

CV [Eyal Kurzbaum]

Date: 7.10.2021

A. Personal Details

- Full name: **Eyal Kurzbaum**
- Date of birth (month/year) 7/1977
- Country of birth: Israel
- Date of immigration to Israel
- Citizenship : Israeli
- ID (or passport) number 033904186
- Family status: Married +3
- Full home address: Degania Alef, ZIP code 15120
- Home: 046608055, 0523749111
- Work: Shamir research institute and Tel-Hai Academic College
- E-mail address: eyalku@telhai.ac.il

B. Higher Education

Undergraduate and Graduate Studies

Period of Study (month/year – month/year)	Name of Institution and Department	Degree
2001-2004	Tel-Hai Academic College, Israel. Faculty of Sciences and Technology, Biotechnology and Environmental sciences	B.Sc.
2004-2007	Tel Aviv University, Israel. Faculty of Life sciences, Department of Plant sciences, Ecology and environmental quality sciences. Supervisors: Dr. Werner Eckert and Prof. Sven Beer	M.Sc.
2007-2011	Technion-Israel Institute of Technology, Israel. Faculty of Civil & Environmental Engineering, Division of Environmental, Water & Agricultural Engineering. Supervisor: Prof. Robert Armon	PhD

Post-Doctoral Studies

Period of Study (month/year – month/year)	Name of Institution and Department/Lab	Name of Host
2011-2013	Israel Oceanographic & Limnological Research, The Yigal Allon Kinneret Limnological Laboratory, Israel.	Dr. Werner Eckert

C. Academic Appointments and Academic Administrative Positions in Institutions of Higher Education

Academic Appointments

Period (month/year – month/year)	Name of Institution and Department	Rank/Position Specify if full or percent part time
2013-2017	Researcher	Shamir research institute
7.2018-now	Senior Lecturer	University of Haifa, Geography and Environmental Studies
*8.2018-now	Senior Researcher	Shamir research institute
*8.2021- now	Senior Lecturer	Tel-Hai Academic College

Offices in Academic Administration

Years	Name of Institution and Department	Role
2011-2013	Head of department	Water Technologies Dep., Practical Engineering, Ohalo academic college.
2013-2015	Head of program	Water Sciences Center, Youth Academic Center. Kinneret Academic College.

D. Teaching

Courses Taught in Recent Years

Years	Name of Course	Level BA/BSc/MA/MSc / PhD/ etc
2011-2014	"Microbiology (laboratory)", The Kinneret Academic College.	BSc
2011-2014	"Water chemistry/water quality", Ohalo Academic College & Kinneret Academic College	Practical Engineering
2012-2013	"Biostatistics", Ohalo Academic College	BA
2012-2014	"Water & Wastewater", Ohalo Academic College	BA
2012-2017	"Wastewater treatment and reuse" Ohalo & Kinneret Academic College	Practical Engineering

Years	Name of Course	Level BA/BSc/MA/MSc / PhD/ etc
2012-2017	"Drinking water treatment and quality", Ohalo Academic College & Kinneret Academic College	Practical Engineering
2014-now	"Ecotoxicology", Tel-Hai Academic College	BSc
2017-now	"Environmental microbiology", Tel-Hai Academic College	BSc
*2018-now	"Chapters in environmental pollution and purification", University Of Haifa	BA
*2019-now	"Technologies for urban water supply", Tel-Hai Academic College	MSc
2021-now	"Advanced seminar in water sciences", Tel-Hai Academic College	MSc

E. Supervision of Graduate Students

Name of Student	co-supervisor	Title of Thesis	Degree and institution	Year of Completion / in Progress	Student's Achievements
Master's Students					
Yaara Bar Oz	Prof. Hadas Mamane	Remediation of olive mill waste water: a combined process of physico-chemical and encapsulated biomass	MSc Tel Aviv University	2016-2018	one paper
*Yuval Shelly		Nitrogen compounds removal using immobilized biomass	MSc Tel-Hai Academic College	2018-2020	one paper, another one under review
*Neta Bar Niv	Prof. Hassan Azaizeh	Micropollutants degradation using AOP and biological processes	MSc Tel-Hai Academic College	2019-2021	Two papers in preparation
*Eyal Haim		Antimicrobial compounds from microalgae	MSc Tel-Hai Academic College	In Progress, to be finished during 2022	
Ph.D. Students					
*Ben Shahar	Prof. Nativ Dudai	Antimicrobial compounds against	PhD The Hebrew	In Progress, to be finished during 2024	Two papers in preparation

Name of Student	co-supervisor	Title of Thesis	Degree and institution	Year of Completion / in Progress	Student's Achievements
		phytopathogens from microalgae	University of Jerusalem		
Post-Doctoral Fellows					
Rupak Kumar		Extracellular laccase production and phenolic compounds degradation by an olive oil mill wastewater isolate	PhD Shamir research institute	2017	one paper, another one in preparation
* Sara Azerrad		AOP and biological processes for micropollutants removal from wastewater	PhD Shamir research institute	2021	two papers, another three in preparation

F. Research Grants In chronological order (from old to new)

Years	Role in Research (PI, Co-PI, CI)	Other Researchers (Name & Role)	subject of research	Funded by	grant sum (my part)	Relevant Publications
2013	PI	None	Water disinfection using electromagnetic field	Hydroflow, USA	20,000 NIS	
2014	PI	Pinhas fine Co-PI	Phosphorus removal from wastewater	Katzir Keshet, Israel	40,000 NIS	14, 17, 23
2014	PI	Guy Rubinstein Co-PI	Phosphorus removal from fish pond water	C=Ministry of Agriculture and Rural Development, Israel	2500 NIS	14, 17, 23
2015	PI	Guy Rubinstein Co-PI	Phosphorus removal from fish pond water	C=Ministry of Agriculture and Rural Development, Israel	30,000 NIS	14, 17, 23
2015	Co-PI and coordinator	Ofir Menashe PI, Peleg Eistrhan Co-PI,	New technology for Hormones reduction from wastewaters	V=Ministry of Science, Technology and Space	981,000 NIS (275,000 NIS)	30, 31

Years	Role in Research (PI, Co-PI, CI)	Other Researchers (Name & Role)	subject of research	Funded by	grant sum (my part)	Relevant Publications
2016	PI	Guy Rubinshtain Co-PI, Oded Bar Shalom Co-PI	Phosphorus removal from fish pond water	C=Ministry of Agriculture and Rural Development, Israel	18,000 NIS	14, 17, 23
2016	Co-PI	Pinhas Fine Co-PI, Oded Bar Shalom PI	Phosphorus removal from wastewater	V=Ministry of Science, Technology and Space	250,000 NIS	14, 17, 23
2016	PI	Ofir Menashe Co-PI, Robert Armon Co-PI	New Biofilter for Phosphorus and nitrogen removal in dairy wastewater	V=Ministry of Science, Technology and Space	250,000 NIS	33
2017	Co-PI	Pinhas Fine Co-PI, Oded Bar Shalom PI	Phosphorus removal from effluents using Phoslock	V=Ministry of Science, Technology and Space	250,000 NIS	17, 23
*2018	PI	Natan Rothshild Co-PI, Esther Sarrusi Co-PI	CO ₂ bio-mitigation	C=Shamir – Ohalo research fund	20,000 NIS	29
*2018	Co-PI	Anders Johansen PI, Robert Armon Co-PI, Zhaojun Li Co-PI	Sol-gel technology for precise measurement of soil bacterial fungal interactions at warm and cold climates and with relevance	C=Danish International Network Program	120,000 NIS	28
*2019	PI	Hadas Mamane Co-PI, Dror Avisar Co-PI, Ofir Menashe Co-PI	Oxidative Bio-Reactor (OBR): Single-step biological and chemical oxidation for efficient degradation of micropollutants and non-biodegradable organics in effluents	V=Ministry of Science, Technology and Space	300,000 NIS (290,000)	32, 34
*2019	Co-PI	Sara Azerrad	Nanotechnology for wastewater treatment: Nanocomposite materials coupled with enzymatic and advanced oxidation processes for removal of micropollutants	V=Ministry of Science, Technology and Space	300,000 NIS	35
*2020	PI	Nativ Dudai Co-PI, David Ezra Co-PI	Characterization and application of antimicrobial compounds in	C= Ministry of Agriculture and Rural Development	900,000 NIS (510,000)	

Years	Role in Research (PI, Co-PI, CI)	Other Researchers (Name & Role)	subject of research	Funded by	grant sum (my part)	Relevant Publications
			microalgae against phytopathogens			
*2020	PI	Nathan Rothschild	Characterization and application of antimicrobial compounds in olive mill waste water against bacteria	C= Ohalo-Shamir research fund	15,000 NIS	
*2020	PI	Yoram Gershman	Characterization and application of antimicrobial compounds in algae against pathogenic bacteria	C= University of Haifa environmental sciences project	20,000 NIS (10,000)	
*2021	PI	None	A new biotechnological approach for nitrate and ammonium removal from wastewater using membrane-based bacterial encapsulation	V= German-Israeli Foundation for Scientific Research and Development (GIF)	(100,000) NIS	

Awards and Fellowships

Year	Name of Award	Purpose of Award or Achievement	Grantor of award/fellowship
2005-2006	The Admiral Yohai Ben-Nun Foundation for Marine and Freshwater Sciences	competitive graduate student fellowship	Israel Oceanographic & Limnological Research (IOLR)
2006	Mana-Adesman Travel Award	for active participation in an international conference (USA),.	Tel Aviv University, Israel
2008	The Rieger Foundation-Jewish National Fund Program for Environmental Studies		The Rieger Foundation-Jewish National Fund, California
2008	Henrietta & Thelma Zackin award	for excellent PhD students	The Grand Water Research Institute, Technion, Israel.
2009	The Rieger Foundation-Jewish National Fund Program for Environmental Studies, California		The Rieger Foundation-Jewish National Fund, California
2010	Outstanding presentation contest award	Outstanding presentation	Israeli water association conference, Israel.
2010	Travel Award	For active participation in an international conference (Portugal).	Israel Society for Microbiology (ISM)
2013	Distinguished Lecturer	Distinguished Lecturer	The Kinneret Academic College
*2019	Distinguished Lecturer	Distinguished Lecturer	Tel-Hai Academic College

G. Active Participation in Conferences

a. Participation in International Conferences - Held Abroad

Date (month/year)	Name of Conference	Place of Conference (city & country)	Subject of Lecture/Discussion	Role
July 2006	60th Annual Meeting, Phycological Society of America (PSA)	Juneau, Alaska, USA	The relationships between delayed and prompt fluorescence in monitoring photosynthetic traits of phytoplankton.	Poster
April 2010	The Water Research Conference	Lisbon, Portugal	Phenol utilization rate of root-attached, gravel-attached, and planktonic <i>Pseudomonas pseudoalcaligenes</i> isolated from a constructed wetland system.	Poster
September 2016	Bioreactor performance of the European Society on Biochemical Engineering Science	Bol, Croatia	Microbial culture encapsulation for phenols biodegradation.	Talk
September 2016	Working group on bioreactor performance of the European Society on Biochemical Engineering Science,	Bol, Croatia	The potential of culture encapsulation in a 3D microfiltration membrane capsules (SBP) for biodegradation.	Poster
October 2017	S2small (International IWA Conference on Sustainable Solutions for Small Water and Wastewater Treatment Systems),	Nantes, France	Phenol biodegradation by bacterial cultures encapsulated in 3D microfiltration-membrane capsules for industrial wastewater treatment.	Talk
*June 2018	7th European Bioremediation Conference and the 11th International Society for Environmental Biotechnology conference	Chania, Greece	A permeable macro-encapsulation of <i>P. putida</i> achieves effective biodegradation in batch/continuous bioreactor	Talk
*October 2019	11th Micropol & Ecohazard Conference 2019	Seoul, South Korea	Biodegradation of the hormone 17 α -ethynyestradiol (EE2) by bacterial cultures encapsulated in 3D microfiltration-membrane capsules	Talk
*Aug 2021	The 4th International Conference on Applied Biochemistry and Biotechnology (ABB 2021)	Bohai University, China (Online)	Biodegradation of hormones in effluents by bacterial cultures encapsulated in 3D hollow capsules	Poster

b. Participation in International Conferences - Held in Israel

Date (month/ year)	Name of Conference	Place of Conference (city)	Subject of Lecture/Discussion	Role
May 2006	Kinneret researches conference	Emek Hayarden,	The Delayed fluorescence and the prompt fluorescence in Phytoplankton and the relationships between them (Heb.)	Talk
May 2006	The Third Annual Meeting of the Israeli Association for Aquatic Studies	University of Haifa,	The relationships between delayed and prompt fluorescence in monitoring photosynthetic traits of phytoplankton.	Poster
November 2008	The 15th Workshop of the International Association of Phytoplankton Taxonomy and Ecology (IAP)	Ramot,	The relationships between delayed and prompt fluorescence in monitoring photosynthetic traits of phytoplankton.	Poster
March 2009	Annual Meeting of the Israel Society for Microbiology (ISM)	Bar Ilan University	A halotolerant <i>Streptomyces</i> sp., isolated from rhizosphere of a constructed wetland, biodegrades agar, agarose, chitin, polypectate, gellan gum, and phenol.	Poster
May 2009	37 th Annual Meeting of the Israeli Society of Ecology and Environmental Sciences	Weizmann Institute of Science	A halotolerant <i>Streptomyces</i> sp., isolated from rhizosphere of a constructed wetland, biodegrades agar, agarose, chitin, polypectate, gellan gum, and phenol.	Poster
February 2010;	Annual Meeting of the Israel Society for Microbiology (ISM),	Bar Ilan University	The fate of phenol in a constructed wetland mesocosm: microbiology, abiotic and plant uptake processes. (Heb.)	Talk
March 2010	Annual Meeting of the Israeli water association,	Kfar Maccabiah	The specific contribution of plants, microbial activity, and porous bed to phenol removal in constructed wetlands.	Poster
June 2010	38 th Annual Meeting of the Israeli Society of Ecology and Environmental Sciences	Ben-Gurion University	What is the environmental fate of phenol in constructed wetland systems and where do most bacteria present: on the plant roots, on the gravel or in the water (planktonic)?	Poster
June 2012	The 9th Annual Meeting of the Israeli Association for Aquatic Sciences	Kinneret Academic College	Fluorescence and primary productivity.	Poster
October 2012	12th BMBF-MOST Seminar	Haifa	Development and implementation of a novel delayed- fluorescence based in situ profiler for primary production in aquatic systems.	Talk
November 2012	Kinneret researches conference,	ILOR, Haifa	The use of delayed- fluorescence as a monitoring tool for phytoplankton activity in aquatic systems. (Heb.)	Talk
April 2014	Annual Meeting of the Israel Society for Microbiology (ISM)	Haifa	Small-bioreactor platform technology in the wastewater treatment process.	Poster
April 2014	Annual Meeting of the Israeli water association	Kfar Maccabiah	Small-Bioreactor Platform Technology as a Municipal Wastewater Additive Treatment.	Poster
February 2015	Annual Meeting of the Israel Society for Microbiology (ISM),	Bar Ilan University	The potential of autochthonous microbial culture encapsulation in a confine environment for phenols biodegradation.	Poster
February 2016	Annual Meeting of the Israel Society for Microbiology (ISM),	Bar Ilan University	Performance comparison of plant root biofilm, gravel attached biofilm and planktonic microbial populations, in phenol	Poster

Date (month/ year)	Name of Conference	Place of Conference (city)	Subject of Lecture/Discussion	Role
			removal within a constructed wetland wastewater treatment system.	
February 2016	The 21st International Symposium Aquaculture In Israel	Nir Etzion	Phosphorus removal from fish pond water. (Heb.)	Invited Lecturer
March 2016	The 21st Israel Association of Water Resources conference (E.Y.A.L)	Haspin	Phosphorus removal from dairy, fish pond and effluents using adsorption for sustainable agriculture.	Talk
May 2016	Aquaculture research meeting	Ministry of Agriculture and Rural Development	Phosphorus removal from fish pond water for sustainable aquaculture. (Heb.)	Invited Lecturer
Oct 2016	Multidisciplinary scientific conference: Agriculture and Environment in the Golan Heights and Mount Hermon - innovations in research	Ohalo Academic College	Phosphorus removal from dairy, fish pond and effluents in the Golan using adsorption and sedimentation.	Talk
February 2017	Day of fishery research lectures	Fishery department, The Ministry of Agriculture, Gilboa	Phosphorus removal from fish pond water. (Heb.)	Talk
March 2017	Annual Meeting of the Israel Society for Microbiology (ISM)	Vulcani center	Encapsulated <i>Pseudomonas putida</i> for phenol biodegradation: Use of a structural membrane for construction of a well-organized confined particle.	Poster
March 2017	Annual Meeting of the Israel Society for Microbiology (ISM)	Vulcani center	Will an apple a day keep the doctor away, an affective biodegradation of morpholine.	Poster
May 2017	The 22nd Israel Association of Water Resources conference (E.Y.A.L)	Acco	Phenol biodegradation by bacterial cultures encapsulated in 3D microfiltration-membrane capsules.	Poster
*May 2018	Micropollutants in the environment	Water Research Center, Tel-Aviv University	Endocrine disrupting molecules treatment: 17 α -ethynyestradiol (EE2) biodegradation by using SBP encapsulated <i>Rhodococcus zopfii</i> and <i>Pseudomonas putida</i> F1. (Heb.)	Invited Lecturer
*Mar 2019	Galil-Golan Agriculture towards 2030	Tznobar conference hall	Dairy farm wastewater management towards 2030. (Heb.)	Invited Lecturer
* Mar 2020	Environmental sciences conference	On-line - University of Haifa	Water treatment and biomass immobilization. (Heb.)	Lecturer
*Feb 2021	The Israeli Association for Aquatic Sciences (IAAS)	On-line	Antimicrobial compounds from lake Kinneret microalgae	Two posters

c. Organization of Conferences or Sessions

Year	Name of Conference	Place of Conference (city & country)	Subject of Conference	Role
Dec 2017	Micro pollutant workshop	Kinneret Academic College	Biotechnology as a method to treat micropollutants	Organizer and lecturer

Non-Academic Activity & Positions

Attached Documents

Photocopies of the following certificates (for first appointment only):

- Doctorate, Master's, Bachelor's
- Other certification and letters of recommendation

H. Publications from old to new, with an asterisk marking publications since the last promotion

1. **Kurzbaum E.**, Eckert W., Yacobi Y.Z. (2007) Delayed fluorescence as a direct indicator of diurnal variation in quantum and radiant energy utilization efficiencies of phytoplankton. *Photosynthetica*, 45(4), 562-567. IF 0.976, PLANT SCIENCES 86/152 (Q3). CITED BY: 17
2. **Kurzbaum E.**, Beer S., Eckert W. (2010) Alterations in delayed and direct phytoplankton fluorescence in response to the diurnal light cycle. *Hydrobiologia*, 639(1), 197-203. IF 1.964, MARINE & FRESHWATER BIOLOGY 26/93 (Q2). CITED BY: 10
3. **Kurzbaum E.**, Kirzhner F., Sela S., Armon R. (2010) Efficiency of phenol biodegradation by planktonic *Pseudomonas pseudoalcaligenes* (a constructed wetland isolate) vs. root and gravel biofilm. *Water Research*, 44(17), 5021-31. IF 4.546, WATER RESOURCES 1/76 (Q1). CITED BY: 52
4. Gino E., Starosvetsky J., **Kurzbaum E.**, Armon R. (2010) Combined chemical-biological treatment for prevention/rehabilitation of clogged wells by an iron-oxidizing bacterium. *Environmental Science and Technology*, 44(8), 3123–3129. IF 4.827, ENVIRONMENTAL SCIENCES 9/193 (Q1). CITED BY: 34
5. **Kurzbaum E.**, Kirzhner F., Armon R. (2010) A simple method for dehydrogenase activity visualization of intact plant roots grown in soilless culture using tetrazolium violet. *Plant Root*, 4, 12-16. No IF in JCR. CITED BY:13
6. **Kurzbaum E.**, Zimmels Y., Kirzhner F., Armon R. (2010) Removal of phenol in a constructed wetland system and the relative contribution of plant roots, microbial activity

- and porous bed. *Water Science and Technology*, 62(6), 1327-34. IF 1.056, *WATER RESOURCES* 38/78 (Q2). CITED BY:17
7. **Kurzbaum E.**, Armon R., Zimmels Y. (2010) Isolation of a halotolerant *Streptomyces* sp. from a constructed wetland that biodegrade phenol and various biopolymers. *Actinomycetologica*, 24(2), 31–38. No IF in JCR. CITED BY:8
 8. **Kurzbaum E.**, Kirzhner F., Armon R. (2012) Improvement of water quality using constructed wetland systems. *Reviews on Environmental Health*, 27(1), 59–64. No IF in JCR in 2012. CITED BY:17
 9. **Kurzbaum E.**, Kirzhner F., Armon R. (2014) A hydroponic system for growing gnotobiotic vs. sterile plants to study phytoremediation processes. *International Journal of Phytoremediation*, 16(3) 267-274. IF 1.739, *ENVIRONMENTAL SCIENCES* 107/223 (Q2). CITED BY:7
 10. Menashe O., **Kurzbaum E.** (2014) Small-Bioreactor Platform Technology as a Municipal Wastewater Additive Treatment. *Water Science and Technology*, 69(3) 504-510. IF 1.106, *ENVIRONMENTAL SCIENCES* 157/223 (Q3). CITED BY:13
 11. Azaizeh H., **Kurzbaum E.**, Jaradat H., Menashe O. (2015) The potential of autochthonous microbial culture encapsulation in a confined environment for phenols biodegradation. *Environmental Science and Pollution Research*, 22(19), 15179-15187. IF 2.760, *ENVIRONMENTAL SCIENCES* 65/225 (Q2). CITED BY:13
 12. Menashe O., **Kurzbaum E.** (2016) A Novel Bioaugmentation Treatment Approach using a Confined Microbial Environment: A Case Study in a MBR Wastewater Treatment Plant. *Environmental Technology*, 37(12):1582-90. IF 1.751, *ENVIRONMENTAL SCIENCES* 122/229 (Q3). CITED BY:9
 13. **Kurzbaum E.**, Kirzhner F., Armon R. (2016) Performance comparison of plant root biofilm, gravel attached biofilm and planktonic microbial populations, in phenol removal within a constructed wetland wastewater treatment system. *Water SA*, 42 (1), 166-170. IF 0.958, *WATER RESOURCES* 66/88 (Q3). CITED BY:9
 14. **Kurzbaum, E.**, Bar Shalom, O. (2016) The potential of phosphate removal from dairy wastewater and municipal wastewater effluents using a lanthanum-modified bentonite. *Applied Clay Science*, 123, 182-186. IF 3.101, *MINERALOGY* 5/29 (Q1). CITED BY:23
 15. Armon R, Gold D., Zuckerman U., **Kurzbaum E.** (2016) Environmental Aspects of Cryptosporidium. *Journal of Veterinary Medicine and Research* 3(2), 1048. No IF in JCR. CITED BY:7
 16. **Kurzbaum E.**, Aharoni A., Kirzhner F., Azov Y. Armon R. (2017) Aspects of carbon dioxide mitigation in a closed microalgae photo-bioreactor supplied with flue gas. *International Journal of Environment and Pollution*, 62(1), 1–16. IF 0.506, *ENVIRONMENTAL SCIENCES* 237/242 (Q4). CITED BY:5

17. **Kurzbaum E.**, Raizner Y., Cohen O., Rubinstein G., Bar Shalom O. (2017) Lanthanum-modified bentonite: Potential for efficient removal of phosphates from fish pond effluents. *Environmental Science and Pollution Research*, 24(17), 15182-15186. IF 2.800, ENVIRONMENTAL SCIENCES 83/242 (Q2). CITED BY:11
18. **Kurzbaum E.**, Raizner Y., Cohen O., Suckeveriene R.Y., Kulikov A., Hakimi B., Iasur-Kruh L., Farber Y., Armon R., Menashe O. (2017) Encapsulated *Pseudomonas putida* for phenol biodegradation: Use of a structural membrane for construction of a well-organized confined particle. *Water research*, 121, 37–45. IF 7.051, WATER RESOURCES 1/90 (Q1). CITED BY:43
19. Vardanian A., **Kurzbaum E.**, Farber Y., Butnariu M., Armon R. (2018) Facilitated enumeration of the silicate bacterium *Paenibacillus mucilaginosus* comb. nov. (formerly *Bacillus mucilaginosus*) via tetrazolium chloride incorporation into a double agar-based solid growth medium. *Folia Microbiologica*, 63(3),401–404. IF 1.448, BIOTECHNOLOGY & APPLIED MICROBIOLOGY 133/162 (Q4). CITED BY:13
20. Kumar R., Raizner Y., Iasur Kruh L., Menashe O., Azaizehe H., Kapur S., **Kurzbaum E.** (2018) Extracellular laccase production and phenolics degradation by an olive mill wastewater isolate. *Grasas y Aceites*, 69(1), 231-241. IF 0.891, CHEMISTRY, APPLIED 55/71 (Q3). CITED BY:2
21. Cohen O., Gamliel A., Katan J., **Kurzbaum E.**, Riov J., Bar P. (2018) Controlling the seed bank of the invasive plant *Acacia saligna*: comparison of the efficacy of prescribed burning, soil solarization, and their combination. *Biological Invasions*, 20, 2875-2887. DOI: 10.1007/s10530-018-1738-8. IF 2.897, BIODIVERSITY CONSERVATION 12/59 (Q1). CITED BY:13
22. * Bar Oz Y., Mamane H., Menashe O., Cohen-Yaniv V., Kumar R., Iasur-Kruh L., **Kurzbaum E.** (2018) Treatment of olive mill wastewater using ozonation followed by an encapsulated acclimated biomass. *Journal of Environmental Chemical Engineering*, 6(4), 5014-5023. IF 4.300, ENGINEERING/CHEMICAL 29/143 (Q1). CITED BY:223
23. ***Kurzbaum E.**, Bar Shalom O. (2019) Phosphate removal from dairy wastewater and domestic effluents. *Horizons in Geography*, 95, 60-69. (Heb.) No IF in JCR. CITED BY: not known
24. *Cohen O., Bar P., Gamliel A., Katan J., **Kurzbaum E.**, Weber G., Schubert I., Riov J. (2019) Rain-based soil solarization for reducing the persistent seed banks of invasive plants in natural ecosystems - *Acacia saligna* as a model. *Pest Management Science*, 75(7), 1933-1941. IF 3.750, ANATOMOLOGY 7/101 (Q1). CITED BY:4
25. *Eckert W, Leunert F., Yacobi YZ, Köhler J. **Kurzbaum E.** (2019) Diurnal changes of the delayed fluorescence integral from a *Chlorella vulgaris* culture under ambient light. *Photosynthetica*, 7(1), 40-46. IF 2.562, PLANT SCIENCES 67/234 (Q2). CITED BY:0
26. ***Kurzbaum E.**, Iliasafov L., Kolik L., Starosvetsky J., Bilanovic D., Butnariu M., Armon R. (2019) From the Titanic and other shipwrecks to biofilm prevention: The interesting role

- of polyphenol-protein complexes in biofilm inhibition. *Science of the Total Environment*, 25, 658:1098-1105. doi: 10.1016/j.scitotenv.2018.12.197. IF 6.551, ENVIRONMENTAL SCIENCES 22/265 (Q1). CITED BY:18
27. ***Kurzbaum E.**, Raizner Y., Kuc M.E., Kulikov A., Hakimi B., Iasur-Kruh L., Menashe O. (2019) Phenol biodegradation by bacterial cultures encapsulated in 3D microfiltration-membrane capsules. *Environmental Technology*, 2019, 1-9. DOI: 10.1080/09593330.2019.1587005. IF 2.213, ENVIRONMENTAL SCIENCES 143/265 (Q3). CITED BY: 5
 28. *Bilanovic D., Iliassafov L., **Kurzbaum E.**, Armon R. (2019) Preparing Xanthan-Chitosan Composites in Glycerol. *ChemistrySelect*, 4(21), 6451-6457. DOI: 10.1002/slct.201803368. IF 1.811, CHEMISTRY, MULTIDISCIPLINARY 111/177 (Q3). CITED BY:1
 29. *Seroussi D.E., Rothschild N., **Kurzbaum E.**, Yaffe Y., Hemo T. (2019) Teachers' Knowledge, Beliefs, and Attitudes about Climate Change. *International Education Studies*, 12(8), 33-45. No IF in JCR. CITED BY:10
 30. *Vaddadi L.P., Avisar D., Vadivel V.K., Menashe O., **Kurzbaum E.**, Cohen-Yaniv V., Mamane H. (2020) LP-UV-Nano MgO₂ Pretreated Catalysis Followed by Small Bioreactor Platform Capsules Treatment for Superior Kinetic Degradation Performance of 17 α -Ethinylestradiol. *Materials*, 13(1), 83. IF 3.623, METALLURGY ENGINEERING 17/80 (Q1). CITED BY:2
 31. *Menashe O., Raizner Y., Kuc M.E., Cohen-Yaniv V., Kaplan A., Mamane H., Avisar D., **Kurzbaum E.** (2020) Biodegradation of the Endocrine-Disrupting Chemical 17 α -Ethinylestradiol (EE2) by *Rhodococcus zopfii* and *Pseudomonas putida* Encapsulated in Small Bioreactor Platform (SBP) Capsules. *Applied Sciences*, 10, 336. IF 2.474, ENGINEERING, MULTIDISCIPLINARY 32/91 (Q2). CITED BY:5
 32. ***Kurzbaum E.**, Raizner Y., Kuc M.E., Menashe O. (2020) Small bioreactor platform capsules provide persistent digestive biomass for continuous bioreactors operated under short hydraulic retention times. *Journal of Water Process Engineering*, 37, 101516. IF 5.485, WATER RESOURCES 9/98 (Q1). CITED BY: 3
 33. *Shelly Y., Kuk M., Iasur Kruh L., Azarred S., **Kurzbaum E.** (2020) A new *Acinetobacter* isolate is an extremely efficient biofilm-formative denitrifying bacterium. *Frontiers in Environmental Science*, 8, 184. IF 4.581, ENVIRONMENTAL SCIENCES 82/274 (Q2). CITED BY: 0
 34. *Menashe O., Rosen-Kligvasser J., **Kurzbaum E.**, Suckeverien R. (2020) Structural properties of a biotechnological capsule confined by a 3D-cellulose acetate membrane. *Polymers for Advanced Technologies*. 2020 1-9. IF 3.665, POLYMER SCIENCE 28/88 (Q2). CITED BY:2
 35. *Azerrad S.P., **Kurzbaum E.** (2021) Chemical Decolorization of Textile Wastewater Via Advanced Oxidation Processes: Case Study of Key Parameters with Acid Blue 25. *Water*,

Air, and Soil Pollution, 232(2) 1. IF 2.52 ENVIRONMENTAL SCIENCES 169/274 (Q3).
CITED BY:0

36. *Fradkin O., Mamane H., Kaplan A., Menashe O., **Kurzbaum E.**, Betzalel Y., Avisar D. UV-LED combined with small bioreactor platform (SBP) for degradation of 17 α -ethynylestradiol (EE2) at very short hydraulic retention time. Materials. Accepted 7.10.2021. IF 3.623, METALLURGY ENGINEERING 17/80 (Q1). CITED BY:0

1. Articles or chapters in refereed books

Kurzbaum E. (2009): Delayed fluorescence spectroscopy as a simple and rapid measurement tool for active chlorophyll concentrations, phytoplankton compositions and a possible tool for monitoring photosynthetic traits of phytoplankton. In: Marine Phytoplankton, (William T. Kersey and Samuel P. Munger Eds.), Nova Science Publishers Inc., Hauppauge, NY, USA (pp. 351-354).

2. Refereed conference proceedings

- **Kurzbaum E.**, Beer S., Eckert W. (2006) The relationships between delayed and prompt fluorescence in monitoring photosynthetic traits of phytoplankton. Phycological Society of America (PSA) Abs., Journal of Phycology, 42(1), 28-29.
- **Kurzbaum E.**, Armon R., Zimmels Y. (2009) Utilization of agar, agarose, chitin, polypectate, gellan gum, and phenol as sole carbon and energy source, by a rhizospheric Streptomyces sp. isolated from a constricted wetland. Proceedings of the Thirty-Seventh Meeting of the Israel Society of Ecology and Environmental Science (Isees) at The Davidson Institute of Scientific Education Weizmann Institute of Science 12-13 MAY 2009, Israel Journal of Ecology and Evolution, 55(3), 281 – 304.
- Eckert W., Leunert F., **Kurzbaum E.**, Yacobi Y., Gerhard V., Köhler J. (2017) In situ delayed fluorescence decay kinetics as a proxy for phytoplankton productivity in Lake Kinneret. AQUAFLUO (2).

3. Other articles (in collections or non-refereed journals)

1. **Kurzbaum E.**, Beer S., Eckert W. (2005) The Delayed fluorescence and the prompt fluorescence in Phytoplankton and their relationships. *Kinneret News* (Rimer A. Ed.),28,7-13. (in Hebrew).
2. **Kurzbaum E.**, Yacobi Y.Z., Eckert W. (2013) Development of a novel delayed- fluorescence based in situ profiler for phytoplankton activity measurement. *Kinneret News* (Rimer A. Ed.), 34. (in Hebrew).
3. **Kurzbaum E.**, Yacobi Y.Z., Eckert W. (2014) A novel in situ profiler for phytoplankton photosynthesis measurement. *Eretz ha Kinneret*, 14, 30-33 (in Hebrew).

4. **Kurzbaum E.** (2015) Bioluminescence in the nature. **MAKO** website, published on 9.4.15 (in Hebrew).
5. **Kurzbaum E.,** Bar Shalom O. (2016). Phosphate removal from dairy wastewater. *Eretz ha Kinneret*, 16, 30-31 (in Hebrew).
6. **Kurzbaum E.,** Robinshtain G. Bar Shalom O. (2017). Phosphate removal from fish pond wastewater using Phoslock clay. *Maim Ve Hashkaia*, 550, 12-14 (in Hebrew).
7. *Maman H., Bar Oz Y., **Kurzbaum E.,** Menashe O. (2018) A new method to treat olive mill wastewater. *Handasat Maim*, 117. 30-32 (in Hebrew).
8. *Shelly Y., Kuk M., Zeira G., **Kurzbaum E.** (2021) Let the bacteria do the work: Nitrogen removal from concentrate. *Eretz ha Kinneret*, 30, 25-27 (in Hebrew).

4. Articles in preparation

- Winery wastewater treatment using encapsulation bacteria
- Denitrification using a new biofilm formation isolate
- Phenol biodegradation by *Acinetobacter* EMY
- Coupling enzyme and bacteria in insecticides degradation
- New Algal isolates extracts inhibit various phytopathogens

10. Miscellaneous

Year	Memberships in Academic Professional Associations
2006	Phycological Society of America (PSA)
2009	Israeli Space Society
2009-2017	Israel Society for Microbiology (ISM)
2010, 2014	Israeli water association
2004-2010	Israeli Society of Ecology and Environmental Sciences
2012, 2006	The Israeli Association for Aquatic Studies
2016-2017	Israel Association for Water Resources

Year	Editorial Assignments
2011-2013	In charge of the institutional Seminars, Israel Oceanographic & Limnological Research, The Yigal Allon Kinneret Limnological Laboratory, Israel.

*2017-2020	In charge of the institutional Seminars, Shamir research institute, University of Haifa.

Year	Reviewing for Refereed Journal
*2011- today	<i>International Journal of Water Resources and Environmental Engineering, Journal of Plant Breeding and Crop Science, European Journal of Phycology, Environmental Technology, International Journal of Phytoremediation, Water SA, Johnson Matthey Technology Review, Algal research</i>

Year	Reviewing for Funding Agencies
*2018- today	German-Israeli Foundation for Scientific Research and Development (GIF), The Israeli Ministry of Science, Technology and Space (MOST)

Year	Other Relevant Positions and Activities
*2010-today (some ended)	<p><u>Professional consulting:</u></p> <ol style="list-style-type: none"> 1. CTG Holding Ltd. Tel Mond, Israel. Subject: Drinking water treatment. 2. BioCastle, Israel. Subject: Wastewater microbiology. 3. Hydroflow Ltd., USA. Subject: Water disinfection using electromagnetic field. 4. Terra Green, Israel. Subject: Beneficial effect of rhizosphere microbial cultures for the N fixation in plants <p><u>Public service activities</u></p> <ol style="list-style-type: none"> 1. Student project supervisor, High school "Beit Yerach", Emek Hayarden. 2. Student project supervisor, Yeshivat Haspin, Golan Hights. 3. Professional advisor for the Excellency program in science for teenagers, Kinneret College. 4. Student project supervisor, Yeshivat Haspin, Golan Hights <p><u>Participation in international workshops</u></p> <ol style="list-style-type: none"> 1. 2017: European-Indian workshop, Network on Decentralized Grey Water Treatment & Recycling. Nantes, France. 2. 2017: Nitrogen-transformations: Applications and Challenges, Nazareth, Israel. 3. 2016: Working group on bioreactor performance of the European Society on Biochemical Engineering Science, Bol, Croatia. 4. 2008: Workshop on Phytoplankton in the physical environment, The 15th Workshop of the International Association of Phytoplankton Taxonomy and Ecology (IAP), Ramot, Israel. 5. 2006: Workshop on Algae and the Broader Impacts of Science, 60th Annual Meeting, Phycological Society of America (PSA), Juneau, Alaska, USA.

Patents:

- 1) *"Methods and systems for treating liquids including contaminant molecules" (PCT/IB2018/050990; US20210047216A1; PCT Filed 7.2.2019, PCT/IB2019/050990). Inventors: **Kurzbaum Eyal**, Mamane Hadas, Menashe Ofir, Avisar Dror