardants. ISOTOPES 2015, Jerusalem, Israel, June 2015.
7. **Balaban, N.**, Bernstein, A., Ronen, Z. In situ degradation of brominated organic contaminants in groundwater. 2014 EYAL annual congress, Midreshet Ben-Gurion, Israel, April 2014.
8. **Balaban, N.**, Bernstein, A., Gelman, F., Ronen, Z. Assessing the biodegradation of brominated compounds in groundwater using isotopic fractionation tools. 2014 Israeli Geological Society annual conference, Dead Sea, Israel, February 2014.
9. **Balaban, N.**, Laronne, J.B., Feinstein, S. Adsorbed heavy metals in flood waters and channel banks of Wadi Secher draining the industrial

- Hovav complex, Northern Negev desert, Israel. 2013. KAMGI conference, Dead Sea, Israel, April 2013.
10. **Balaban, N.**, Menger, D. The ecological impact of ground solar stations. 2011 annual ecological society meeting, Megido, Israel, June 2011.
  11. **Balaban, N.**, Laronne, J.B., Menger, D. The ecological state of the Zeelim Delta in consideration of the Dead Sea retreat. 2008 Annual Geographical Society meeting, Bar-Ilan University, Ramat-Gan, Israel, December 2008.
  12. **Balaban, N.**, Laronne, J.B., Feinstein, S. Adsorbed heavy metals in flood waters and channel banks of Wadi Secher draining the industrial Hovav complex, Northern Negev desert, Israel. 2007 Annual Soil Science Agriculture Engineering meeting. Jacob Blaustein Institutes for Desert Research (BIDR), Ben-Gurion University Sde-Boker Campus, Midreshet Ben-Gurion, Israel, November 2007.
  13. **Balaban, N.**, Laronne, J.B., Feinstein, S. Adsorbed heavy metals in flood waters and channel banks of Wadi Secher draining the industrial Hovav complex, Northern Negev desert, Israel. 2007 Annual Geographical Society meeting. Ben-Gurion University Israel, November 2007.
  14. **Balaban, N.**, Laronne, J.B., Feinstein, S. Adsorbed heavy metals in flood waters and channel banks of Wadi Secher draining the industrial Hovav complex, Northern Negev desert, Israel. 2006 ASA-CSSA-SSSA Annual meetings, Sediment Pollution Symposium, Indianapolis, IN, USA, December 2006.
- Conference posters:
    1. **Balaban, N.**, Bernstein, A., Ronen, Z. Innovative tools for evaluating in situ degradation of brominated organic contaminants (DBNPG & TBNPA) in groundwater. 2013 FEMS annual congress, Leipzig Germany, July 2013.

2. **Balaban, N.**, Laronne, J.B., Feinstein, S. Adsorbed heavy metals and SVOCs in Wadi Secher channel banks and flood water draining the industrial Hovav complex, Northern Negev desert, Israel. Israel Water Association. Ben-Gurion University, Beer-Sheva, Israel. April 2006.
- Professional reports:
    1. National Gas Pipeline Rehabilitation Guidelines, August 2011. Submitted to Israel Natural Gas Lines LTD.
    2. Concentration and flux assesments of dissolved and adsorbed compounds in the flood waters and sediments of Wadi Secher, downstream to the industrial complex of Ramat Hovav. Scientific report, submitted to the industrial council Ramat-Hovav, Israel, 2007.
    3. Concentration and flux assesments of dissolved and adsorbed compounds in the flood waters and sediments of Wadi Secher, downstream to the industrial complex of Ramat Hovav. Scientific report, submitted to the industrial council Ramat-Hovav, Israel, 2006.