



Short Curriculum Vitae

Yaakov Anker

Environmental Research Coordinator

The Samaria and the Jordan Rift Regional R&D Center,

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Personal Details:

Date of birth 13 December 1969
Marital Status Married + 3
Nationality Israeli
Languages English, Hebrew, German, Arabic

Education:

1996 Hebrew University, Jerusalem, The Institute of Earth Sciences
B.Sc. in Physical Geography, Geology and Environmental Sciences.

2001 Hebrew University, Jerusalem, The Institute of Earth Sciences
M.Sc. in Geology.

2007 Tel Aviv University, Department of Geophysics and Planetary Sciences
Ph.D. (Geophysics).

Professional Positions:

1997 - 2000 Research assistant at the Israeli geological survey, Jerusalem

2000 - 2004 Supervisor of the thin section and mineral separation laboratory at the Institute of Earth Sciences, Hebrew University, Jerusalem

2001 - 2002 Research assistant at the Department of Geophysics and Planetary Sciences, Tel Aviv University

2006 - 2009 Post doctoral position as acting manager of the Hyper-Spectral Remote Sensing and GIS Laboratory, Department of Geography and Human Environment, Tel Aviv University

2009 – Present Environmental Research Coordinator at the Samaria and Jordan Rift regional R&D center (Applicative research institute of the Ariel University Center and the Israeli Ministry of Science and Technology)

Teaching Positions:

1997 – 1998	Assistant teacher at the Institute of Earth Sciences, Hebrew University, Jerusalem
1999 – 2000	High school teacher for Geology at the Rehavia High- school, Jerusalem
2005	Teacher at the “Laboratory course for third year students”, Department of Geophysics and Planetary Sciences, Tel Aviv University
2007	Substitute lecturer, Department of Geography and Human Environment, Tel Aviv University

Personal honors and Awards:

1997 – 2000	A three - year grant, The Israeli Ministry of Infrastructure
2002 – 2004	A three - year grant, The Israeli Water Commissionership
2003 – 2005	A Two - year grant, The BMBF Jordan Valley Project, Ph.D. student program
2006	Goldschmidt prize, The Israeli Organization for Water

International Conferences and Programs:

2003 – 2005	BMBF – MOST Ph.D. Students Program
2004	5 th International Symposium on Eastern Mediterranean Geology, Greece, http://www.geo.auth.gr/5thISEMG/
2007	International conference of water problems in the Mediterranean countries (ESS 2007), Cyprus http://library.neu.edu.tr/Neutez/6146638715Volume1.pdf
2008	Setting Sail Together, Young Professionals Program, Baltic Sea-Berlin, Germany http://www.auswaertiges-amt.de/EN/Infoservice/Presse/Meldungen/2008/080715-GemeinsamSegelSetzen.html
2011	AGU fall meeting, San Francisco, USA http://fallmeeting.agu.org/2011/
2012	2 nd international conference on Algal Biomass, Biofuels & Bioproducts, San Diego, USA http://www.algalbbb.com/index.html

Professional Affiliations:

Since 1997	The Israeli Geological Society
Since 1999	The Israeli Organization for Water
Since 2008	Reviewer for the Environmental Geology Journal
Since 2009	European Association of. Remote Sensing Laboratories (Organizing committee The 6 th EARSel SIG Workshop)
Since 2009	Reviewer for the Water Resources Management Journal
Since 2009	Reviewer for the Journal of Hydrology

Since 2009 Member of the Bertelsmann Foundation, German-Israeli professional network
Since 2011 The American Geophysical Union

Researches:

Israeli Ministry of Science and Technology, Regional R&D fund

2009 – 2012 Modeling of runoff transmission losses over mountainous karstic urban terrains
2010 – 2013 Integration of existing seismic data and hydrogeological findings in groundwater prospection

Israeli Ministry of Justice, The general guardian fund

2010 – 2011 Development of bee keeping and pasture for the west bank
2011 – 2012 Implantation of low impact practice to wastewater treatment in rural regions (west bank)

Israeli Ministry of Environmental Protection, Chief Scientist fund

2011 – 2012 Development of sustainable bio-filter for rehabilitation of deteriorated fluvial ecosystems
2012-2015 Development of growth scheme, device and methodology for microalgae utilization as raw material for biofuel production

JNF, Environmental projects fund

2011 – 2012 Development of sustainable low impact methodologies for wastewater reclamation

Samaria Water Cooperation LTD., Startup fund

2011 – 2012 Pilot for renewable energy production in industrial wastewater treatment facilities

Israeli Ministry of Agriculture and Rural Development, Chief Scientist fund

2011 – 2013 Evaluation of agriculture pastoral practices on groundwater recharge quality and quantity

National Coal Ash Board (NCAB)

2011-2014 Application of coal bottom ash in wastewater treatment bioreactors

Israeli Water Authority

2012-2013 Delineation of groundwater recharge geochemical cross section, by cave drip sampling and analysis

- 2012-2014 Application of initiative methodologies in upgrading of existing wastewater treatment facility to future quality standards and increasing inflow
- 2012-2014 Development of geoelectrical methodology for recognition of leaks in municipal sewage and water supply systems

Peer-Reviewed Publications:

Dissertations:

- Anker, Y., 2003, The evolution of the carbonate system in hyper – arid environments (Central Arava area, Israel), and its implication for ¹⁴C groundwater dating. M.Sc. Thesis, Hebrew University, GSI Report: GSI/19/03, 107 p.
- Anker, Y., 2007, Hydrogeochemistry of the Central Jordan Valley PhD Thesis, Tel Aviv University, 140 p.

Scientific Journals:

- Anker Y. , Flexer A., Rosenthal E. & Ganor E, 2006, Relationship between Jordan Rift Valley rains origin, and rainwater chemical composition. J. Geophys. Res., 112, D03306, doi:10.1029/2006JD007517 (IF5 3.4).
- Anker, Y., Rosenthal, E., Shulman, H. and Flexer, A., 2008, Multi disciplinary modeling, in stratigraphy and groundwater stratigraphy of the Jordan River basin, Environ Geol 59:275-283 (IF5 0.95)
- Anker, Y., Rosenthal, Schulman, H. and E Flexer, A., 2009, Geochemical evolution of runoff in a hyper-saline watershed (Lower Jordan Valley), Israel Journal of Earth Sciences, 59:41-61
- Anker, Y., Hershkovitz, Y., Gasith, A. and Ben Dor, E., 2012, Aerial digital photography appliance as spectral remote sensing technique for macrophytic cover assessment in small rural streams (Submitted to River Research and Applications)
- Anker, Y., Sass, E., Bein, A. and Yechieli, Y., 2012, Isotopic evolution of the carbonate system in rain, runoff and groundwater in hyper arid regions (Arava, Israel). (Submitted to Radiocarbon)

Reviewed book chapters:

- Anker, Y., 2012, Current status, qualities and quantities of wastewater effluents in Judea and Samaria. *In: The current environmental status of Judea and Samaria. Editors: Meir, I. and Levi, N., (in press, In Hebrew).*
- Anker, Y., Shulman, H., Guttman, J., Yellin-Dror, A. and Flexer, A., 2006, The potential use of new geological findings for water exploitation in the lower Jordan Valley. chapter 3.2.1. *in The water of the Jordan Valley. Editors: Hötzl, H., Möller, P., Rosenthal, H., The Water of the Jordan Valley, Springer Verlag, 181-198*
- Anker, Y., Flexer, A., Rosenthal, E., Yellin-Dror, A. and Shulman, H., 2011, The Groundwater Resources of the Jordan Rift Valley. The 20 Samaria Research Corpus, Ariel Academic Press, 351-360 (in Hebrew).
- Ben Dor, E., Anker, Y., Karnieli, A., Byet, M. and Mazor, E., 2009, 6th EARSel IS SIG Workshop, Field trips booklet. Tel Aviv University Pub. 20 p.

Dulgov, T., Anker, Y., Gimburg, A., Eshel, G. And Sheffer, N., 2012, Evaluation of soil preservation treatments on cave drip quality and quantity in the Sif cave. The 21 Samaria Research Corpus, Ariel Academic Press, (in press, in Hebrew).

Flexer, A., Anker, Y., Davidson, L., Rosenthal, E., Yellin-Dror, A. and Guttman, J., 2006, Groundwater salinization in the Jordan Valley – Quo Vadis. In: Water in the Middle East, Editores: Hambright, K. D., Ragep, F. J. and Ginat, J., University of Oklahoma Press: Norman, 100-110

Flexer, A., Guttman, Y., Shulman, H., Anker, Y., Yellin-Dror, A. and Davidson, L., 2007, The potential use of new geological findings for water exploitation in the Lower Jordan Valley. In: Shuval, H. and Dwik, H., *Editors: Hexagon Series on Human and Environmental Security and Peace, vol. 2: Title of the Book: Israel-Palestinian Water Issues – from Conflict to Cooperation.* Springer Pub. 427-432

Guttman, J., Anker, Y., Flexer, A. and Shulman, H., 2006, Hydrogeology and flow pattern along the “Fazael – Salt” cross-section. chapter 3.2.2. in *The water of the Jordan Valley. Editors: Heinz Hötzl, Möller, P., Rosenthal, H., The Water of the Jordan Valley, Springer Verlag, 189-217*

Proceedings of international conferences:

Anker, Y., Flexer, A., Rosenthal, A. and Yelin – Dror A., 2004, Arid – semiarid regions, rain and runoff geochemical composition, and the role of local runin saline component (Lower Jordan River Valley) , *5th International Symposium on Eastern Mediterranean Geology, Greece, 1479-1482*

Anker, Y., Zelikman, E., Ben Dor, E. and Mazor, E., 2009, Makthesh Ramon an international site for calibration of IS sensors Proceedings of the 6th EARSel workshop, 3078-3084

Ben Dor, E., Beyth, M., Karnieli, a., Mazor, E. and Anker, Y. 2009, 6th EARSel workshop, Field trips booklet. 14p

Flexer, A., Anker, Y., Shulman, H., Guttman, J. and Yellin – Dror, A., 2005, The morphology the subsurface anatomy and the fatal water-drop dilemma in the Jordan Rift Valley. In :BMBF-MOST, 2005, Proceedings of the “Water is Life” conference, Jerusalem,

Flexer, A., Guttman, J., Shulman, H. and Anker, Y., 2004, The Hydrogeology of the lower Jordan Valley – A Segment of the Dead Sea Rift. *5th International Symposium on Eastern Mediterranean Geology, Greece, 1498-1501*

Guttman, J., Anker, Y., Flexer, A., Yellin-Dror, A., 2009, Areas with preliminary potential for new water resources within the lower jordan rify valley. Proceedings of the EWRA conference/Cyprus,

Patents:

Anker, Y., & Katz, E. (2009). Activated multi-stage system for sewage treatment and reuse and also for bio-mass based, bio-fuel production. US 61/253,524

Anker, Y., & Katz, E. (2011). Aqueous waste treatment method and device US 61/438,079

Anker, Y. & Nocham, A., (2012), Aqueous waste treatment aerator US 61/577,097