



**Dr. Eng. Haim Cikurel**

### **1. Professional experience – Water, wastewater treatment and effluent reuse:**

**Dr. Eng. Haim Cikurel** is an experienced Chemical and Environmental Engineer. He has **46 (1972-2018)** years' experience in different fields of **research, production and engineering** in the **Chemical Process Industries and in water and wastewater treatment** including bio-augmentation techniques.

He is responsible for finding, managing and scientifically following different EU funded water, effluent treatment and reuse research pilot plants for MEKOROT National Water Company, AMIAD Water Systems and different SME's related to water treatment and reuse (HEFER, ROTEC, BMT, WADIS, ADIN HOLDING) as an independent consultant (in-house consultant in EU project funding terms) since 1996. Together with the Tel-Aviv University: Hospital (oncology department) wastewater treatment project based on hybrid MBR-AOP process (2014-2018). Teaching of the water and wastewater treatment course for BSc. and for MSc. International program, Hebrew University (2012-2017).

#### **Water and wastewater engineering research projects :**

**EU projects** that Dr. Cikurel was and is involved are:

1. **4<sup>th</sup> program:** **CATCHWATER - (1998-2001)**, "Enhancement of Integrated Water Management Strategies with Water Reuse at Catchment Scale"
2. **5<sup>th</sup> Program:** **AQUAREC (2003-2006)**, "Integrated concepts for reuse of upgraded wastewater".
3. **6<sup>th</sup> Program:** **RECLAIM (2005-2008)**, "Water reclamation technologies for safe Managed Aquifer Recharge"
4. **SWITCH (2005-2011)**, "Sustainable Water management Improves Tomorrow's Cities' Health)
5. **TECHNEAU (2006-2011)**, "Safe drinking water from source to tap"
6. **7<sup>th</sup>. Program:** **MINOTAURUS (2010-2013)**, (Microorganism and enzyme Immobilization: Novel Techniques and Approaches for Upgraded Remediation of Underground, wastewater and Soil)
7. **SAPH PANI (2011-2014)**, (Enhancement of natural water systems and treatment methods for safe and sustainable water supply in India)

8. **WATER4INDIA (2012 -2016)**, (Smart, Cost-effective Solutions for Water Treatment and Monitoring in Small Communities in India- Decision Support System Integration)
9. **DEMOWARE (2013-2016)**, (Innovation Demonstration for a Competitive and Innovative European Water Reuse Sector)
10. **Horizon 2020 -AquaNES (2016-2019)**. "Demonstrating synergies in combined natural and engineered processes for water treatment systems".

**German-Israeli cooperation (BMBF-MOST) projects:**

**(2006-2009)** Removal of micro-pollutants from municipal wastewater: A comparative study between conventional activated sludge (CAS) followed by ultra-filtration vs. membrane bio-reactor (MBR) treatment.

**(2010-2013)** Simultaneous reduction of manganese solubilization and improved micropollutant removal by ozonation and short Soil Aquifer Treatment (SAT) of Shafdan secondary effluents.

**Israel Ministry of Science (2014-2017)**, (Treatment of hospital wastewater using hybrid MBR-modified AOP technology: Pilot study) with the Tel-Aviv University.

He worked for 8 years (1976-1984) as a Water and Wastewater engineer in TEVA pharmaceutical industries (first water and wastewater engineer in Teva pharmaceuticals) and was their consultant afterwards (1995 – 2001). He was consultant for CHEMAGIS pharmaceutical industries for wastewater treatment (2000-2006) where he was the first engineer who introduced the MBR process to industrial wastes in Israel.

Dr. Cikurel was the consultant for the Ramat-Hovav industrial zone administration from 2003 to 2013.

He also specializes in drinking water and effluent filtration and disinfection (UV, ozone, chlorine and hydrogen peroxide).

He is in the management committee of the Specialists group on Disinfection, for the International Water Association (IWA) since 2006.

A member of the **WSSTP** - Water Supply Sanitation Technology Platform, initiated by the EU Commission advising on future "Managed Aquifer Treatment" to the commission

During (1996-2017) he has been in charge of different pilot plant projects for Mekorot in the Dan Region Wastewater Treatment Plant (The improvement of infiltration and Soil Aquifer Treatment –SAT) by effluent filtration; biofilm study in effluent and drinking water pipe-lines, tertiary treatment by contact filtration and UV disinfection of secondary effluents for agricultural reuse, and different membrane based processes for wastewater and effluent treatment (UF, NF, MBR), improved AOP (ozonation or ozone-H<sub>2</sub>O<sub>2</sub>) and SAT processes.

In the context of a German-Israeli BMBF-MOST research project (2010-2013) with Mekorot he was the scientific responsible for the operation of a bio-filtration- ozonation

pilot for pretreatment of secondary effluents before SAT infiltration for the removal of micropollutants and reduction of manganese dissolution. This project continued till 2016 as a DEMO project as part of the DEMOWARE EU project. In 2016 it developed as the **new AquaNES project to produce IPR (Indirect potable reuse) water.**

Together with the Tel-Aviv University: Hospital (oncology department) wastewater treatment project based on hybrid MBR-AOP process (2014 -2018)

Dr. Cikurel is also involved in two start-up companies (WOOSH WATER, Ecoeon hydrological).

1. WOOSHWATER - is developing a special drinking water system based on on-line ozone production from water and disinfection and micropollutant removal for public use instead of public fountains and saving bottled water use.
2. ECOAEON is developing a quadruple vortex and special ceramic balls system to supply oxygen rich water to the root-zone for several agricultural products. The system treats marginal water and secondary effluents to high quality water for irrigation and improve agricultural yield.

**In the municipal wastewater treatment and reuse field:** He has been responsible for different EU founded wastewater treatment research pilot plants for Mekorot National Water Company as an independent researcher since 1996 and has been active in submitting the proposals and operating the different pilot plants.

His main expertise that was acquired from these projects is **natural and hybrid membranal treatments of secondary effluents for unrestricted reuse and IPR.** He also specialized in effluent filtration during his Ph.D. and bio-treatment and modelling of inhibition of nitrification of pharmaceutical wastewater.

As a **Soil Aquifer Treatment (SAT)** expert he has visited Accra, Ghana twice to transfer technology on the SAT treatment and other natural treatments of municipal wastewater. In 2011 and 2012 he also visited the Mexico City University UNAM and CIMAV Chihuahua (Mexico) for special lectures on Soil Aquifer Treatment.

He was an invited speaker in the IWA International Disinfection conference in Mexico City (Dec. 2012).

He is co-author with other Mekorot and AQUAREC partners of a “Manual for Tertiary Treatment Processes“, which was published in (2006) by the EU Research Program, where he contributed to the chapters related to the technologies like: SAT, maturation ponds, filtration, disinfection (chlorine, UV, ozone and PAA), effluent distribution, agricultural reuse, monitoring.

He also wrote the SAT chapter in a book "Water Reclamation Technologies for Safe Managed Aquifer recharge", IWA publishing, (Eds. Kazner, Wintgens and Dillon (2012).

**Dr. Cikurel is actually teaching in the Hebrew University of Jerusalem the International Course for Water and Wastewater technologies for MsC. Students from different countries.**

## 2. Industrial wastewater treatment consultant ( different companies):

- a. **Teva pharmaceuticals**, on industrial wastewater treatment (1995 – 2001).
- b. Scientific advisor to the central WWTP in **Ramat Hovav Industrial Zone** in the South of Beersheva. (2003-2013)
- c. **Agis Pharmaceuticals**, on industrial wastewater treatment (2000 –2006)  
Dr. Cikurel introduced bio-membrane treatment of pharmaceutical wastes in Israel (2001).. **First MBR reactor** (Zenon) operated in Agis pharmaceuticals to treat pharmaceutical plant wastewater.
- d. Tritec 21, Electro-flocculation technologies (2002-2005).
- e. **Odix filtration**, (1998-2003), (2011- ).
- f. Elcode engineering, for wastewater treatment projects (2003-2006)
- g. ETS, Environmental technologies (2003 – 2006).
- h. Hefer, Systems and Control Ltd (2007-2013)
- i. Aviv, plastic bottles reuse factory wastewater treatment (2012-2013)
- j. Consulting services for industrial wastes problems for **Sise Cam Glass manufacturer** (Turkey) glass factory in Bulgaria during 2008 where special COD problems have been dealt with.
- k. Adin Holding, Team of experts, Senior advisor for wastewater treatment (see <http://www.adinholdings.com>) (2011 - )
- l. A member of a start-up company for on – demand cool and safe drinking water using washable bottles. **Wooshwater - ODIS** (2011- )
- m. A member of a start-up company for enhanced oxygen supply to root-zones in agriculture and fish ponds. (**ECOAEON** (2015- )

## 3. Teaching experience:

1. (1996-1999) Hebrew University Jerusalem, water and wastewater laboratory teaching assistant, Human Environmental Sciences, School of Applied Science and Technology, the **Hebrew University of Jerusalem** Givat Ram, Jerusalem
2. (1999-2004) – Teaching of water and wastewater technologies (Ha Michlala Ha Yamit, Michmoret technical college, Israel).
3. (2012 –2017) - Outside teaching member for water and wastewater treatment and reuse courses, **Hebrew University Faculty of Water and Soil (Rehovot, Israel).**
4. Participated since 1998 as **MSc. Adviser** and examiner in 6 different MSc. Thesis in wastewater technologies in the following Universities: Technion (1), Hebrew University (3) and Ben-Gurion University (2).
5. Participated in the **advising committee** for wastewater technology projects prepared by students in the context of **MED –REUNET** project (2003-2005) sponsored by the EU.
6. In 2006 he was accepted to the Management Committee of the IWA Specialist Group on Disinfection and he is since then a committee member.

7. In July 2009 he was invited to take part in the Technology Platform advising on future "Managed Aquifer Treatment" projects to the EU research organisation

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4. **Summary Professional experience:**

1. **8 years' experience (1976-1984)** as chemical engineer at Teva pharmaceuticals, in the management of wastewater treatment and solvent recovery projects.
2. **16 years' experience** in different chemical specialties and surface – active agents related industries (Kedem Chemicals, Izhar, Pazchem) as plant engineer and research member. (1972-1976), (1984-1988) and (1988 – 1996):
3. **21 years** as research project manager for Mekorot National Water Company, (1996 – 2017) for water reuse projects.

5. **Education:**

- Graduated from the French speaking high school **Saint Joseph**, Istanbul, Turkey
- Received his **BSc.** (1970) in Chemical Engineering from **Robert College**, American University, Istanbul, Turkey.
- Completed his **MSc. Studies** (1984) at the **Technion** Institute of Technology, Haifa, Israel.

His MSc. Thesis under the guidance of Prof. Menahem Rebhun was on:

***“Effects of Nitrofurantoin Production Wastewater, on Nitrification”***

- Received his **Ph.D.** from the Human Environmental Sciences, School of Applied Science and Technology, the **Hebrew University of Jerusalem** (2000).

The research thesis under the guidance of Prof. Avner Adin and Prof. Menahem Rebhun was on: ***“Particle Destabilization and Retention in Wastewater Effluent Filtration.”***

- He speaks English, French, Spanish, Hebrew and Turkish

6. **Personal:**

Web pages – LinkedIn, Research Gate, Facebook, Google Search (Haim Cikurel).

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**List of publications:**

1. **Cikurel H.**, Rebhun M., Adin A, (1994), “Comparison Between Alum and Alum-Polymer Combinations in Effluent Contact Filtration. ”, INTERFILTRA 94’.
2. **Cikurel H.**, Rebhun M., Amirtharajah A., Adin A., (1995), “Wastewater Effluent Reuse by In-line Flocculation Filtration Process”, the Second International Symposium on Wastewater Reclamation and Reuse, Books 1 & 2, pp. 391-400, Iraklio, Crete.
3. **Cikurel H.**, Rebhun M., Amirtharajah A., Adin A., (1996), “Wastewater Effluent Reuse by In-line Flocculation Filtration Process”. **Wat. Sci. Techn.** Vol. 33, No.10-11, pp. 203-211.

4. **Cikurel H.**, Rebhun M., Adin A., (1996),“Particle Destabilization and Retention by the Contact Flocculation-Filtration Process, of Secondary Effluents”. The “Sixth ISEEQS Conference, Jerusalem.
5. **Cikurel H.**, Rebhun M., Adin A., (1998),“Density and Strength of Deposits Formed During In-Line Flocculation Filtration of Secondary Effluents” in “Chemical Water and Wastewater Treatment” V. Hermann H. Hahn (Eds.), pp. 99-109.
6. **Cikurel H.**, Sack J., Sirak I., Icekson -Tal N., Blank R., Reich Y., (1998),“ The Improvement of Infiltration Rates of the Secondary Effluents from the Dan - Region Wastewater Treatment Plant”, Oral presentation, “Third International Symposium on Artificial Recharge of Groundwater - TISAR 98” Amsterdam.
7. **Cikurel H.**, Sirak I., Icekson -Tal N., Sack J., Adin A., (1999),“Study of Flocculant Effect on Shallow-Bed (Traveling Bridge) Contact Filtration for Effluent Reuse”. Wat. Sci. Techn. Vol. 40, No.4-5, pp. 91-98.
8. **Cikurel H.**, Adin A., Sack J., Icekson -Tal N., Asulin N., Reich Y., (1999),“ Study of a Pilot Scale Deep-Bed Pressure Filter for Effluent Reuse”, 7<sup>th</sup>. Intern. Conf., ISEEQS, Jerusalem.
9. Lazarova V., Levine B., Sack J., **Cikurel H.**, Cirelli G., Jeffrey P., Muntau H., Brissaud F., Salgot M., (July 2000), “Role of Water Reuse in Enhancement of Integrated Water Management in Europe and Mediterranean Countries”,. 3rd Int. Symposium on Wastewater Reclamation, Recycling and Reuse.. Paris.
10. **Cikurel H.**, Sack J., Icekson -Tal N., Danon, M., Harmant, P., Teltsch, B., Limoni, B. Zuckerman, U., Halpern, M. Broza, M., Cohen, Y., (2002), “Monitoring and Treatment of Biofouling in Effluent Carrying Pipe-Lines in Dan Region WWTP” Biofilm Monitoring Conference, Porto, Portugal.
11. Avraham O., Icekson-Tal N., Sack J., **Cikurel H.**,” Water Reuse in Israel The Dan Region Project: Evaluation of water quality and reliability of plant’s operation” accepted for Oral presentation at Regional Symposium on Water Recycling In Mediterranean Region. (Iraklio, Crete, Oct.2002).
12. Avraham O., Icekson-Tal N., Sack J., **Cikurel H.**, (2003),” Water Reuse in Israel The Dan Region Project: Evaluation of water quality and reliability of plant’s operation” Wat. Sci. Techn.-Water Supply Vol. 3, No.4, pp. 231-237.
13. Bixio D., de Heyder B., **Cikurel H.**, Muston M., Miska V., Joksimovic D., Schäfer A.I., Ravazzini A., Aharoni A., Savic D. and Thoeys C., (2004), “Municipal Wastewater reclamation: Where do we stand? An overview of treatment technology and management practice”, In: Proc. 4th IWA World Congress; 19-24 September 2004, Marrakech, Morocco.
14. Muston M., Bixio D., Karabelas A. J., de Heyder B., **Cikurel H.**, Aharoni A., Wintgens T., (2005), “Implementation and operation of municipal wastewater reuse plants - a perspective from water and wastewater utilities” DWR Journal 14/4, pp. 27 – 32.
15. Aharoni A., **Cikurel H.**, (2005), “Mekorot's Research Activity in Technological Improvements for the Production of Unrestricted Irrigation Quality Effluents” Accepted for publication in Desalination Journal
16. Kraitzer T., **Cikurel H.**, Tsadik N., Nasser A., Zukerman U., Meir A., Aharoni A., Adin A., (2005),“Particle Size Distribution and Filter Performance in Association with UV Disinfection of Wastewater Effluents”, Accepted for oral presentation IUVA 3<sup>rd</sup>International UV conference, British Columbia, Canada.
17. Kummel M., Aharoni A, **Cikurel H.**, (2005),” Struvite formation factors and prevention methods: Case studies from Israeli WWTPs”, IWA Specialist Conference (Nutrient Management in Wastewater Treatment Processes and Recycled Streams), Krakow –Poland.
18. Bixio D., de Heyder B., **Cikurel H.**, Muston M., Miska V., Joksimovic D., Schäfer A.I., Ravazzini A., Aharoni A., Savic D. and Thoeys C., (2005), “Municipal Wastewater reclamation: Where do we stand? An overview of treatment technology and management practice”, Wat. Sci. & Techn. Wat. Supply Vol 5 No 1, pp 77–85, IWA Publishing

19. Kraitzer T., **Cikurel H.**, Messalem R. and Brenner A., (2005), "Comparison of UV and chlorine disinfection of secondary and tertiary effluents", IUVA First Mid-East Conference on UV Technologies, 20-22 Nov. 2005.
20. Meir A., **Cikurel H.**, Kraitzer T., Tsadik N., Nasser A., Zukerman U., Aharoni A., Adin A., (2005), "Tertiary effluent quality effect on LP-UV disinfection and photoreactivation: Pilot plant case study", IUVA First Mid-East Conference on UV Technologies, 20-22 Nov. 2005.
21. **Cikurel H.**, Aharoni A, Adin A, (2005) "UV Disinfection for Wastewater Reuse", IUVA First Mid-East Conference on UV Technologies, 20-22 Nov. 2005.
22. Aharoni A, Meir A, Kraitzer T and **Cikurel H.** (2005), "Optimization and control of filtered and LP-UV disinfected effluents: Inactivation and photo-reactivation", accepted for presentation in the IWA Conference, Beijing, China in Sept. 2006.
23. M. Muston, D. Bixio, A. J. Karabelas, B. de Heyder, **H. Cikurel**, A. Aharoni and T. Wintgens (2005), "Aquarec project seeks best wastewater reuse practice", **The International Desalination & Water Reuse Quarterly**, February/March 2005, V.14/No 4, pp. 27-32.
24. Thoeve C., Bixio D., **Cikurel H.**, Muston M., De Koning J., Savic D., Jeffrey P. and Wintgens T., (2005), "Aquarec seeks for best management practices in water recycling and reuse", ARID Cluster Conference "Drought and water deficiency: from research to policy making", Limassol, Cyprus, Cyprus, 12 – 13 May 2005
25. Huertas E., Salgot M., Hollender J., Weber S., Dott W., Kahn S., Schäfer A., Messalem R., Bis B., Aharoni A., and **Cikurel H.** (2006), "Key objectives for water reuse concepts", ***Desalination Journal***, in print.
26. Bixio D., Thoeve C., Wintgens T., Hochstrat R., Melin T., **Cikurel H.**, Aharoni A., Durham B., (2006), "Wastewater reclamation and reuse in Europe and Israel: Status quo and future prospects" in print, **International Review for Environmental Strategies (*IRE*) Journal**
27. Nasser A.M., Paulman H., Sela O., Kraitzer T., **Cikurel H.**, Zukerman U., Meir A., Aharoni A., Tsadik N., Adin A., (2006), "UV Disinfection of Wastewater Effluents for Unrestricted Irrigation", ***Wat. Sci. & Techn.*** Vol 54 No 3, pp 83–88, IWA Publishing
28. D. Bixio, C. Thoeve, T. Wintgens, A. Ravazzini, V. Miska, M. Muston, **H. Cikurel**, D. Joksimovic, T. Melin (2007), "water reclamation and reuse: implementation and management issues" accepted to ***Desalination Journal*** for publication.
29. K. Le Corre, B de Heyder, C. Masciopinto, V. Tandoi, **H. Cikurel**, A. Aharoni, X. Zhao, S. Rinck-Pfeiffer, R. Regel, M. Salgot, M.N. Ayuso Gabella, N. Saperas, E. Cartmell, B. Jefferson, P. Jeffrey, (2007), "Preliminary results of managed aquifer recharge with reclaimed wastewater and storm-water in six operational case studies from around the world", IWA congress, Antwerp, 9-12 October 2007.
30. I. Gaus, **H. Cikurel**, G. Picot, A. Aharoni, Y. Guttman, M. Azaroual, W. Kloppmann (2007), "Soil aquifer treatment (SAT) of secondary effluents using a combination of UF and short term SAT at the Shafdan site (Israel): first results on water quality changes", IWA congress, Antwerp, 9-12 October 2007.
31. I. Gaus, **H. Cikurel**, G. Picot, A. Aharoni, Y. Guttman, M. Azaroual, W. Kloppmann (2007), "Alternative SAT treatment of secondary effluents using a combination of UF and short term SAT for increasing infiltration rates at the Shafdan site (Israel)" International Groundwater Recharge Conference **ISMAR 6**, Phoenix, Arizona, Oct. 28-Nov. 2
32. Hein A., Ernst M., Reemtsma T., **Cikurel H.**, Aharoni A., Jekel M., (2008) "Fate and behavior of selected trace organic pollutants in artificial ground recharge – Results from soil column tests and case study campaigns in Berlin and Tel Aviv", IWA World Congress and Exhibition, Vienna, 7-12 Sept. 2008.
33. Huertas E., Salgot M., Hollender J., Weber S., Dott W., Khan S., Schäfer A., Messale R., Bis B., Aharoni A. , **Chikurel H.**, (2008), "Key objectives for water reuse concepts", **Desalination** - 218 pp. 120–131.

34. Kloppmann W., **Cikurel H.**, Picot G., Pettenati M., Guttman Y., Aharoni A., Guerrot, C., Millot R., Gaus I., Wintgens T., (2009), "B and Li isotopes as intrinsic tracers for injection tests in aquifer storage and recovery systems", Applied Geochemistry (in preparation)
35. Aharoni A., Guttman Y., Tal N., Kreitzer T. and **Cikurel H.**, (2010), "SWITCH project Tel-Aviv Demo City, Mekorot's case: Hybrid natural and membranal processes to up-grade effluent quality", *Rev. Environ. Sci. Bio/technol.* ISSN 1569-1705, Vol. 9, Nb. 3, pp. 193-199.
36. **Cikurel H.**, Sharma S.K., Jekel M., Kazner C., Wintgens T., Amy G., Ernst M., Guttman Y., Tal N., Kreitzer T., Putschew A., Vairavamoorthy K., and Aharoni A., (2010), "Alternative hybrid SAT-membrane treatments: Short SAT-NF treatment to upgrade effluent quality", *IWA MTWR 2010*, Regional Membrane conference, Oct 18-22, Istanbul Turkey.
37. E. Sahar, R. Messalem, **H. Cikurel**, A. Aharoni, A. Brenner, M. Godehardt, M. Jekel, M. Ernst (2011), " Fate of antibiotics in Activated Sludge followed by ultrafiltration (CAS-UF) and in membrane bioreactor (MBR)" **Water Research**, V. 45, pp. 4827 - 4836.
38. E. Sahar, M. Ernst, M. Godehardt, A. Hein, J. Herr, C. Kazner, T. Melin, **H. Cikurel**, A. Aharoni, R. Messalem, A. Brenner and M. Jekel (2011), " Comparison of two treatments for the removal of selected organic micropollutants and bulk organic matter: conventional activated sludge followed by ultrafiltration versus membrane bioreactor", *WST*, 63.4, pp. 733-740.
39. E. Sahar, I. David, Y. Gelman, R. **H. Cikurel**, A. Aharoni, R. Messalem, , A. Brenner, (2011), " The use of RO to remove emerging micropollutants following CAS/UF or MBR treatment of municipal wastewater", *Desalination* 273, pp.142-147
40. E. Sahar, M. Ernst , M. Godehardt , R. Messalem,, **H. Cikurel**, A. Aharoni, A. Brenner, , M. Jekel, (2011), "Comparison of Two Treatments for the Removal of Organic Micro-Pollutants: Conventional Activated Sludge (CAS) Followed by Ultrafiltration (UF) vs. Membrane Bioreactor (MBR)", nato security through science series C: Environmental security. Chapter in book: Advanced Water Supply and Wastewater Treatment: A Road to Safer Society and Environment, 106: pp.147-161
41. Goren O, Gavrieli I, Burg A, Negev I, Guttman J, Kraitzer T, **Cikurel H**, Kloppmann W, Guerrot C & Pettenati M (2011) " Redox Conditions in Infiltration Basins of a Large Scale Soil Aquifer Treatment (SAT) of Effluent", *Mineralogical Magazine*, 75(3) 938
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<http://dx.doi.org/10.1016/j.watres.2015.07.034>
43. Zucker I, Mamane H., **Cikurel H.**, Jekel M., Huebner U., Avisar D., (2015)," A Hybrid Process of Ozonation and Short Soil Aquifer Treatment for Water Reuse", Ozone and Advanced Oxidation Leading Edge Science and Technology Conference, 28 June-3 July 2015, Barcelona.
44. T. Gross, L. Breitenmoser, C. Hugi, B. Aumeier, A. Bello-Dambatta, E. Cadena, **H. Cikurel**, P. Cruddas, S. Sadr, Y. Sheva, C. Kazner, (2015), "Development and application of a DPSIR-based framework to assess water challenges in Indian communities". Water and Development Congress, Jordan, (18-22 October (WDCE2015)
45. **Cikurel H.**, Gelman E., Zucker I., Avisar D., Mamane H., Lakretz **A.**, (2016), " The role of Soil Aquifer treatment (SAT) for effective removal of organic matter, micropollutants and micro-organisms from ozonated secondary effluents", IOA Congress , Swansea, UK.
46. Lakretz A., Mamane H., **Cikurel H.**, Avisar D., Gelman E., Zucker I, (2017), " The Role of Soil Aquifer treatment (SAT) for Effective Removal of Organic Matter, Trace Organic Compounds and Microorganisms from Secondary Effluents Pre-treated by Ozone", submitted to: *Ozone Science and Engineering Journal*.

## **BOOKS**

1. Co-author with other Mekorot and AQUAREC partners of a “Manual for Tertiary Treatment Processes“ that was published in **(2006)** by the EU Research Program, Contribution to the chapters related to the technologies like: SAT, maturation ponds, filtration, disinfection (chlorine, UV, ozone and PAA), effluent distribution, agricultural reuse, monitoring.
2. Author for SAT chapter in (2012) in the context of the EU-RECLAIM project: IWA publishing, **(2012)**, "Water Reclamation Technologies for Safe Managed Aquifer recharge", Eds. Kazner, Wintgens and Dillon.