# CURRICULUM VITAE MICHAEL E. KORNAROS

# **OFFICE ADDRESS**

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# DATE AND PLACE OF BIRTH: 21 October 1966, Iraklio, Crete (Greece)

#### NATIONALITY: Greek

# **EDUCATION**

- **Ph.D. in Chemical Engineering** : Dept. of Chemical Engineering, University of Patras, Greece, 1995. Grade: *Excellent*. (Advisor: G. Lyberatos).
- **Dipl. Eng.** : Dept. of Chemical Engineering, University of Patras, Greece, 1989 GPA: 8.50/10.0. Rank 4<sup>th</sup>/85 (Advisor: A. Ch. Payatakes).

#### **PROFESSIONAL APPOINTMENTS**

2018-present	Full Professor	Dept. of Chemical Engineering University of Patras, Greece
2011-present	Head of the Laboratory of Biochemical Engineering and Environmental Technology	Dept. of Chemical Engineering University of Patras, Greece
11/2015-9/2017	Head of Division A (Process Engineering and Environment)	Dept. of Chemical Engineering University of Patras, Greece
2014-2018	Associate Professor	Dept. of Chemical Engineering University of Patras, Greece
2011-2014	Assistant Professor (tenured position)	Dept. of Chemical Engineering University of Patras, Greece
2007-2011	Assistant Professor (tenure-track position)	Dept. of Chemical Engineering University of Patras, Greece
2003-2007	Lecturer (tenure-track position)	Dept. of Chemical Engineering University of Patras, Greece
2011-2012	Contracted Tutor in the Postgraduate-Level	Hellenic Open University,
2002-2010	Programme : "Environmental Design of Infrastructure Works"	Patras, Greece
2001-2002	Administrative Manager for the coordination of National (co-funded by EU) and European Programmes	Hellenic Open University, Patras, Greece
2000 - 2002	Contracted Lecturer	Dept. of Chemical Engineering University of Patras, Greece
1997 - 2002	Chemical Engineer (registered engineer for environmental and chemical engineering studies)	Private technical office

1997	Associate Environmental Auditor registered by EARA (The Environmental Auditors Registration Association, UK) with EARA Reg. Number : ESA/FLEA/00197/GREECE	
1996 – 2001	Contracted Researcher	Dept. of Chemical Engineering University of Patras, Greece
1995 – 1996	PostDoc Researcher (Advisor: G. Lyberatos)	Dept. of Chemical Engineering University of Patras, Greece
1995 1991 – 1995	PhD in Chemical Engineering PhD candidate	Dept. of Chemical Engineering University of Patras, Greece
1989-1991	Non-Commissioned Officer	Greek Navy (military service)
1989	Licensed Chemical Engineer (Technical Chamber of Greece)	

#### **Research Interests and Expertise**

- Exploitation of agroindustrial wastes for the production of biofuels (biohydrogen, bioethanol etc) and added-value products (bioplastics, biosurfactants etc.)
- Development of environmental biotechnological methods for municipal and industrial wastewater treatment (removal of nutrients, xenobiotics such as antibiotics, dyes, surfactants, PAHs etc)
- Municipal solid wastes management (Life Cycle Analysis for MSW, selection of optimum scenarios for MSW management, composting technologies)
- Ozonation processes (wastewater treatment, preservation and treatment of natural products etc)
- Kinetics, mathematical modeling and simulation of biotreatment and biotransformation processes
- Environmental monitoring and management of natural ecosystems

#### HONORS, AWARDS AND RECOGNITION

1984 - 1989		Greek National Scholarship Foundation (5 annual fellowships for undergraduate studies)
1989		Technical Chamber of Greece Prize for distinction in undergraduate studies.
1991 - 1995		Foundation for Research and Technology Hellas/ Institute of Chemical Engineering Sciences (FORTH/ICE-HT) Fellowship for postgraduate studies
1996		Invited speaker by the University of Sofia, Laboratory of Thermodynamics and physico-chemical hydrodynamics, 11-16 March 1996.
	1.	<b>Kornaros M.</b> "Biological Processes for Wastewater Treatment", Tempus Joint European Project 9789 (S_JEP-09789-95) on <i>Purification and Control of Natural and Waste Waters</i> , University of Sofia, 11-16 March 1996.
1999 - 2000	2.	<b>Kornaros M.</b> "Biological Nutrient Removal from Wastewaters", Tempus Joint European Project 9789 (S_JEP-09789-95) on <i>Purification and Control of Natural</i> <i>and Waste Waters</i> , University of Sofia, 11-16 March 1996. Greek National Scholarship Foundation Fellowship for postgraduate studies
2005		Best Poster Presentation for the paper :
		Dokianakis S.N., <b>Kornaros M.E.</b> * and Lyberatos G. "Effect of attachment of nitrite oxidizers to CSTR walls on the estimation of kinetic coefficients" poster & oral presentation in the <i>IWA Specialized Conference-Nutrient Management in Wastewater Treatment Processes and Recycle Streams</i> , Krakow, Poland, 18-21 September 2005.

2008

Invited speaker by European Policy Department of the Province of Brindisi in the

	framework of the Watercycle International Conference - WIC 2008, 29-30 May 2008.
	Kornaros M. "Decentralized management of municipal wastewater using an innovative SBR".
2013	The project entitled: "Preliminary design of a treatment plant for energy valorization of agroindustrial wastes (AGROGAS)" with Ref. "Vouchers for SMEs" – Code Num.: 66728744-01-000180 funded by the Ministry of Education, Lifelong Learning and Religious Affairs/O.P. "Competitiveness and Entrepreneurship"/Action "Vouchers for SMEs" was awarded as exemplary project (good practice).
2015	Best Posters Award for the paper :
	Koutra E., Grammatikopoulos G., <b>Kornaros M.</b> "Probing the photosynthetic efficiency of green microalgae used for bioremediation and valorization of anaerobic digestion effluents" poster presented at the <i>International Meeting</i> " <i>Photosynthesis Research for Sustainability-2015" in honor of George C. Papageorgiou</i> , Crete, Greece, 21-26 September 2015.
2015	Invited speaker by the European Innovation Partnership for Agricultural Productivity and Sustainability (EIP-AGRI) in the framework of the EIP-AGRI Workshop <i>"Opportunities for Agriculture and Forestry in the Circular Economy"</i> , Naantali, Finland, 28-29 October 2015.
	<b>Kornaros M.</b> "INTEGRASTE - Development of integrated agro-industrial waste management politics maximizing materials recovery and energy exploitation in Western Greece".
1991 - 2016	Invited speaker in many national conferences and workshops regarding biofuels and particularly biogas production from agro-wastes, municipal solid waste technologies and sustainable management.
2018	Best Posters Award for the poster:
	Vrouvaki I., Koutra E., <b>Kornaros M.</b> , Avgoustakis K., Lamari F. N., Hatziantoniou S. "Preparation and characterization of <i>Pistacia Lentiscus</i> var. <i>Chia</i> essential oil- loaded poly(lactic acid) nanoparticles as novel wound healing agent", poster presentation in the 1 <sup>st</sup> International Conference on Nanotechnologies and <i>Bionanoscience (NANOBIO 2018)</i> , 24-28 September 2018, Heraklion Crete, Greece.
2019	2 <sup>nd</sup> Poster Award for the e-Poster:
	Tsigkou K., Tsafrakidou K., Zagklis D., Zafeiri C. and <b>Kornaros M.</b> "Two-stage anaerobic co-digestion of used disposable diapers' hydrolysate and expired food products: the effect of pretreatment on the system's performance", e-poster presentation in the 5 <sup>th</sup> Distance Education e-Learning Summer School on "Wastewater and Biosolids Management" (WWSS19), 22 – 26 July 2019, Patras, Greece.
2019	1 <sup>st</sup> presentation Award for the presentation:
	Manthos G., Zagklis D., Tsafrakidou P. and <b>Kornaros M.*</b> "Kinetic modelling of bioethanol production from Saccharomyces cerevisiae" oral presentation in the 5 <sup>th</sup> Workshop of Graduates and Post-Docs in Chemical Engineering Sciences (CES-WGP5), 6 November 2019, Patras, Greece.
2021	1 <sup>st</sup> Award (section Environment) for the presentation:
	Aravani V.P., Tsigkou K., <b>Kornaros M.,</b> Papadakis V.G. "Integrated management and valorization of agricultural residues - application in biogas production" oral presentation in the 1 <sup>st</sup> Online Conference of Young Scientists "Mineral Resources- Environment-Chemical Engineering" (CheMop), 26-28 February 2021, Kozani, Greece.

2022 Chemical Engineering Department Award for the best Doctoral Dissertation for 2021 to Konstantina Tsigkou for her Ph.D. Thesis entitled "Development of an integrated waste management system in the context of the circular economy model for the valorization of used disposable nappies and food waste focusing on the production of biofuels and added-value products" under the supervision of **Prof. M. Kornaros**.

2023 Best presentation award for the presentation:

Mougiou N., Didos S., Bouzouka I., Theodorakopoulou A., **Kornaros M.**, Argiriou A. "Valorizing Traditional Greek Wheat Varieties: Use of Barcoding for Species Identification and Biochemical Analysis of Their Nutritional Value" oral presentation in *ICWST 2023: 17. International Conference on Wheat Science and Technologies*, 17-18 August 2023, Budapest, Hungary.

#### **PROFESSIONAL MEMBERSHIPS & AFFILIATIONS**

- ✓ International Solid Waste Association (ISWA), Denmark
- ✓ International Water Association (IWA), UK
- ✓ International Waste Working Group (IWWG), Germany.
- ✓ Resource Recovery Forum (UK)
- ✓ EARA (The Environmental Auditors Registration Association), UK
- ✓ Technical Chamber of Greece
- ✓ Permanent Committee of Environment (Technical Chamber of Greece in the region of Western Greece)
- ✓ Panhellenic Society of Chemical Engineers

#### **MEMBERSHIP IN RESEARCH CLUSTERS & NETWORKS :**

2009 – present Member in the following research clusters:

- "Waste-Valor" Network for Waste Valorization and Sustainable Management of Resources (University of Patras' interuniversity network).
- "BIOMET" Biocolloids Fate and Transport in Environmental Systems (University of Patras' interuniversity network).
- SWAM" European network (cluster) on Sustainable Water Management (FP7-REGIONS-2009-1, CSA-CA).
- > "STINNO" European Industrial Waste Water Cluster (FP7-REGIONS-2009-1, CSA-CA).

#### **INTERNATIONAL RECOGNITION**

Among the top 100,000 scientists worldwide, regardless of scientific field, and in the top 2% of scientists in the "*Biotechnology*" and "*Environmental Sciences*" sub-fields based on the recent bibliometric study classification by Ioannidis, John P.A. (2024), August 2024 data-update for "Updated science-wide author databases of standardized citation indicators", Mendeley Data, V4 (doi: 10.17632/btchxktzyw.7) of Stanford University.

#### **PROFESSIONAL ACTIVITIES & SERVICES**

#### A. Reviews

#### **Journal Editorial**

Co-Editor in the Special Issue of **BioMed Research International** (IF 2.706) entitled: "Multipurpose, Integrated 2nd Generation Biorefineries".

**Member of the Editorial Board** of **Applied Sciences** published by MDPI ((ISSN 2076-3417; CODEN: ASPCC7, *IF 2.838/2021*) section "Environmental and Sustainable Science and Technology" (Sept. 2019-).

Associate Editor (2022-) in journal 'Frontiers in Microbiology' – Section: Systems Microbiology (EISSN 1664-302X, IF 6.064/2021, Citescore 8.2). Review Editor (2021-2022).

*Editorial Board Member* in journal 'Biomass' published by MDPI (ISSN 2673-8783) (April. 2021-).

*Editorial Board Member* of Section "Chemical, Civil and Environmental Engineering" in journal 'Eng' published by MDPI (ISSN 2673-4117) (Aug. 2021-).

*Editorial Board Member* in journal '*Methane*' published by MDPI (ISSN 2674-0389) (Nov. 2021).

*Guest Editor* in journal "Bioresource Technology Reports (ISSN: 2589-014X) - Special Issue: "Microbial bioprocesses for resource recovery from waste streams" (Sept. 2021).

**Guest Editor** in journal *"Frontiers in Bioengineering and Biotechnology"* (IF 5.7/2022)/section *"Bioprocess engineering" - Special Issue "Unlocking Biomass-to-Bioenergy Potential in the Biorefining Framework: Emerging Trends and Opportunities"* (2023).

**Guest Editor** in journal "Sustainable Futures" (IF 3.3/2024) - Special Issue "VSI: Energy sustainability and security".

#### Manuscripts

Water Research, Applied Microbiology and Biotechnology, Journal of Hazardous Materials, Bioresource Technology, Environmental Science and Technology, Chemosphere, International Journal of Hydrogen Energy, Applied Biochemistry and Biotechnology, Journal of Environmental Management, Journal of Chemical Technology & Biotechnology, International Biodeterioration and Biodegradation, Biotechnology & Bioengineering, CLEAN - Soil, Air, Water, Regulatory Toxicology and Pharmacology, Desalination, 1<sup>st</sup> International Conference on Environmental, Industrial and Applied Microbiology, Energies, Annals of Microbiology, Microbial Ecology, CEMEPE2007, 44<sup>th</sup> IEEE Conference on Decision and Control and European Control Conference, 4<sup>th</sup> International Conference on Engineering for Waste and Biomass Valorisation (WasteEng12), Chemical Engineering Journal, Chemical Engineering and Processing: Process Intensification, 5<sup>th</sup> International Conference on Engineering for Waste and Biomass Valorisation (WasteEng14), AIMS Bioengineering, Waste and Biomass Valorisation (WAVE), International Journal of Agricultural & Biological Engineering (IJABE), APERITO Journal, Environmental Science and Pollution Research, Process Biochemistry, Turkish Journal Of Fisheries And Aquatic Sciences, Journal of Agricultural Science, Science of the Total Environment, Global NEST, International Journal of Energy Research.

#### Funding Proposals / Progress Reports – Professional Expertise

- ERC Grants Council (EU)
- Research Grants Council (RGC), Hong Kong.
- QU internal Grants from the Office of Research Support, Qatar University (QU) for the QU Post-Doc Initiative Program (PDOC).
- Progress reports for projects funded under the Operational Program "Competitiveness, Entrepreneurship and Innovation" - call RESEARCH-CREATE-INNOVATE.
- Romanian National Council for Development and Innovation, Partnership Programme Joint Applied Research Projects PCCA 2011.
- Portuguese Foundation for Science and Technology (FCT); Research fields: Agro-industrial Wastewater Mixed Microbial Cultures Value-added bulk chemicals
- Ministry of Science & Technology of Israel Division for Chemistry Materials & Energy, MOST Israel - Infrastructure program 2012-2013 (Research field: biofuel production from organic wastes).

- Thematic Committee for proposal evaluation in the framework of «Bilateral R&D Cooperation Greece-China, 2012-2014», thematic sector «Renewable Energy Sources and Energy Conservation», Operational Programme «Competitiveness and Entrepreneurship».
- Ministry of Education, Lifelong Learning and Religious Affairs, Industrial Experts Registry
- Special Agency of the Ministry of Education, Lifelong Learning and Religious Affairs in the sectors of Research, Technological Development and Innovation, National Action «Cooperation»
- General Secretariat of Research and Technology (GSRT), Ministry of Education, Lifelong Learning and Religious Affairs, Operational Programme «Competitiveness»
- Operational Program for Educational and Vocational Training II (EPEAEK II)/ Ministry of National Education and Religious Affairs
- Programme «Protagoras» National Technical University of Athens
- Greek National Scholarship Foundation; Fellowships in the thematic sector «Biotechnology»
- Technical Chamber of Greece, Licensing Committee for Chemical Engineers
- Member of the Final Audit Team for Technical Auditing of projects financed by the National Coverage Action "Development-support of new innovative enterprises, mainly high knowledge-intensive (Spin-off and Spin-out)" under the call announced by the Special Service for Managing and Implementing Actions in the areas of Research, Technological Development and Innovation (EYDE-ETAK), Ministry of Education, Lifelong Learning and Religious Affairs.

#### **B.** Chairmanship of Conference Sessions

- 9<sup>th</sup> International Conference on Engineering for Waste and Biomass Valorization (WasteEng2022), 27-30 June 2022, Copenhagen, Denmark. (Session: F1 Extraction of molecules and plastic recycling).
- 13<sup>th</sup> Panhellenic Conference of Chemical Engineering, Patras, 2-4 June 2022 (Session: "Treatment and valorization of wastes II").
- 8<sup>th</sup> International Conference on Engineering for Waste and Biomass Valorization (WasteEng20), May 31 June 4, 2021 in VIRTUAL mode. (Session : C5 Valorisation Biorefinery).
- 7<sup>th</sup> International Conference on Engineering for Waste and Biomass Valorization (WasteEng18), Prague, Czech Republic, 2-5 July 2018. (Session: C3 Pretreatment & anaerobic digestion).
- 5<sup>th</sup> Panhellenic Conference "Green Chemistry and Sustainable Development", 20-22 October 2017, Patras, Greece. (Session: Chemical Technology, Biofuels, Renewable Energy Carriers).
- 11<sup>th</sup> Panhellenic Conference of Chemical Engineering, 25-27 May 2017, Thessaloniki, Greece (session «Environment»).
- 9<sup>th</sup> Panhellenic Conference of Chemical Engineering, 23-25 May 2013, Athens, Greece (session «Environment II-Water treatment technologies»).
- 4<sup>th</sup> International Conference on Engineering for Waste and Biomass Valorization, Porto, Portugal, September 10 13, 2012 (session C6: "Solid fermentations").
- 2<sup>nd</sup> International Symposium on Green Chemistry for Environment and Health, September 27-29, 2010, Mykonos, Greece (Session: «Environmentally benign processes and products-Session II»).
- 7<sup>th</sup> International Conference ORBIT 2010 : Organic Resources in the Carbon Economy, June 29

   July 3 2010, Heraklion, Crete, Greece (sessions : «Wastewater II / Olive mill wastes» and «Process control – I»).
- 7<sup>th</sup> Panhellenic Conference of Chemical Engineering, 3-5 June 2009, Patras, Greece (sessions «Pollution and Environmental Technology 2» and «Pollution and Environmental Technology 5»).

- 2<sup>nd</sup> Conference "Small Water and Wastewater Treatment Plants", 2-4 May 2008, Skiathos, Greece (session: "Municipal and industrial wastewaters").
- 2<sup>nd</sup> International Conference on Engineering for Waste Valorization, WasteEng08, 3-5 June 2008, Patras, Greece (session I: "Support tools for aid decision and risk analysis I" and session II: "Anaerobic digestion I").
- Protection and Restoration of the Environment IX, 29 June 3 July 2008, Argostoli, Kefalonia, Greece (session: "Renewable Energy Resources–Sustainable Development").
- 1<sup>st</sup> Conference on Environmental Management, Engineering, Planning and Economics (CEMEPE), 24-28 June 2007, Skiathos, Greece (session "Energy and Environment").
- 1<sup>st</sup> European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP-1), Chania, Crete, Greece, 7-9 September 2006 (session "Applications & agroeffluents").
- Panhellenic Conference *«Small-Scale Wastewater Treatment Plants»*, Portaria, Pilion, Greece, 8-9 April 2006.
- 4<sup>th</sup> Panhellenic Conference of Chemical Engineering, 29-31 May 2003, Patras, Greece (session «Standardization and Metrology»).

# C. Organization of Conferences & Workshops

- Member of organizing committee of the 8<sup>th</sup> International Conference on Biorefinery and Biomanufacturing (ICB 2023), 23-27 July 2023, Athens, Greece.
- Member of organizing committee of the 5<sup>th</sup> Panhellenic Conference "Green Chemistry and Sustainable Development", 20-22 October 2017, Patras, Greece.
- Member of organizing committee of the 2<sup>nd</sup> International Conference on Engineering for Waste Valorization, WasteEng08, 3-5 June 2008, Patras, Greece.
- Member of organizing committee of the *Protection and Restoration of the Environment IX*, 29 June 3 July 2008, Argostoli, Kefalonia, Greece.
- Member of organizing committee of the *Workshop "Integrated Management of Solid Wastes in Western Greece: Problems and Perspectives"* organized by University of Patras and TCG/DWG, Patras, 29 May 2002.

#### D. Member of Scientific Committee of Conferences

- 8<sup>th</sup> International Conference on Biorefinery and Biomanufacturing (ICB 2023), 23-27 July 2023, Athens, Greece.
- 9<sup>th</sup> International Conference on Engineering for Waste and Biomass Valorisation (WasteEng2022), 27-30 June 2022, Copenhagen, Denmark.
- CORFU 2022 9<sup>th</sup> International Conference on Sustainable Solid Waste Management, 15-18 June 2022, Corfu, Greece.
- 8<sup>th</sup> International Conference on Sustainable Solid Waste Management, 17-20 June 2020, Thessaloniki, Greece.
- International Symposium on Constructed Wetlands & Small Decentralized Wastewater Treatment Plants, 29-31 August 2019, Patras, Greece.
- 5<sup>th</sup> International Symposium on Green Chemistry, Sustainable Development and Circular Economy, 30 September- 03 October 2018, Skiathos, Greece.
- 5<sup>th</sup> International Conference on Small and Decentralized Water and Wastewater Treatment Plants (SWAT5), 26-29 August 2018, Thessaloniki, Greece.
- 6<sup>th</sup> International Conference on Sustainable Solid Waste Management (NAXOS 2018), 13-16 June 2018, Naxos Island, Greece.
- 11<sup>th</sup> Panhellenic Conference of Chemical Engineering, 25-27 May 2017, Thessaloniki, Greece
- 5<sup>th</sup> Panhellenic Conference "Green Chemistry and Sustainable Development", 20-22 October 2017, Patras, Greece.

- 5<sup>th</sup> International Conference on Sustainable Solid Waste Management (ATHENS 2017), 21–24 June 2017, Athens, Greece.
- 6<sup>th</sup> International Conference on Environmental Management, Engineering, Planning and Economics (CEMEPE) & SECOTOX Conference, 25-30 June 2017, Thessaloniki, Greece.
- 4<sup>th</sup> International Conference on Sustainable Solid Waste Management (CYPRUS 2016), 23–25 June 2016, Limassol, Cyprus
- 10<sup>th</sup> Panhellenic Conference of Chemical Engineering, 4-6 June 2015, Patras, Greece.
- 3<sup>rd</sup> International Conference on Sustainable Solid Waste Management (TINOS 2015), 2– 4 July 2015, Tinos Island, Greece.
- 4<sup>th</sup> Panhellenic Conference "Green Chemistry and Sustainable Development", 30 October 1 November 2014, Ioannina, Greece
- 2<sup>nd</sup> International Conference on Sustainable Solid Waste Management (ATHENS 2014), 12–14 June 2014, Athens, Greece.
- 9<sup>th</sup> Panhellenic Conference of Chemical Engineering, 23-25 May 2013, Athens, Greece.
- Third International Conference on Environmental Management, Engineering, Planning and *Economics* (CEMEPE 2011) & SECOTOX Conference, Skiathos island, Greece, 19-24 June, 2011.
- "Asset management of medium and small wastewater utilities" (Alexandroupolis-Thrace, Greece, 3-4 July 2009.
- 7<sup>th</sup> International Conference *ORBIT 2010 : Organic Resources in the Carbon Economy,* 29 June 3July 2010, Heraklion, Crete, Greece.
- 3<sup>rd</sup> Conference on Small and Decentralized Water and Wastewater Treatment Plants, 14-16 May 2010, Skiathos, Greece.
- 7<sup>th</sup> Panhellenic Conference of Chemical Engineering, 3-5 June 2009, Patras, Greece.
- Watercycle International Conference on Water Sustainable Management Best Practices (WIC2008), Brindisi, 29-30 May 2008, Italy.

#### **UNIVERSITY SERVICES**

#### **University of Patras**

Scientifically Responsible for University of Patras' Wastewater Treatment Plant (2015-present)

Member, Recycling Committee (2005-present)

Member, Environmental Management Committee; Coordinator of the Sub-committee for waste management and recycling (2011-present)

University's Representative, Evaluation Committee for the International Open Tender for the Construction of a Municipal Solid Waste Treatment Plant for the city of Patras (Greece) (2011-present)

University's Representative, Consulting services to the city of Patras regarding Municipal Solid Wastes management (2003-present)

University's Representative, Regional Environmental Committee for the operation of the Industrial Zone of Patras (2012-present)

#### University of Patras / Department of Chemical Engineering

Representative of the Department of Chemical Engineering in the Research and Management Committee of E.L.K.E. University of Patras (12/2017-present).

Head of Section A (Process & Environmental Engineering) (2015 – 2017)

Member, Undergraduate Programme Committee (2003 – present)

Member, Student laboratories Committee (2003 – present)

Member, Building and Security Committee (2003 – 2010)

Member, Seminars Committee (2010 – 2011)

Member, Faculty members' evaluation Committee (2008 - present)

Member, Faculty Electoral Body (2011 - present)

#### University of Patras / Department of Chemistry

Member, Faculty Electoral Body (2012-present)

# National Technical University of Athens / School of Civil Engineering

Member, Faculty Electoral Body (2012-present)

# Aristotle University of Thessaloniki, Department of Chemistry

Member, Faculty Electoral Body (2012-present)

# Technical University of Crete / Environmental Engineering Department Member, Faculty Electoral Body (2012-present)

# **TEACHING ACTIVITY**

#### University of Patras / Department of Chemical Engineering (Undergraduate)

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Course #	Course Title	Offered
XME52	Environmental Technology: Solid Waste Management	SOO, SO1, SO2,
		SO3, FO3-F10,
		S12-S17
XM742	Biochemical Process Engineering (with Prof. S. Pavlou)	F03, F19
XME92	Environmental Technology: Wastewater Treatment	F11-F15
CHM_E_A1	Wastewater Engineering (with Prof. D. Mantzavinos)	F16-F24
CHM_E_A5	Solid Waste Management	S17-S24
CHM_E_A3	Bioreactor Analysis and Design	F21-F24
CHM680	Biology	S12
CHM846	Chemical and Biochemical Engineering Laboratory	S04-S11
	(with Lecturer D. Spartinos)	
CHM846	Chemical and Biochemical Engineering Laboratory	S12, S13
	(with Assist. Prof. A. Katsaounis)	
CHM846	Chemical Engineering Processes Laboratory II	S14, S15, S16,
	(with Assoc. Prof. Ch. Paraskeva)	S17, S19, S20
CHM855	Unit Operations II	S07-S12
CHM840	Process Dynamics and Control	S18-S21
	(with Prof. S. Pavlou)	
CHM1041	Plant Design and Economics Laboratory	S21-S24
	(with Prof. I. Kookos, E. Amanatides, D. Vayenas, M.	
	Dimarogona, A. Katsaounis, G. Kyriakou)	

#### University of Patras / Department of Material Science (Undergraduate)

Course #	Course Title	Offered
YLPR365	Materials and Environment	S03- S11

#### University of Patras / Department of Chemical Engineering (Postgraduate)

Course Title	Offered
Invironmental Biotechnology	F06, F08, F10-F20
Alternative Energy Sources with Prof. E. Amanatides, S. Bebelis, D. Kondarides, A Koutsoukos, X. Vervisios)	F13-F20
	nvironmental Biotechnology Iternative Energy Sources

#### University of Patras / Postgraduate Programme in Environmental Sciences

-	Course #	Course Title	Offered
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ESO 01	Atmospheric pollution, wastewater, and solid wastes	S12, F13, F14,
	management (with Prof. Ch. Kordulis and Ch. Paraskeva)	F16, F17, F20,
		F23, F24

#### University of Patras / Postgraduate Programme in Green Chemistry and Clean Technologies

Course #	Course Title	Offered
GCHE_G102	Environmental Impacts of Chemical Processes	F14, F15, F16, F17
	and Alternative Solvents	
	(with Prof. H. Karapanagioti, C. Poulos, S. Boghosian)	
	Renewable raw materials for the production of chemicals	S14, S15, S16
	and energy	
	with Ch. Papadopoulou, C. Poulos, Ch. Kordulis)	

# University of Crete / Department of Chemistry

#### / Postgraduate Programme "Environmental Science and Engineering"

Course #	Course Title	Offered
	Wastewater Treatment	S99
	Municipal Solid Waste Treatment	F99, S05, S06

#### Hellenic Open University

#### / Postgraduate Programme\* "Environmental Design of Infrastructure Works MSc"

Course #	Course Title	Offered
PSE60	Design of infrastructure works and	Y02, Y03, Y04,
	environmental protection	Y05, Y06, Y07,
		Y08, Y09

# / Postgraduate Programme\* "Waste Management MSc"

Course #	Course Title	Offered
DIA60	Liquid Wastes Management	Y14-Y20
DIA51	Solid Wastes Management	Y21-Y24

\* According to Greek Law (L.2552/97) every course offered by the Hellenic Open University is equivalent to three (3) courses of the same level (i.e. postgraduate) offered in conventional Universities. The ECTS Credit Points of PSE60, DIA60, and DIA51 are 20.

#### Other teaching activities (short courses)

Institution	Course Title	Offered
University	Environmental protection through waste management	2000
of Patras	(29 hours)	
Prefecture	Training of executives participating in recycling programs	1999
of Achaia	(30 hours)	
Prefecture	Training of workers in materials recycling plants	1999
of Achaia	(42 hours)	
University	Development of decontamination methods in industry	1996
of Patras	(34 hours & 22 hours)	
University	Environmental protection and management	1995-1996
of Patras	(20 hours)	

#### **RESEARCH SUPERVISION**

#### University of Patras / Department of Chemical Engineering

A. Postdoctoral Fellows (Research Associates)

- 1. <u>Georgia Kournoutou</u>, 2024 –
- 2. <u>Vasiliki Adamopoulou</u>, 2024 –
- **3.** <u>George Manthos</u>, 2023 2024.
- 4. *Dimitris Zagklis*, 2017 2023.
- 5. <u>Konstantina Tsigkou</u>, 2021 2023.
- 6. <u>Eleni Koutra</u>, 2020 2022.
- 7. Panagiota Tsafrakidou, 2016 Dec. 2019.
- 8. <u>Mathieu Brulé</u>, 2016 2018.
- **9.** <u>Christina Economou</u>, 2016 2017.
- **10.** <u>Aikaterini Vavouraki</u>, 2010 2016.
- **11.** *Spyros Dokianakis*, 2006 2009.

# B. Ph.D. Students

- 1. Natalia Perivolari "Strengthening the technological and environmental innovation of the brewery industry through biological energy utilization of its organic by-products" [in progress]
- 2. <u>Katerina Klavdianou</u> "Fate and impact of bioplastics in the bioprocess of composting in the context of sustainable waste management" [in progress]
- **3.** <u>Raphael-Konstantinos Tolis</u> "Fate and impact of bioplastics in the bioprocess of anaerobic digestion in the context of sustainable waste management" [in progress]
- **4.** <u>*Eirini Sventzouri*</u> "Microalgae-based digestate valorization towards sustainable bioplastics production" [in progress]
- **5.** <u>Polytimi Papavasileiou</u> "Valorization of rice hull for the biotechnological production of natural phenolic antioxidants using microalgae" [in progress]
- 6. <u>Vasilis Andriopoulos</u> "Production of phenolic compounds from microalgae and characterization of biomass residues for utilization in fish farms" [in progress]
- <u>Leila Abbaszadeh</u> "Study of biological nitrification kinetics under harsh environmental conditions" [Dec. 2023]
- 8. <u>Savvas-Giannis Mastropetros</u> "Valorization of liquid anaerobic effluents from biogas production plants through the cultivation of photosynthetic microorganisms for the production of biotechnological products of high added value" [Nov. 2023]
- **9.** <u>George Manthos</u> "Holistic management of oil production by-products for energy production and useful products in the context of circular economy" [Nov. 2023]
- 10. <u>Konstantina Tsiqkou</u> "Development of an integrated waste management system in the context of the circular economy model for the valorization of used disposable nappies and food waste focusing on the production of biofuels and added-value products" [Dec. 2020]
- <u>Eleni Koutra</u> "Bioremediation and valorization of anaerobically treated agrowastes and putrescible municipal solid wastes for the production of high added-value bio-chemicals using microalgae" [Dec. 2019]
- **12.** <u>Margarita Dareioti</u> "Energy valorization of agro-industrial wastes and sweet sorghum for the production of gaseous biofuels through anaerobic digestion" [Feb. 2015]
- **13.** <u>Constantina Kourmentza</u> "Polyhydroxyalkanoates (PHAs) production from synthetic media and olive mill wastewaters using mixed and pure cultures of microorganisms" [Dec. 2012]
- **14.** <u>Asimina Tremouli</u> "Development of an innovative fuel cell for energy valorization of wastewaters" [Oct. 2013]. Principal Advisor: Prof. G. Lyberatos (*Dept. of Chemical Engineering*)
- <u>Nikolaos Venetsaneas</u> "Development of a two-stage system for biotechnological production of hydrogen and methane using cheese whey" [Feb. 2012]. Principal Advisor: Prof. G. Lyberatos (Dept. of Chemical Engineering)
- 16. <u>Theofilos Vlassis</u> "Energy exploitation of glycerol for methane, hydrogen and/or electricity generation using a microbial fuel cell" [Jan. 2012]. Principal Advisor: Prof. G. Lyberatos (*Dept. of Chemical Engineering*)

- <u>Constantina Pakou</u> "Study of the presence and fate of organic pollutants during composting of excess biological sludge" [Feb. 2010]. Principal Advisor: Prof. G. Lyberatos (*Dept. of Chemical Engineering*)
- <u>Paraskevi Blika</u> "Biotechnological treatment methods of olive mill wastewaters" [Sep. 2009]. Principal Advisor: Prof. G. Lyberatos (*Dept. of Chemical Engineering*)
- <u>Panagiotis Vlachos</u> "Development of alternative processes for deodorization and decontamination of natural corks" [Oct. 2007]. Principal Advisor: Prof. G. Lyberatos (*Dept. of Chemical Engineering*)
- 20. <u>Martha Georgiopoulou</u> "Development of methods for the selection of the best available technology for wastewater treatment" [Oct. 2007]. Principal Advisor: Prof. G. Lyberatos (*Dept. of Chemical Engineering*)
- 21. <u>Ioanna Ntaikou</u> "Hydrogen production from synthetic media and sweet sorghum biomass using a pure culture of the fibrolytic bacterium *Ruminococcus albus*" [Oct. 2007]. Principal Advisor: Prof. G. Lyberatos (*Dept. of Chemical Engineering*)
- 22. <u>Spyridon Dokianakis</u> "Effect of xenobiotic compounds and dissolved oxygen on nitrification and optimization of nitrogen removal from municipal wastewaters" [Feb. 2006]. Principal Advisor: Prof. G. Lyberatos (*Dept. of Chemical Engineering*)

#### C. M.Sc. Students

- <u>Aeneas Giotis</u> "Biostabilization of olive mill solid wastes using fungal solid-state fermentation" [Aug. 2021]
- <u>George Manthos</u> "Kinetic study and mathematical modeling of bioethanol production from kitchen wastes" [July 2020]
- **3.** <u>Evangelos Angelis</u> "Chemical pretreatment of the organic fraction of municipal solid wastes for biofuels production" [June 2020]
- <u>Vasilios Manos</u> "Valorization of fermentable municipal solid wastes for bioethanol production" [June 2020]
- 5. <u>Marina Papadionysiou</u> "Biotechnological valorization of used disposable nappies and expired food products for biohydrogen and volatile fatty acids production" [June 2019]
- 6. <u>Stefanos Metzidakis</u> "Optimization of biological nitrogen removal in wastewater treatment systems". [Oct. 2016] Principal Advisor : Prof. G. Lyberatos (*Dept. of Chemical Engineering*)
- <u>Myrsini Sakarika</u> "Kinetic study of biomass growth and lipid synthesis of the microalga Chlorella vulgaris under heterotrophic conditions and energy valorization of the produced biomass" [April 2016]
- 8. <u>Christos Koukoumis</u> "Identification of pharmaceutical compounds and study of their removal in wastewater treatment plants" [July 2015]
- <u>Constantinos Stavropoulos</u> "Energy valorization of expired dairy products through anaerobic codigestion with agroindustrial wastes and compost production of high added-value using earthworms" [Mar. 2015].
- <u>Maria Zakoura</u> "Development of an innovative high-rate anaerobic system for olive mill wastewater treatment" [Sept. 2014]
- <u>George Raptis</u> "Biotechnological production of bio-surfactants using a pure culture of the microorganism Tetragenococcus koreensis" [July 2014]
- 12. <u>Marios</u> <u>Papadiamantopoulos</u> "Design and technoeconomical optimization of a plant for energy exploitation of agroindustrial wastes" [Sept. 2012]
- <u>Constantinos Tseronis</u> "Optimum siting of a MSW treatment plant combined with a landfill for residues" [Sep. 2012]
- 14. <u>Eleni Vlassi</u> "Study of ozone's disinfection activity on herbs: the case of oregano" [Mar. 2012]
- **15.** <u>Christos Lytras</u> "Design of an SBR-type bioreactor for biological nitrogen removal from wastewaters through nitrates-bypassing" [July 2011] Principal Advisor: Prof. G. Lyberatos (*Dept. of Chemical Engineering*)

- **16.** <u>Alexandra Kakogiani</u> "Effect of aeration fraction on biological nitrogen removal from municipal wastewaters in a cascade CSTR system" [July 2006]
- **17.** <u>Georgia Flessia</u> "Biological nitrogen removal from municipal wastewaters by-passing nitrate production in a pilot-scale Sequencing Batch Reactor (SBR)" [July 2006]
- <u>Stamatina Papageorgiou</u> "Studying the fate of pendimethalin in soil and aqueous receptors" [July 2006]

# University of Patras / Interdepartmental Postgraduate Programme in Environmental Sciences MSc. Students

- 1. <u>Konstantinos Pispas</u> "Production and recovery of phycocyanin from cyanobacteria" [October 2024]
- 2. <u>Vasiliki Papavasileiou</u> "Treatment and valorization of olive mill wastewaters through high-rate anaerobic digestion" [May 2021]
- **3.** <u>Andreas Rapsomanikis</u> "Photocatalytic and antimicrobial activity of inorganic semiconductors on pathogenic microorganisms" [June 2017]
- <u>Sofia Moschopoulou</u> "Effect of operating parameters variation on biological nitrogen removal from municipal wastewaters in a full-scale oxidation ditch [Mar. 2009] Co-advisor: Prof. G. Lyberatos (Dept. of Chemical Engineering)
- 5. <u>Thalassis Karkaletsis</u> "Degradation of PAHs using ozone" [Oct. 2005]
- 6. <u>Dimitrios Krommydas</u> "Biological nitrogen removal from municipal wastewaters via nitrite in continuous-flow systems" [July 2005]
- <u>George Zygouras</u> "Life Cycle Analysis as an environmental impact assessment tool. The case of flour production in a Greek industry" [June 2005] Co-advisor: Assist. Prof. C. Agelopoulos (*Dept. of Biology*)
- 8. <u>Elias Mantzavrakos</u> "Impacts of a marine fish farm in Argolikos Gulf (Greece) on physicochemical parameters of the water column and the sediment" [Mar. 2003] Co-advisor: Prof. G. Lyberatos (*Dept. of Chemical Engineering*)

# University of Patras / Postgraduate Programme in 'Green Chemistry and Clean Technologies'

#### **MSc. Students**

- <u>Christiana Genethliou</u> "Biodegradation of phenolic compounds from olive mill wastewaters under conditions of mesophilic and thermophilic anaerobic digestion and study of their toxicity" [March 2017]
- <u>Konstantina Tsigkou</u> "Development of a high-rate anaerobic thermophilic bioreactor for the treatment of olive mill wastewater (OMW)" [April 2016]

# Hellenic Open University

#### / Postgraduate Programme "Environmental Design of Infrastructure Works MSc"

- 1. <u>George Spyropoulos</u> "Development of an innovative high-rate anaerobic system for olive mill wastewater treatment" [Sep. 2012]
- 2. <u>Georgia Mavromati</u> "Exploitation of animal wastes for production of biofuels" [Sep. 2012]
- <u>Polyxeni Fiorou</u> "Evaluation of treatment efficiency during the operation of the existing municipal wastewater treatment plant of Vonitsa town, Municipality Aktio-Vonitsa, and its optimization" [Sep. 2012]
- 4. <u>Athanasios Papapanagiotou</u> "Environmental Impact Assessment and protection in the case of MSW baling and effect of baling to alternative methods of MSW management" [Sep. 2010]
- <u>Panagiotis Ekonomou</u> "Design of an integrated system for MSW treatment in the Prefecture of South Fokida" [Sep. 2009]
- 6. <u>Andreas Bares</u> "Study on alternative methods for waste paper valorization" [Sep. 2009]

- 7. <u>Constantinos Meletis</u> "Evaluation of production rate and composition of hospital wastes in the municipality of Lamia. Alternative methods of hospital wastes management" [Sep. 2009]
- 8. *Dionyssios Apostolopoulos* "A comparative study for energy valorization of MSW" [Apr. 2009]
- <u>Marinos Skandamis</u> "Small decentralized biological systems for municipal wastewater treatment" [Sep. 2008]
- <u>Georgia Mantzana</u> "Preliminary design of a programme for source-separation and recovery of waste paper in the municipality of North Kynouria (Prefecture of Arkadia)" [Sep. 2008]
- <u>Dimitrios Papadimos</u> "Management and valorization of animal wastes in the Prefecture of Preveza" [Sep. 2008]
- 12. <u>Anastassios Tzolas</u> "Evaluation of production rate and composition of hospital wastes in the hospital of St. Andreas in Patras" [Sep. 2007]
- **13.** <u>Efstathia Tsiliri</u> "Preliminary design of a programme for source-separation and recovery of waste paper in the University of Patras" [Sep. 2007]
- 14. <u>Vassiliki Poulianou</u> "Evaluation of production rate and composition of hospital wastes in the municipality of Ioannina" [Sep. 2007]
- 15. <u>Maria Spyropoulou</u> "Study on alternative methods for waste paper valorization" [Sep. 2007]
- **16.** <u>Constantinos Tzomakas</u> "Environmental Impact Assessment of alternative systems for nonrecyclable MSW management using Life Cycle Assessment" [Sep. 2007]
- Panagiotis Floratos "Environmental Impact Assessment of the construction of a municipal wastewater treatment plant (MWTP) using Life Cycle Assessment. The case of Patras' WWTP" [Sep. 2007]
- 18. <u>Efrosini Perdikogiani</u> "Optimum design of MSW management in the Island of Elafonissos (Greece)" [Sep. 2007]
- <u>Nikolaos Kouremenos</u> "Technical and environmental impact assessment of the Materials Recovery Facilities (MRF) of the municipality of Patras (Greece)" [May 2007]
- **20.** <u>Charalampos Bouras</u> "Treatment and energy exploitation of municipal solid wastes in the Prefecture of Preveza (Greece) using thermal processes" [Sep. 2006]
- **21.** <u>Theodoros Barzos</u> "Assessment of alternative technologies for biological sludge management from municipal wastewater treatment plants" [Sep. 2006]
- **22.** <u>Theodoros Thanassoulias</u> "Environmental Impact Assessment of the operational phase of a municipal wastewater treatment plant (MWTP) using Life Cycle Assessment" [Sep. 2006]
- **23.** <u>Eleni Tsaousi</u> "Environmental Impact Assessment for a MSW composting plant using a mathematical simulator" [Sep. 2004]
- 24. <u>Andreas Karabelas</u> "Design of a recycling program for municipal solid wastes and environmental impact assessment of its implementation" [Sep. 2004]
- **25.** <u>Christos Dimitrelos</u> "Comparative, environmental and technoeconomical evaluation of thermal and biological methods of municipal solid waste treatment" [Mar. 2004]

#### / Postgraduate Programme\* "Waste Management MSc"

- <u>Christos Samlides</u> "Biological nitrogen removal from wastewaters via bypassing nitrates production" [Sep. 2015]
- <u>Theodossios Fotiou-Kiosses</u> "Study of construction wastes' management in Serres (Greece)" [Sep. 2015]
- 3. <u>Theofanis Pliatsikas</u> "Management and treatment of piggery wastewaters in the regional unit of Larissa, Greece" [May 2016]
- 4. Maria Tsiouni "Integrated management of animal waste" [May 2016]
- 5. <u>Konstantinos Bozis</u> "Treatment and energy exploitation of municipal wastewater using microbial fuel cells" [Sep. 2016]

- 6. <u>Evaggelia Tsiardi</u> "Exploiting alternative methods for the management of digestate produced by anaerobic bioreactors of agroindustrial wastes, municipal excess sludge and agricultural residues" [Sep. 2016]
- 7. <u>Alexios Kalbouros</u> "Aerobic digestion as a method of managing livestock waste to produce compost" [Sep. 2017]
- **8.** <u>Dimitrios Nasiadis</u> "Integrated utilization of agricultural residues and waste from livestock farms to produce energy and products in the Prefecture of Pieria, Greece" [Sep. 2017]
- **9.** <u>Nikolaos Michalopoulos</u> "Utilization of agroindustrial, livestock and slaughter house wastes for final products and energy production. The case of Tripolis, Greece" [Sep. 2017]
- **10.** <u>Stefanos Daskalas</u> "Utilization of available sources of residual Biomass for biogas production. Case study in the area of Drama" [Sept. 2018].
- **11.** <u>Maria Koiou</u> "Utilization of agricultural waste and residues for energy and compost production. Case study in the greater area of Thessaloniki" [Sept. 2018].
- **12.** <u>Antonis Zambelis</u> "Investigation of the perspectives of energy utilization of agricultural and livestock waste through anaerobic digestion in relation to the size of the livestock facilities served" [Sept. 2018].
- **13.** <u>Konstantinos Kotrotsos</u> "Valorization of agricultural residues for energy and compost production. Case study in the wider area of Larissa" [Sept.2018].
- 14. <u>Dimitrios Kalousios</u> "Management study for the treatment and sorting of municipal solid waste as well as the treatment of pre-selected organic municipal solid waste via anaerobic digestion and valorization of the produced biogas" [Sept. 2019].
- **15.** <u>Chrysovalantou Anthimou</u> "Valorization of agricultural and livestock waste for biogas production. Possibilities and prospects for our country" [Sept. 2019].
- **16.** <u>Magdalini Ignatiadou</u> "Management of inert materials in the construction sector with the development of recycling planning through innovative technologies in an expanding existing company" [Sept. 2019].
- 17. Michael Koutsakis "Management and reuse of Thessaloniki's wastewaters" [Sept. 2020].
- **18.** <u>Georgia Georgiou</u> "Modern methods of treatment and valorization of waste from olive oil production units in Greece" [Sept. 2020].
- 19. <u>Ekaterini Kotta</u> "Alternative valorization methods of organic municipal solid waste" [Sept. 2020].
- **20.** <u>Demosthenes Thomaidis</u> "Alternative valorization methods of pre-selected household biowaste. Case study in the Municipality of Chios" [Sept. 2020].
- 21. <u>Christos Galazoulas</u> "Anaerobic digestion of livestock waste for energy production. Case study in a biogas production unit in the area of Megali Chora Agriniou" [Sept. 2020].
- 22. <u>George Arvanitakis</u> "Waste production from olive mills in the Regional Unit of Messinia. Impacts, management, and valorization" [May 2021].
- **23.** *Loannis Toufidis* "Modernization of an existing dairy wastewater treatment plant" [Sept. 2021].
- 24. <u>Vasilis Tsipis</u> "Modeling and optimization of a pilot system for the anaerobic digestion of municipal waste" [Sept. 2021].
- **25.** <u>Dimitrios Bourkas</u> "Mapping the production and management of bauxite residues in Greece and Europe Innovative practices for valorization" [Sept. 2022].
- **26.** <u>Dionysios Mandilaris</u> "Environmental impact assessment of a wind farm and waste management after the end of its life" [Sept. 2023].
- **27.** <u>Georgios Alexakis</u> "Modern technologies for the reuse of treated municipal and industrial wastewater, with an emphasis on their use for crop irrigation in Greece" [Sept. 2024].
- **28.** <u>Stamatina Athanasiou</u> "Solid waste management proposed actions in the Salamis area with an emphasis on the circular economy" [September 2024].

Participation in more than 70 M.S. Theses of the Hellenic Open University as a second reviewer.

# University of Crete / Department of Chemistry

# / Postgraduate Programme "Environmental Science and Engineering"

# M.S. Students

- 1. <u>Dimitrios Zervas</u> "Study on the distribution of surfactants (LAS) in municipal wastewater treatment plants" [Mar. 2004] Co-advisor: Prof. G. Lyberatos (*Dept. of Chemical Engineering*)
- <u>Chryssovalantis Xezonakis</u> "Comparative evaluation of white-rot fungi for the removal of phenolic compounds from olive mill wastewaters" [Sep. 2004] Co-advisor: Prof. G. Lyberatos (*Dept. of Chemical Engineering*)

# Participation in the board of reviewers/examiners for MSc Thesis

# **University of Patras**

- 1. Maria Liapi [Department of Biology, Dec. 2006]
- 2. *Dimitrios Zagklis* [Department of Chemical Engineering, Oct. 2012]
- 3. <u>Theano Mavrikou</u> [Department of Chemical Engineering, Jan. 2013]
- 4. Maria Tsiflikiotou [Department of Chemical Engineering, Oct. 2014]

# Abroad

- <u>Ichipi Emmanuel</u>, Faculty of Engineering, Built Environment and Information Technology, Department of Chemical Engineering, University of Pretoria, Pretoria, Republic of South Africa [Nov. 2021]
- <u>Mukhethwa Judy Mukwevho</u>, Faculty of Engineering, Built Environment and Information Technology, Department of Chemical Engineering, University of Pretoria, Pretoria, Republic of South Africa [Aug. 2020]
- <u>Coetzee Johan Jakobus</u>, Faculty of Engineering, Built Environment and Information Technology, Department of Chemical Engineering, University of Pretoria, Pretoria, Republic of South Africa [July 2017]
- 4. <u>Bezza FA</u>, Faculty of Engineering, Built Environment and Information Technology, University of Pretoria, PRETORIA 0002, Republic of South Africa [July 2015]

Participation in the board of reviewers/examiners for PhD Dissertations University of Patras / Department of Chemical Engineering

- 1. Constantina Marazioti [Sep. 2003]
- 2. Panagiota Drillia [Jan. 2005]
- 3. Michalis Fountoulakis [July 2005]
- 4. Spyridon Dokianakis [Feb. 2006]
- 5. Georgia Antonopoulou [Oct. 2006]
- 6. Ioanna Ntaikou [Nov. 2006]
- 7. Constantinos Dravillas [Feb. 2007]
- 8. Charalampos Kalfas [Mar. 2007]
- 9. Panagiotis Vlachos [Oct. 2007]
- 10. Martha Georgiopoulou [Oct. 2007]
- 11. Eleni Koutrouli [Feb. 2008]
- 12. Paraskevi Blika [July 2009]
- **13.** Constantina Pakou [Feb. 2010]
- 14. George Savvoglidis [Sep. 2010)]
- 15. Theofilos Vlassis [Jan. 2012]
- 16. Nikolaos Venetsaneas [Feb. 2012]

- 17. Michalis Pikridas [Oct. 2012]
- 18. Athanasios Megaritis [Dec. 2013]
- 19. Dimitrios Zagklis [Nov. 2015]
- 20. Kalliopi Florou [Nov. 2018]
- 21. Dimitrios Ladakis [Nov. 2018]
- 22. Maria Zakoura [Nov. 2019]
- 23. Deskali Endrit [Oct. 2020]
- 24. Eleni Moutousidi [Dec. 2021]
- 25. Stylianos Kakavas [July 2022]
- 26. Konstantinos Papadopoulos [Aug. 2022]
- 27. Charikleia Zampeta [Nov. 2022]
- 28. Christiana Genethliou [Nov. 2022]
- **29.** Konstantinos-Solon Papageorgiou-Flambouras [Aug. 2023]
- **30.** Alexandra Ioannidi [Oct. 2023]
- 31. Christina Vasilakopoulou [Dec. 2023]

# **University of Patras**

- 1. Eleni Koutsopoulou, Department of Geology [Jun. 2012]
- 2. Stamatia Bellou, Department of Biology [Jan. 2015]
- 3. Andriana Aravantinou, Department of Civil Engineering [May 2018]
- 4. Fotios Katrivesis, Department of Environmental Engineering [May 2021]
- 5. Ekaterini Lappa, Department of Chemistry [June 2021]
- 6. Marianna Dourou, Department of Biology [August 2021]
- 7. Panagiotis Dritsas, Department of Biology [September 2024]

#### Abroad

- 1. ARSALAN ALAVIANGHAVANINI, College of Science, Technology, Engineering and Mathematics, Murdoch University, Western Australia [Aug. 2024]
- 2. JOSUE KASSONGO, School of Science, College of Science, Engineering and Health, RMIT University, Melbourne, Australia [Apr. 2023]
- **3.** MANISH CHANDRA KANNAUJIYA, Department of Chemical Engineering, National Institute of Technology Durgapur, West Bengal, India [Dec. 2021]
- **4.** RAYMOND TREVORAH, School of Engineering, RMIT University, Melbourne, Australia [May 2020]
- 5. WICHUTA YOUYONG, School of Engineering, RMIT University, Melbourne, Australia [Dec. 2017]
- **6.** PHUMZA TIKILILI, Faculty of Engineering, Built Environment and Information Technology, University of Pretoria, PRETORIA 0002, Republic of South Africa [Jan. 2017]
- **7.** RAMPRAKASH B, Faculty of Science and Humanities, Anna University, Centre for Research, Chennai 600 025, INDIA [July 2015]
- 8. MUJYAMBERE JEAN MARIE VIANNEY, Faculty of Science and Humanities, Anna University, Centre for Research, Chennai 600 025, INDIA [July 2015]
- **9.** LAKSHMI DEVI, Department of Chemical Engineering, Faculty of Technology, Anna University, Chennai 600 025, INDIA [Oct. 2011]

#### University of Patras / Department of Chemical Engineering

#### Undergraduate Students (indicative list)

- 1. <u>Marina Efthimiou</u> "Study of biological oxidation of nitrites in soil columns" [Feb. 2005]
- <u>Anthia Zacharopoulou</u> "Biological nitrogen removal from municipal wastewaters via nitrite in a pilot-scale SBR" [Dec. 2005]
- **3.** <u>*Ioanna Manta*</u> and <u>*Francesca Chanioti*</u> "Development of an experimental prototype for studying the effect of aeration on biological nitrogen removal from municipal wastewaters" [Oct. 2006]
- 4. <u>Amalia Thlimmenou</u> and <u>Sofia Stamatatou</u> "Degradation of PAHs using ozone: the case of phenanthrene" [Sep. 2006]
- <u>Erato Altoka</u> and <u>Ioanna Karavatou</u> "Effect of ozonation on the microbial load of Greek raisins" [Oct. 2007]
- 6. <u>Constantinos Katsieris</u> and <u>Dionyssios Kontoulis</u> "Preservation of table grapes using gaseous ozone" [Oct. 2007]
- <u>Soultana Koza</u> "Comparative evaluation of a conventional wastewater treatment plant with a WWTP operating with the PND concept using Life Cycle Assessment (LCA)" [Jan. 2008]
- 8. <u>Sourmeli Sofia</u> "Effect of aeration fraction on biological nitrogen removal from municipal wastewaters in a cascade CSTR system" [Jan. 2008]
- <u>Sotirios Roussos</u> "Kinetics of nitrification in a cascade CSTR system fed with municipal wastewater" [Oct. 2008]
- <u>Vassilios Tsintavis</u> and <u>Vassilia Panoutsou</u> "Production of bioplastics from olive mill wastewater" [Oct. 2008]
- <u>Anastasia Voyiatzi</u> "Study of MSW landfill leachates treatment. The case of MSW landfill in Zakynthos Island" [Jan. 2009]
- 12. <u>Varvaki Eleni</u> and <u>Markos Farmakakis</u> "Biological treatment of tannery wastewaters" [Jan. 2009]
- <u>Panagiota Bourgou</u> and <u>Margarita Dareioti</u> "Biological nitrogen removal from municipal wastewaters by-passing nitrate production in a pilot-scale Sequencing Batch Reactor (SBR)" [Jan. 2009]
- Areti Psarrou and <u>Eleni Benetatou</u> "Anaerobic co-digestion of agroindustrial wastes : the case of olive mill wastewater-cheese whey mixture" [June 2009]
- **15.** <u>Thomas Themelis</u> and <u>Andreas-Ioannis Koulouthros</u> "Thermophilic anaerobic digestion of agroindustrial wastes" [Oct. 2009]
- <u>Dimitra Chatzikonstantinou</u> and <u>Vassilios Sfakianakis</u> "Anaerobic co-digestion of agroindustrial wastewaters" [Oct. 2009]
- <u>Anna Fragedaki</u> and <u>Sevasti-Sofia Manoli</u> "Production of carotenoids from the microalgae Dunaliella Salina" [May 2010]
- 18. Panagiotis Pappas "Anaerobic co-digestion of agroindustrial wastes" [Sep. 2010]
- **19.** <u>Gregory Stamatiou</u> "Characterization, chemical pretreatment and ensilaging of sweet sorghum (Sorghum bicolor L. Moench) for biofuel production" [Mar. 2011]
- **20.** <u>Maria Atzemi</u> and <u>Tomazina Sava</u> "Optimization and kinetics of the acidogenic phase for the exploitation of agroindustrial wastes" [Oct. 2011]
- <u>Maria Zakoura</u> "Effect of anaerobic digestion on the phenolic fraction of olive mill wastewaters" [Oct. 2011]
- 22. <u>Epameinondas Tsiligiannis</u> and <u>Vassilios Paparounis</u> "Biological and physicochemical treatment of MSW landfill leachates" [Feb. 2012]
- 23. <u>Constantinos Stavropoulos</u> and <u>Andreas Pikios</u> "Anaerobic co-digestion of agroindustrial wastes and sweet sorghum" [Feb. 2012]
- 24. <u>Anastasios Stoforos</u> and <u>Panagiotis Kouris</u> "Recovery of polyphenols and biogas production via anaerobic digestion of olive mill wastewaters" [Apr. 2012]
- 25. <u>Christina Resvani</u> and <u>Pantelitsa Perikleous</u> "Vermi-composting of agricultural residues and sludges" [July 2012]

- **26.** <u>Vassiliki Volioti</u> "Chemical and enzymatic pretreatment of the fermentable fraction of municipal solid wastes for production of biofuels" [Sep. 2012]
- 27. <u>Christina Liaskou</u> and <u>Panteleimon Liolios</u> "Experimental optimization of the anaerobic codigestion of agroindustrial wastes" [Oct. 2012]
- 28. <u>Vassilios Kozantos</u> and <u>Dimitrios Argyropoulos</u> "Effect of ozone on Greek raisins' ochratoxin" [completed]
- 29. <u>Marianthi Stamouli</u> "Valorization of the fermentable fraction of municipal solid wastes" [completed]
- **30.** <u>Eleni Bakagianni</u> and <u>Maria Kalogirou</u> "Kinetics of biological nitrogen removal from municipal wastewaters in a pilot-scale SBR" [completed]
- 31. <u>Eleni Tsintavi</u> and <u>Nefeli Pontillo</u> "Pretreatement of olive mill wastewaters (OMW) using ozone and anerobic diegestion of raw and pretreated OMW" [Feb. 2013]
- **32.** <u>Ifigenia Zachariou</u> "Enzymatic pretreatment of sweet sorghum (Sorghum bicolor (L.) Moench) for enhancing biofuels production" [Feb. 2013]
- **33.** <u>Dimitrios Bakoulis</u> "Technoeconomic analysis of a Material Recovery Facility (MRF) from MSW" [in progress]
- 34. <u>Dionyssios Sampaziotis</u> "Estimation of Biochemical Methane Potential (BMP) in mixtures of agroindustrial wastes" [Oct. 2013]
- **35.** <u>Athanassios Morogiannis</u> and <u>Constantinos Kritikos</u> "Physicochemical characterization of the fermentable fraction of municipal solid wastes and growth study of *Saccharomyces cerevisiae* (AXAZ-1) under aerobic and anaerobic conditions for bioethanol production" [Nov. 2013]
- **36.** <u>Sofia Korniliou</u> and <u>Danae Kokoli</u> "Experimental optimization of anaerobic co-digestion of cow manure with sweet sorghum" [Feb. 2013]
- 37. Vassiliki Toli "Anaerobic co-digestion of agroindustrial wastes with sweet sorghum" [May 2013]
- **38.** <u>Myrsini Sakarika</u> and <u>Eythymia Halakateva</u> "Valorization of expired dairy products through gaseous biofuels production" [Nov. 2013]
- Skourtanioti Evagelia-Myrto "Aerobic treatment of anaerobically pretreated agrowastes in an SBR bioreactor" [Mar. 2014]
- **40.** <u>Dimitrios Andreadakis</u> "Origin, impacts and treatment methods of hexavalent chromium in the aquatic environment" [Sept. 2014)

#### University of Patras / Department of Chemistry

**1.** <u>Aikaterini Vriza</u> "The effect of Solid-State Fermentation (SSF) of the solid fraction of olive mill wastewater, using white rot fungi, in structural and soluble substrate components" [Oct. 2016]

#### University of Patras / Department of Material Science

- <u>Constantina Kourmentza</u> "Development of an enhanced microbial culture for bioplastics production and mathematical modelling of its performance" [Feb 2005]
- 3. <u>Epameinondas Koutros</u> "Valorization of waste paper for biohydrogen production" [Oct. 2006]
- **4.** <u>*Paraskevas Katsinas*</u> "Production of bioplastics by a mixed microbial culture under alternating anaerobic-aerobic conditions" [Oct. 2006]
- 5. <u>Constantina Kounavi</u> "Production of bioplastics using mixed microbial cultures under substrate limiting conditions" [May 2007]
- 6. <u>Constantinos Dimopoulos</u> "Environmental impact assessment of a Materials Recovery Facility (MRF) for implementation of Life Cycle Assessment (LCA)" [July 2008]
- 7. <u>Alexandros Drikos</u> "Mechanical and chemical pretreatment of waste paper for biofuels production" [Jan. 2010]
- 8. <u>Ioannis Zafeiropoulos</u> "Characterization and pretreatment of the fermentative fraction of municipal solid wastes for bioethanol production" [Oct. 2010]

Co-supervision of 7 Ph.D., 5 M.S. and over 50 B.S. students with Prof. G. Lyberatos as postdoctoral researcher and contracted Lecturer in the Department of Chemical Engineering (University of Patras) during the period 1995-2003.

# SPONSORED RESEARCH (GRANTS & CONTRACTS)

Principal Investigator (PI) in the following Grants and Contracts :

- Project Title : "Fate and impact of bioplastics in the bioprocesses of anaerobic digestion and composting in the context of sustainable waste management (VALOPLAST)"
   Project duration : 2/2024 present
   Funding organization : Hellenic Foundation for Research and Innovation (H.F.R.I.)
   Call : Basic Research Financing (Horizontal support for all Sciences), National Recovery and Resilience Plan (Greece 2.0) ID 014943 (MIS: 5163923).
   Amount of grant : 399.400,00 €
- 2. Project Title : "ADRION Transnational Master in Renewable Energy ADRION TRAINEE" Ref. num.: ADRION1321 - Interreg V-B Adriatic Ionian (ERDF + IPA II) Project duration : 1/2023 - 9/2023 Funding organization : Interreg V-B Adriatic Ionian Transnational Cooperation Programme 2014-2020 "ADRION" (ERDF + IPA II) Call : Fifth Extraordinary call for proposals Amount of grant : € 935,750 (€ 152,850.60 as partner/ Coordinator)
- 3. Project Title : "Microalgae-based Digestate Valorization towards Sustainable Bioplastics Production - ALGAPLAS" Ref. num.: 04799 Project duration : 3/2022 - present Funding organization : Hellenic Foundation for Research and Innovation (H.F.R.I.) Call : 2<sup>nd</sup> Call for H.F.R.I. Research Projects to support Faculty Members and Researchers Amount of grant : € 174,000 (€ 174,000 as partner/ Coordinator)
- Project Title : "HEI Consortium Innovation and Entrepreneurship in the domains of Digital Transformation, Circular Economy and Sustainable Development PROMETHEUS" Ref. num.: 21797
   Project duration : 7/2021 9/2023
   Funding organization : EIT Manufacturing (HEI Initiative Innovation Capacity Building for Higher Education)
   Call : HEI Initiative Innovation Capacity Building for Higher Education
   Amount of grant : € 1,197,406.25 (€ 110,625.00 as partner)
- *Project Title*: "Isolation and cultivation of local phytoplankton species from lagoons with the ultimate goal of mass production of antimicrobial substances, fatty acids, pigments and antioxidants ALGAVISION"
   *Ref. num.*: T6YBP-00222/MIS 5048496
   *Project duration*: 10/2019 4/2023
   *Funding organization*: Ministry of Economy, Development and Tourism, O.P. Competitiveness, Entrepreneurship & Innovation 2014-2020
   *Call*: Special Actions "AQUACULTURE" "INDUSTRIAL MATERIALS" "OPEN INNOVATION IN CULTURE"'
   *Amount of grant*: € 199,946.92 (€ 46,135.00 as partner)
- 6. Project Title : "Production of phenolic compounds from microalgae and characterization of biomass residues for utilization in fish farms AlgaPHESH" Ref. num.: T6YBIT-00034/MIS 5045802 Project duration : 6/2019 – 8/2022 Funding organization : Ministry of Economy, Development and Tourism, O.P. Competitiveness, Entrepreneurship & Innovation 2014-2020

*Call :* Special Actions "AQUACULTURE" - "INDUSTRIAL MATERIALS" - "OPEN INNOVATION IN CULTURE"

Amount of grant : € 200,000.00 (€ 120,000.00 as Coordinator)

- Project Title : "Development of an innovative integrated system for estimating the biochemical methane potential (BMP) of different biomass sources Green.BMP"
   Ref. num.: T1EΔK-03148, MIS 5030958
   Project duration : 7/2018 1/2023
   Funding organization : Ministry of Economy, Development and Tourism, O.P. Competitiveness, Entrepreneurship & Innovation 2014-2020
   Call : 1<sup>st</sup> call RESEARCH-CREATE-INNOVATE
   Amount of grant : € 752,322.87 (€ 264,000.00 as partner)
- Project Title : "Research Infrastructure for the Valorization of Waste and Sustainable Management of Natural Resources INVALOR" Ref. num.: MIS 5002495 Project duration : 7/2021 – 9/2023 Funding organization : Ministry of Economy, Development and Tourism, O.P. Competitiveness, Entrepreneurship & Innovation Amount of grant : € 3,899,712.50 (€ 57,506.00 as partner)
- Project Title : "A network for joint valorization of material flows in tourist areas INVALOR 101" Ref. num.: BMP1/2.2/2131/2017 (MIS 5016108) Project duration : 9/2017 - 2/2023 Funding organization : Transnational Cooperation Programme Interreg V-B Balkan-Mediterranean 2014-2020 Call : BalkanMed - 1st Call for Project Proposals Amount of grant : € 789,860.27 (€ 137,091.18 as partner/Coordinator)
- 10. Project Title : "Upgrading of an olive kernel processing unit with the aim of producing high added value products SAFOOD" Ref. num.: DER6-0022691 Project duration : 1/2019 – 12/2021 Funding organization : Operational Program "Western Greece 2014-2020" Call : PDE0101B-4/Action 1.b.1.2-a4 "FINANCIAL SUPPORT OF RESEARCH DEVELOPMENT & INNOVATION PROJECTS IN THE PRIORITY SECTOR OF RIS3 "AGRINUTRITION" Amount of grant : € 349,999.80 (€ 70,000.00 as partner)
- 11. Project Title : "Integrated energy and environmental valorization of olive oil production by-products OLIVENERGY" Ref. num.: DER6-0021057 Project duration : 4/2019 – 12/2021 Funding organization : Operational Program "Western Greece 2014-2020" Call : PDE0101B-4/Action 1.b.1.2-a4 "FINANCIAL SUPPORT OF RESEARCH DEVELOPMENT & INNOVATION PROJECTS IN THE PRIORITY SECTOR OF RIS3 "AGRINUTRITION" Amount of grant : € 215,507.37 (€ 84,627.37 as partner)
- 12. Project Title : "Moving towards Life Cycle Thinking by integrating Advanced Waste Management Systems (Waste4Think)" Ref. num.: 688995 - Waste4Think - H2020-WASTE-2015-two-stage Project duration : 6/2016 - 2/2020 Funding organization : EU – Executive Agency for Small and Medium-sized Enterprises (EASME) Call : H2020-WASTE-2015-two-stage/ WASTE-6a-2015 Eco-innovative solutions Amount of grant : € 8,818,556.12 (€ 522,837.50 as partner)
- Project Title : "Development and demonstration of a hybrid CSP-biomass gasification boiler system (BIOSOL)"
   Ref. num.: ERANETMED\_ENERG-11-075 BIOSOL
   Project duration : 5/2016 10/2020
   Funding organization : EU –ERANET MED

Amount of grant : € 844,698.22 (€ 98,000 as partner)

- Project Title : "Maximizing the biogas producing potential of existing and operating anaerobic bioreactors (EXISTING)"
   Funding organization : Ministry of Education, Lifelong Learning and Religious Affairs/O.P.
   "Education and Lifelong Learning"/Action "Archimedes III: Support of research groups in TEI" Amount of grant : € 75,000 (€ 11,250 as partner)
- 15. Project Title : "Sustainable Management via Energy Exploitation of End-Of-Life DAIRy Products In CyprUS (DAIRIUS)" Ref. num.: LIFE10 ENV/CY/000721 Project duration : Feb. 2011 – Sep. 2015 Funding organization : EU - LIFE+ Environment Policy and Governance 2010 Amount of grant : € 1,426,840 (€ 380,000 as partner)
- Project Title : "Development of sustainable biogas strategies for integrated agroindustrial waste management (BIOGAIA)" Ref. num.: MIS Code : 902020 Project duration : Nov. 2011 – Nov. 2015 Funding organization : European Territorial Cooperation Programme Greece – Italy 2007-2013 Amount of grant : € 1,406,000 (€ 410,000 as partner) Additional role : Project Coordinator
- Project Title : "Development of novel environmentally added-value surfactants and esters by biotechnological processes from fats and oils waste streams (Bio-SURFEST)" Ref. num.: BSG-SME- Research for the benefit of SMEs No 286834 Project duration : Oct. 2011 Sep. 2013 Funding organization : EU FP7-SME-2011 Amount of grant : € 1,242,468 (€148,400 as partner)
- Project Title : "Mobile Integrated Sustainable System for Treatment of Organic Wastewater (MISSTOW)"
   Ref. num.: CIP-EIP-Eco-Innovation-2010 No 277241
   Project duration : Aug. 2011 Jul. 2014
   Funding organization : EU CIP-EIP-Eco-Innovation-2010
   Amount of grant : € 1,695,129 (€ 174,242 as partner)
- 19. Project Title : "Development of a simulator for the operation of a Wastewater Treatment Plant (BIOSIM)"
  Ref. num.: "Vouchers for SMEs" Code Num.: 28899470-01-000151
  Project duration : June 2011 Sep. 2011
  Funding organization : Ministry of Education, Lifelong Learning and Religious Affairs/O.P.
  "Competitiveness and Entrepreneurship"/Action "Vouchers for SMEs"
  Amount of grant : € 7,000
- 20. Project Title : "Preliminary design of a treatment plant for energy valorization of agroindustrial wastes (AGROGAS)"
   Ref. num.: "Vouchers for SMEs" Code Num.: 66728744-01-000180
   Project duration : Apr. 2011 July 2011
   Funding organization : Ministry of Education, Lifelong Learning and Religious Affairs/O.P.
   "Competitiveness and Entrepreneurship"/Action "Vouchers for SMEs"
   Amount of grant : € 7,000
- 21. Project Title : "Life Cycle Analysis of olive oil (LCAOLIVE)" Ref. num.: "Vouchers for SMEs" – Code Num.: 53839913-05-000201 Project duration : Apr. 2011 – July 2011 Funding organization : Ministry of Education, Lifelong Learning and Religious Affairs/O.P. "Competitiveness and Entrepreneurship"/Action "Vouchers for SMEs" Amount of grant : € 7,000
- 22. Project Title : "Integrated management of agroindustrial wastes and plant biomass"

Ref. num.: 12 / 121 / 4 Project duration : Sep. 2010 – Aug. 2013 Funding organization : : Ministry of Education, Lifelong Learning and Religious Affairs/O.P. "Education and Lifelong Learning" of the National Strategic Reference Framework (NSRF) -Research Funding Program: Heracleitus II. Investing in knowledge society through the European Social Fund. Amount of grant : € 45,000

23. Project Title : "Valorization of the organic fraction of municipal solid wastes for biofuels production"

Ref. num.: 12 / 122 / 4 Project duration : Sep. 2010 – Aug. 2013

Funding organization : : Ministry of Education, Lifelong Learning and Religious Affairs/O.P. "Education and Lifelong Learning" of the National Strategic Reference Framework (NSRF) -Research Funding Program: Heracleitus II. Investing in knowledge society through the European Social Fund.

Amount of grant : € 45,000

- 24. Project Title : "Development of integrated agroindustrial waste management politics maximizing materials recovery and energy exploitation (INTEGRASTE)" Ref. num.: LIFE+08 ENV/GR/000578 Project duration : Jan 2010 Sep 2013 Funding organization : EU LIFE+ Environment Policy and Governance 2008 Amount of grant : € 1,156,325 (€ 338,725 as partner)
- 25. Project Title : "Increasing the regional competitiveness and economic growth through the R&TD&I on sustainable water management (SWAM)" Ref. num.: 245427 – SWAM (CSA – CA) Project duration : Mar 2010 – Jun 2012 Funding organization : EU - FP7-REGIONS-2009-1 Amount of grant : € 1,310,131 (€ 58,744 as partner)
- Project Title : "Exploitation of agroindustrial wastes for production of bioplastics" Ref. num.: Programm "Karatheodoris" Project duration : May 2007 – April 2010 Funding organization : University of Patras Amount of grant : € 24,000
- 27. Project Title : "Environmental security enhancement through a novel process for nitrogen removal from wastewater"
  Ref. num.: NATO TC EAP SfP No 982816
  Project duration : Oct. 2007 Sep. 2010
  Funding organization : NATO Science for Peace
  Amount of grant : € 300,000 (€ 22,000 as partner)
- 28. Project Title : "Integrated management of agroindustrial wastewaters in the cross-boundary Greek-Italian region (AGROENERGY)" Ref. num.: Code No I3101004 Project duration : Dec 2006 – Dec 2008 Funding organization : INTERREG III A/ Greece-Italy, 2000-2006 Amount of grant : € 915,000 (€ 387,000 as partner)
- 29. Project Title : "Realization of Tools for Water Resources Management and Protection of Marine Coastal Ecosystems (GoW)"
   Ref. num.: Code No I3101024
   Project duration : Dec 2006 Sept 2008
   Funding organization : INTERREG III A/ Greece-Italy, 2000-2006
   Amount of grant : € 945,772 (€ 249,300 as partner)

- 30. Project Title : "Olive Mills: Actions for popularization and dissemination of innovative and previously existing scientific and technical knowledge regarding environmentally friendly methods for their wastewater treatment (POPULAR)" Ref. num.: Code No I3101022 Project duration : Nov 2006 – Sept 2008 Funding organization : INTERREG III A/ Greece-Italy, 2000-2006 Amount of grant : € 473,148 (€ 37,958 as partner)
- 31. Project Title : "Biotechnological Exploitation of Uzbek Saline Water Reserves using Halotolerant Microalgae" Ref. num.: NATO/ESP.EAP.SFP - No 981690 Project duration : Oct 2006 – Sep 2009 Funding organization : NATO – Science for Peace Amount of grant : € 288,000 (€ 32,000 as partner) Additional role : Project Coordinator
- 32. Project Title : "Phytoremedation of sites contaminated with heavy metals" Ref. num.: Collaborative Linkage Grant – No 980493 Project duration : Jan 2004 – Jan 2006 Funding organization : NATO - Collaborative Linkage Grant Amount of grant : € 15,400 (€ 3,652 as partner)
- 33. Project Title : "Preservation and treatment of Greek raisins using ozone" Ref. num.: Program "PAVET 2005" – 05 PAV 205 Project duration : Jul. 2006 – Dec. 2007 Funding organization : General Secretariat of Research & Technology (GSRT)/ Ministry of Development – Program "PAVET 2005" Amount of grant : € 204,000 (€ 61,300 as partner)
- Project Title : "Optimization of performance of the wastewater treatment plant in HELLENIC TANNERIES S.A."
   Project duration : Oct. 2006 Jul. 2007
   Funding organization : HELLENIC TANNERIES S.A.
   Amount of grant : € 12,000
- 35. Project Title : "Biological nitrogen removal via nitrite in continuous operating wastewater treatment systems"
   Project duration : Apr. 2004 Dec. 2007
   Funding organization : European Social Fund (ESF) and Operational Program for Educational and Vocational Training II (EPEAEK II)/ Ministry of National Education and Religious Affairs Program "Pythagoras I"
   Amount of grant : € 80,000
- 36. Project Title : "Optimization and control of nitrogen removal from municipal wastewaters" Project duration : Dec. 2002 – Dec. 2007 Funding organization : European Social Fund (ESF) and Operational Program for Educational and Vocational Training II (EPEAEK II)/ Ministry of National Education and Religious Affairs - Program "Heracleitus" Amount of grant : € 35,514
- Project Title : "Investigation of the Best Available Technology for the treatment of municipal solid wastes in the Region of Western Greece"
   Project duration : Sep. 2005 May 2006
   Funding organization : Regional Operational Programme Western Greece 2000 2006
   Amount of grant : € 80,000 (€ 30,000 as partner)
- Project Title : "Development of an Informational System for the integrated management of water resources of Aroanios River and its pilot application in Selitsa (Prefecture of Achaia)" Project duration : Jun. 2004 Dec. 2007
   Funding organization : Regional Operational Programme Western Greece 2000 2006
   Amount of grant : € 100,000 (€ 67,800 as partner)

- 39. Project Title : "Exploitation, promotion and protection of NATURA 2000 protected areas in the municipality of Aroania (Prefecture of Achaia)"
   Project duration : Sep. 2004 Dec. 2007
   Funding organization : Operational Program Community Initiative LEADER+ (2000-2006)
   Amount of grant : € 60,062 (€ 16,992 as partner)
- Project Title : "Toxicity Assessment in biologically treated agro-industrial wastewaters using bio-indicators"
   Project duration : Jan. 2006 Dec. 2008
   Funding organization : General Secretariat of Research & Technology (GSRT)/ Ministry of Development Program "PENED 2003"

Amount of grant : € 154,800 (€ 30,000 as partner)

Participation as senior researcher in the following projects :

- Project Title :"Integrated Biological Treatment and Agricultural Reuse of Olive mill Effluents with the Concurrent Recovery of Energy Sources (BIOTROLL)" Ref. num.: QLK5-CT-2002-02344 Project duration :Jan. 2003 to June 2006 Funding organization : EU - Quality of Life programme Amount of grant : € 404,055 (Project Coordinator prof. G. Lyberatos)
- 2. Project Title : "Ecotoxicological Assessments and Removal Technologies for Pharmaceuticals in Wastewaters (REMPHARMAWATER)" Ref. num.: EVK1-CT-2000-00048 Project duration : Dec. 2000 - Nov. 2003 Funding organization : EU - Energy, Environment and Sustainable Development Amount of grant : € 249,280 (Project Coordinator prof. G. Lyberatos)
- Project Title : "Bioprocessing of Sewage Sludge for Safe Recycling on Agricultural Land (BIOWASTE)"
   Ref. num.: QLKS-CT2002-01138
   Project duration : Oct. 2002 to Sep. 2005
   Funding organization : EU Quality of Life programme
   Amount of grant : € 287,810 (Project Coordinator prof. G. Lyberatos)
- Project Title : "Innovation in the Process of Cork Production for Elimination of Odours Responsible for Cork Taint (INNOCUOUS)" Ref. num.: QLRT-2001-01678 Project duration : Jan. 2003 – Dec. 2005 Funding organization : EU - Quality of Life and Management of Living Resources Programme Amount of grant : € 216,012 (Project Coordinator prof. G. Lyberatos)
- 5. Project Title : "Production of polyhydroxyalkanoates from olive oil mills wastewater (POLYVER)" Ref. num.: COOP-CT-2006-032967 Project duration : Sep. 2006 – Dec. 2008 Funding organization : EU - HORIZONTAL RESEARCH ACTIVITIES INVOLVING SMEs - CO-OPERATIVE RESEARCH Amount of grant : € 125,660 (Project Coordinator prof. G. Lyberatos)
- 6. Project Title : "Biological treatment and valorization of olive mill wastewaters : mechanisms and integrated technological applications" *Ref. num.*: GSRT – FP66 *Project duration* : Oct. 2003 – Dec. 2008 *Funding organization* : General Secretariat of Research & Technology (GSRT)/ Ministry of Development – Program "Clusters of Research and Technological Development in National Priority Sectors" *Amount of grant* : € 120,706 (Project Coordinator prof. G. Lyberatos)
- **7.** *Project Title :* "Starting fund for the development of a reactor prototype for biological nitrogen removal from municipal wastewater via nitrite"

Ref. num.: GSRT-02 PRAXE 210 Project duration : Dec. 2003 – June 2005 Funding organization : General Secretariat of Research & Technology (GSRT)/ Ministry of Development – Program "PRAXE: Support of research teams for prototyping and commercial exploitation of research results. Identification and exploitation of research results through the development of spin-off companies – phase A' " Amount of grant : € 44,000 (Project Coordinator prof. G. Lyberatos)

 Project Title : "Biological hydrogen production using the energy crop sweet sorghum" Ref. num.: Project duration : May 2003 – Nov. 2006 Funding organization : General Secretariat of Research & Technology (GSRT)/ Ministry of Development – Program "PENED 2002" Amount of grant : € 132,060 (Project Coordinator prof. G. Lyberatos)

Participation as senior researcher in other 18 national and European projects during the period 1991-2001.

# **PUBLICATIONS**

THESES & BOOKS

- "Kinetics of growth of the denitrifying bacterium *Pseudomonas denitrificans* and optimization of denitrification processes".
   Department of Chemical Engineering – University of Patras.
   <u>Ph.D. Thesis</u>. September 1995 (Advisor: G. Lyberatos)
- "Theoretical and experimental study of the macroscopic behaviour of deep bed filtration systems and their technoeconomical optimization"
   Department of Chemical Engineering University of Patras.
   <u>Diploma Thesis</u>. June 1989 (Advisor: A. Ch. Payatakes)
- **3.** Contribution in chapter "Pyrolysis and Gasification" in the book "Solid Waste Management", G. Lyberatos and C. Tsiliyannis, University of Patras' Publications, 1998.
- **4.** "Materials and Environment", Department of Materials Science, University of Patras, University of Patras' Publications, 2003.
- 5. «Laboratory Exercises for the course "Materials and Environment"», Department of Materials Science, University of Patras, University of Patras' Publications, 2004.
- 6. Lyberatos G., Gavala H., Skiadas I., Kornaros M., Stamatelatou K. and Angelopoulos K. "Biological production of hydrogen from waste and biomass", chapter 21 in the book *"Resource Recovery and Reuse in Organic Solid Waste Management"*, eds. P. Lens, B. Hamelers, H. Hoitink and W. Bidlingmaier, IWA Publishing, p.441-454, London, UK, 2004.
- 7. Vlachos P., Kampioti A., Kornaros M.\* and Lyberatos G.\* "Development of novel processes for sterilization and deodorization of natural cork stoppers", chapter in the book 'Advances on Bioprocessing in Food Industries', Ed. A. Koutinas, ASIA Tech PUBLISHERS, New Delhi, 2007.
- Kourmentza C., Koutra E., Venetsaneas N., Kornaros M. "Integrated Biorefinery Approach for the Valorization of Olive Mill Waste Streams Towards Sustainable Biofuels and Bio-Based Products" in Kalia V.C. and Kumar P. (eds.) 'Microbial Applications' Vol. 1, Integrative Biotechnology Book Series, Springer, Cham, 2017, 211-238 (doi: 10.1007/978-3-319-52666-9\_10).
- Koutra E., Tsafrakidou P., Sakarika M. and Kornaros M.\* "Microalgal Biorefinery", Chapter 11 in A. Yousuf (Ed.) "Microalgae Cultivation for Biofuels Production", Elsevier, 2019, p.163-185 (doi: 10.1016/B978-0-12-817536-1.00011-4)
- Sakarika M., Koutra E., Tsafrakidou P., Terpou A. and Kornaros M.\* "Microalgae-based Remediation of Wastewaters", Chapter 20 in A. Yousuf (Ed.) "Microalgae Cultivation for Biofuels Production", Elsevier, 2019, p.317-335 (doi: 10.1016/B978-0-12-817536-1.00020-5)
- **11.** Philippou K., Anastopoulos I., Pashalidis I., Hosseini-Bandegharaei A., Usman M., **Kornaros M.**, Omirou M., Kalderis D., Milojković J.V., Lopičić Z.R., Abatal M. "The application of pine-based adsorbents to remove potentially toxic elements from aqueous solutions", Chapter 6 in A.

Núñez-Delgado (Ed.) "Sorbents materials for controlling environmental pollution: current state and trends", Elsevier Inc., 2021 p.113-133 (doi: 10.1016/B978-0-12-820042-1.00016-X).

- Koutra E., Papavasileiou P., Andriopoulos V., Mastropetros S.G. and Kornaros M.\* "Bioactive compounds from microalgae cultivated in wastewaters", Chapter 9 in Maulin Shah, Susana Rodriguez-Couto, Celia Bertha Vargas De La Cruz, Jayanta Biswas (Eds.) "An Integration of Phycoremediation Processes in Wastewater Treatment", Elsevier Inc., Amsterdam, Netherlands, 2021, p. 177-202 (doi:10.1016/B978-0-12-823499-0.00009-2)
- Sakarika M., Koutra E., Mastropetros S.G., Giannakopoulos S. and Kornaros M.\* "Wastewater treatment coupled to algal biomass production" Chapter 10 in Maulin Shah, Susana Rodriguez-Couto, Celia Bertha Vargas De La Cruz, Jayanta Biswas (Eds.) "An Integration of Phycoremediation Processes in Wastewater Treatment", Elsevier Inc., Amsterdam, Netherlands, 2021, p. 203-230 (doi: 10.1016/B978-0-12-823499-0.00020-1)
- Ali S.S., Darwesh O.M., Kornaros M., Al-Tohamy R., Manni A., El-Shanshoury A.E.-R.R., Metwally M.A., Elsamahy T., and Sun J. "Nano-biofertilizers: Synthesis, advantages, and applications", Chapter 27 in Rakshit A., Meena V.S., Parihar M., Singh H.B., Singh A.K. (Eds) "Biofertilizers: Volume 1: Advances in Bio-inoculants", Woodhead Publishing (imprint of Elsevier Inc.), 2021, p. 359-370 (doi:10.1016/B978-0-12-821667-5.00007-5)
- Ali S.S., Kornaros M., Manni A., Al-Tohamy R., El-Shanshoury A.E.-R.R., Matter I.M., Elsamahy T., Sobhy M., and Sun J. "Advances in microorganisms-based biofertilizers: Major mechanisms and applications", Chapter 28 in Rakshit A., Meena V.S., Parihar M., Singh H.B., Singh A.K. (Eds) "Biofertilizers: Volume 1: Advances in Bio-inoculants", Woodhead Publishing (imprint of Elsevier Inc.), 2021, p. 371-385 (doi:10.1016/B978-0-12-821667-5.00023-3)
- 16. Ali S., Dar M.A., El-Sheekh M., Elsamahy T., Abdelfattah A., Abdelkarim E., Pispas K., Mastropetros S.G., Zagklis D., Kornaros M. and Sun J. "Microalgae as a Renewable Resource for Bioplastic Production" Chapter 19 in El-Sheekh M.M., Abdullah N. and Ahmad I. (Eds) "Handbook of Research on Algae as a Sustainable Solution for Food, Energy, and the Environment", IGI Global, Hershey, Pennsylvania, USA, 2022, p.471-500 (doi:10.4018/978-1-6684-2438-4.ch019)
- Abdelfattah A., Dar M.A., Ramadan H., El-Aswar E.I., Eltawab R., Abdelkarim E., Elsamahy T., Kornaros M., Ali S., Cheng L. "Exploring the Potential of Algae in the Mitigation of Plastic Pollution in Aquatic Environments" Chapter 20 in El-Sheekh M.M., Abdullah N. and Ahmad I. (Eds) "Handbook of Research on Algae as a Sustainable Solution for Food, Energy, and the Environment", IGI Global, Hershey, Pennsylvania, USA, 2022, p. 501-523 (doi:10.4018/978-1-6684-2438-4.ch020)
- Mastropetros S.G., Pispas K., Zagklis D., Elsamahy T., Ali S., Sun J. and Kornaros M. "Microalgae as a Renewable Resource for Bioplastic Production" Chapter 24 in El-Sheekh M.M., Abdullah N. and Ahmad I. (Eds) "Handbook of Research on Algae as a Sustainable Solution for Food, Energy, and the Environment", IGI Global, Hershey, Pennsylvania, USA, 2022, p. 585-609 (doi:10.4018/978-1-6684-2438-4.ch024)
- Koutra E., Zagklis D.P., Tsigkou K., Ali S.S. and Kornaros M.\* "Valorization of microalgal biomass for biofuels" Chapter 5 in Suhaib A. Bandh and Fayaz A. Malla (Eds) "Valorisation of Microalgal Biomass and Wastewater Treatment" (ISBN: 978-0-323-91869-5), Elsevier Inc., Amsterdam, Netherlands, 2023, p. 53-80 (doi:10.1016/B978-0-323-91869-5.00011-9)
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- **72.** Blika P.S., Stamatelatou K., **Kornaros M.**, G. Lyberatos "Anaerobic digestion of olive mill wastewater" oral presentation to the *Protection and Restoration of the Environment IX*, 29 June 3 July 2008, Kefalonia, Greece.
- **73.** Dareioti M.A., Dokianakis S.N., Stamatelatou K., Zafiri C. and **Kornaros M.\*** "Integrated management of agroindustrial wastewaters in the cross-border Greek-Italian region AGROENERGY. INTERREG IIIA / GREECE ITALY 2000-2006" poster presentation to the *Protection and Restoration of the Environment IX*, 29 June 3 July 2008, Kefalonia, Greece.
- **74.** Marazioti C.E., Koza S., **Kornaros M.\***, "Life Cycle Assessment of two municipal WWTP configurations : oxidation ditch versus a 26-CSTR cascade system" oral presentation to the *Protection and Restoration of the Environment IX*, 29 June 3 July 2008, Kefalonia, Greece.
- **75.** Dareioti M.A., Dokianakis S.N., Stamatelatou K., Zafiri C. and **Kornaros M.\*** "Exploitation of olive mill and dairy wastewater for biogas production through anaerobic co-digestion" oral presentation to the *Second International Symposium on Energy from Biomass and Waste*, Venice 2008, Venice, Italy, 17 20 November, 2008.

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- 78. Marazioti C.E., Flessia G., Vlachos P., Koutrouli E., Ntaikou I., Antonopoulou G., Pakou C., Kalfas C., Kornaros M. and Lyberatos G., "On the Environmental State of the Mesologgi lagoon in Greece", poster presentation at the 8<sup>th</sup> International Scientific Conference Sakharov Readings 2008: Environmental Problems of the XXIth Century, 22-23 May, 2008, Minsk, Republic of Belarus.
- 79. G. Papatheodorou, E. Fakiris, M. Geraga, M. Patsourakis, A. Koutsodendris, G. Ferentinos, S. Kiparissis, A. Kapareliotis, M. Kornaros, C. Zafiri and D. Rallatos "Mapping of *Posidonia Oceanica* meadows using side scan sonar and ground trouthing techniques" oral presentation to the 33<sup>rd</sup> IGC International Geological Congress, Oslo, Norway, 6-14 August, 2008.
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- **81.** Kourmentza C., Ntaikou I., **Kornaros M.\*** "Investigation of PHAs production from acidified olive oil mill wastewater (OOMW) by pure cultures of *Pseudomonas* sp. strains" poster presentation to the 14<sup>th</sup> European Congress on Biotechnology, 13-16 September 2009, Barcelona, Spain.
- **82.** Marazioti C., **Kornaros M.** and Lyberatos G. "A novel SBR system for biological nutrient removal" oral presentation to the *IWA International Conference: "Balkans Regional Young Water Professionals"*, Belgrade Serbia, 29-30 April 2010.
- 83. Kourmentza C., Vartzeli M., Ntaikou I., Kornaros M.\* "Exploitation of olive oil mill wastewater for biopolymer (PHAs) production using an enriched microbial culture" oral presentation to the 7<sup>th</sup> International Conference ORBIT 2010 : Organic Resources in the Carbon Economy, June 29 July 3 2010, Heraklion, Crete, Greece.
- 84. Skagia A., E. Mitova E., Ntaikou I., M. Kornaros "Investigation of carotenoids production from Dunaliella tertiolecta: effect of carbon source and environmental stress on growth and production of photosynthetic pigments" oral presentation to the Second International Symposium on Green Chemistry for Environment and Health, September 27-29, 2010, Mykonos, Greece.
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- **86.** Danellakis D., **Kornaros M.**, Ntaikou I. and Dailianis S.\* "Olive oil mill wastewater toxicity in the marine environment: alterations of stress-indices in tissues of mussel *Mytilus galloprovincialis*" oral presentation to the *Second International Symposium on Green Chemistry for Environment and Health*, September 27-29, 2010, Mykonos, Greece.
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- 88. C.V. Chrysikopoulos, I.D. Manariotis, V. Sygouni, A. Vantarakis, A. Argiriou, H.K. Karapanagioti, J. Vakros, M. Kornaros, C.A. Paraskeva, and S. Dailianis "Interuniversity Network For Biocolloid Fate And Transport In Environmental Systems "BIOMET" oral presentation to the *Protection and Restoration of the Environment X* -PRE10, 5-9 July 2010, Corfu, Greece.
- 89. Ntaikou I., Senkevich S., Koutros E., Kornaros M. and Lyberatos G. "On the exploitation of lignocellulosic biomass for biohydrogen production using the bacterium *Ruminococcus albus*"

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- **91.** Vavouraki A., Dareioti M. and **Kornaros M**\*"An experimental ensilaging procedure and chemical pretreatment of *Sweet Sorghum* stalks for enhancing biofuels production" oral presentation to the *Thirteenth International Waste Management and Landfill Symposium* Sardinia 2011, Cagliari, Sardinia, Italy, 3 7 October 2011.
- 92. Angelis E., Vavouraki A. and Kornaros M\* "Pretreatment of the organic fraction of municipal solid wastes (ofmsw) for biofuel production", oral presentation to the *Thirteenth International Waste Management and Landfill Symposium* (Sardinia 2011), Cagliari, Sardinia, Italy, 3 7 October 2011.
- **93.** Dareioti M., Vavouraki A. and **Kornaros M\*** "Effect of pH on the anaerobic acidogenesis of agroindustrial wastewaters for maximizing bio-hydrogen production" poster presentation to the *Thirteenth International Waste Management and Landfill Symposium* (Sardinia 2011), Cagliari, Sardinia, Italy, 3 7 October 2011.
- **94.** Vavouraki A., Dareioti M. and **Kornaros M** "Vermi-conversion of anaerobic sludges by *Eisenia* foetida earthworms" oral presentation to *IWA Regional Conference on Wastewater Purification* & *Reuse (WWPR2012)*, Heraklion, Crete, Greece, March 28-30, 2012.
- 95. Vavouraki A., Dareioti M. and Kornaros M "Polyphenols recovery and methane production from olive mill wastewater (OMW) in batch anaerobic methanogenesis" poster presentation to WasteEng 2012: 4th International Conference on Engineering for Waste and Biomass Valorisation, Porto, Portugal, September 10 13, 2012.
- **96.** Kourmentza C. and **Kornaros M.\*** "Polyhydroxyalkanoates (PHAs) production from bacteria belonging to *Pseudomonas* genus using both synthetic and olive oil mill wastewater" oral presentation to *WasteEng 2012: 4th International Conference on Engineering for Waste and Biomass Valorisation,* Porto, Portugal, September 10 − 13, 2012.
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- 98. Kourmentza C. and Kornaros M.\* "Polyhydroxyalkanoates production from an 'enriched' mixed culture using volatile fatty acids: effect of different C/N ratios" oral presentation to the 15<sup>th</sup> European Congress on Biotechnology "Bio-crossroads", 23-26 September 2012, Istanbul, Turkey.
- **99.** Dareioti M., Stavropoulos K., Vavouraki A., **Kornaros M** "Effective biohydrogen production from a mixture of agroindustrial wastes and sweet sorghum stalks" oral presentation to the *Fourth International Symposium on Energy From Biomass and Waste (VENICE 2012)*, San Servolo, Venice (Italy), 12-15 November, 2012.
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- 101. Dareioti M., Vavouraki A., Kornaros M "Assessment of methane production from typical Western Greece agro-industrial wastes" submitted for oral presentation to the 13<sup>th</sup> International Conference on Environmental Science and Technology (CEST2013), Athens (Greece), 5-7 September 2013.
- 102. Pontillo N., Tsintavi E., Dareioti M.A., Tsarpali V., Dailianis S., Kornaros M. "Ozone pretreatment of olive mill wastewaters (OMW) coupled with anaerobic digestion" oral presentation to the 13th World Congress on Anaerobic Digestion: Recovering (bio) Resources for the World, Santiago de Compostela (Spain), 25-28 June, 2013.

- 103. Zakoura M., Kopsahelis A. and Kornaros M. "Assessing the performance of high-rate anaerobic reactors treating three-phase olive mill wastewater (OMW)" oral presentation to the 13th World Congress on Anaerobic Digestion: Recovering (bio) Resources for the World, Santiago de Compostela (Spain), 25-28 June, 2013.
- 104. Dareioti M.A. and Kornaros M. "A comparative study on methanogenesis of agrowastes mixtures: Effect of substrate type and initial concentration" poster presentation to the 13th World Congress on Anaerobic Digestion: Recovering (bio) Resources for the World, Santiago de Compostela (Spain), 25-28 June, 2013.
- 105. Dareioti M.A. and Kornaros M\* "Effect of Hydraulic Retention Time (HRT) on the anaerobic codigestion of ensiled sorghum, cheese whey and liquid cow manure in a two-stage CSTR system" oral presentation to the 5<sup>th</sup> International Conference on Engineering for Waste and Biomass Valorisation (WasteEng14), Rio de Janeiro, Brazil, 24–28 August 2014.
- 106. Stavropoulos K.P., Kopsahelis A., Zafiri C. and Kornaros M\* "Valorization of end-of-life dairy products via co-digestion with agroindustrial wastes for biogas production" oral presentation to the 5<sup>th</sup> International Conference on Engineering for Waste and Biomass Valorisation (WasteEng14), Rio de Janeiro, Brazil, 24–28 August 2014.
- **107.** Kopsahelis A., Zafiri C. and **Kornaros M.\*** "Gate-to-gate LCA analysis of biosurfactants and bioplasticizers production via biotechnological exploitation of fats and waste oils" poster presentation to the *V International Symposium on Energy from Biomass and Waste (VENICE 2014),* Island of San Servolo, Venice, Italy. 17-20 November 2014.
- 108. Vgenis T.T., Kopsahelis A., Dareioti M.A., Zafiri C., Kornaros M.\* and Manios T. "Anaerobic codigestion of waste activated sludge with olive mill wastewater or cheese whey" oral presentation to the V International Symposium on Energy from Biomass and Waste (VENICE 2014), Island of San Servolo, Venice, Italy, 17-20 November 2014.
- **109.** Dareioti M.A., Vgenis T.T., Vavouraki A. and **Kornaros M.\*** "Anaerobic biodegradability of typical organic agro-wastes in Western Greece" oral presentation to the 2<sup>nd</sup> International Conference on Sustainable Solid Waste Management (ATHENS2014), Athens, Greece, 12-14 June 2014.
- 110. Tsigkou K., Kotoulas A., Kopsahelis A. and Kornaros M\* "Development of a high-rate thermophilic anaerobic UPBR reactor for the treatment of three-phase olive mill wastewater (OMW)" oral presentation to the International Conference on Industrial Waste & Wastewater Treatment & Valorization (IWWATV), Athens, Greece, 21-23 May 2015.
- 111. Stavropoulos K.P., Kopsahelis A., Zafiri C. and Kornaros M\* "Life Cycle Assessment (LCA) of Endof-Life Dairy Products' (EoL-DPs) management in Cyprus, via their energetic valorization through anaerobic co-digestion with agro-industrial wastes" oral presentation to the International Conference on Industrial Waste & Wastewater Treatment & Valorization (IWWATV), Athens, Greece, 21-23 May 2015.
- 112. Stavropoulos K.P. and Kornaros M\* "Effect of pH on continuous biohydrogen production from a mixture of End-of-Life Dairy Products (EoL-DPs)" oral presentation to the 3<sup>rd</sup> International Conference on Sustainable Solid Waste Management (TINOS2015), Tinos island, Greece, 2–4 July 2015.
- 113. Koutra E., Kopsahelis A., Zafiri C., Kornaros M., Kadena, K., Bratskas, R., Anagnostopoulos, T., Nitodas, S. and Lopez, J.A. "DELOS: an e-learning training platform for the operation and management of biogas production plants" poster presentation to the 3<sup>rd</sup> International Conference on Sustainable Solid Waste Management (TINOS2015), Tinos island, Greece, 2–4 July 2015.
- **114.** Papoulis D., Koutra E., **Kornaros M.**, Rapsomanikis A., Panagiotaras D. and Stathatos E. "Antimicrobial activity of Ag-treated clay-based nano-composites", oral presentation to the *Euroclay 2015*, Edinburgh, Scotland, 5-10 July 2015.
- **115.** Andreadakis D., **Kornaros M.**, Gavalakis E. and Andreadakis A.\* "Health and environmental effects of hexavalent chromium and evolution of relevant legislation" oral presentation to the

14<sup>th</sup> International Conference on Environmental Science and Technology, CEST2015, Rhodes, Greece, 3-5 September 2015.

- 116. Koutra E., Grammatikopoulos G., Kornaros M. "Probing the photosynthetic efficiency of green microalgae used for bioremediation and valorization of anaerobic digestion effluents" poster presentation to the International Meeting "Photosynthesis Research for Sustainability-2015" in honor of George C. Papageorgiou, Crete, Greece, 21-26 September 2015.
- 117. Tsigkou K., Stavropoulos K., Kopsahelis A., Zafiri C., Kornaros M.\* "Anaerobic co-digestion of End-of-Life dairy products with agroindustrial wastes in a mesophilic pilot-scale two-stage digester – Assessment of system performance" poster presentation to the *New Horizons in Biotechnology*, Trivandrum, India, 22-25 November 2015.
- **118.** Tsigkou K., Kopsahelis A., **Kornaros M.\*** "Hydrodynamic performance of a high-rate upflow packed bed anaerobic bioreactor" poster presentation to the *International Conference on Advances in Bioprocess Technology*, Tiruvalla, Kerala, India, 26-28 November 2015.
- **119.** Charmpi K., Makridis P., **Kornaros M.** and Dailianis S. "Application of a battery of bioassays for assessing the effects of MWTP effluents on the aquatic biota" oral presentation to the *SETAC Europe 26<sup>th</sup> Annual Meeting*, Nantes, France, 22-26 May 2016.
- 120. Kopsahelis A., Zafiri C., Kornaros M.\* "High-rate anaerobic digestion of three-phase Olive Mill Wastewater (OMW) in a two-stage anaerobic filter" oral presentation to the 6<sup>th</sup> International Symposium on Energy from Biomass and Waste (VENICE 2016), Scuola Grande di San Giovanni Evangelista, Venice, Italy, 14-17 November 2016.
- **121.** Koutra E., Grammatikopoulos G., **Kornaros M.\*** "Growth of green microalgae in anaerobic digestion effluent for nutrient recovery and lipids production" oral presentation to the 6<sup>th</sup> *International Symposium on Energy from Biomass and Waste (VENICE 2016),* Scuola Grande di San Giovanni Evangelista, Venice, Italy, 14-17 November 2016.
- **122.** Tsigkou K., Tsafrakidou P., Zafiri C., **Kornaros M.\*** "Pretreatment of disposable nappies towards valorization of the fermentable fraction through anaerobic digestion" oral presentation to the *ATHENS 2017 5<sup>th</sup> International Conference on Sustainable Solid Waste Management*, Athens, Greece, 21-24 June 2017.
- 123. Papadopoulou K., Lyberatos G., Merino Lizarraga J., López Torre I., Ibarra M., Zafeiri N., Lytras C., Kornaros M., Egenfeldt-Nielsen S., Giavini M., Mariani R., Colombo S., Drosi G., Schmidt A., Dinis J., Vila M., Andriani P., Arambarri J., Melanitou E., Niakas S. and Alonso-Vicario A. "Moving towards Life Cycle Thinking by integrating Advanced Waste Management Systems: WASTE4THINK" oral presentation to the ATHENS 2017 5<sup>th</sup> International Conference on Sustainable Solid Waste Management, Athens, Greece, 21-24 June 2017.
- 124. Genethliou C., Dailianis S. and Kornaros M.\* "Biodegradation of olive mill wastewater phenolic compounds in thermophilic anaerobic digestion and their toxicity in digested effluent" poster presentation to the 6<sup>th</sup> International Conference on Environmental Management, Engineering, Planning and Economics (CEMEPE) & SECOTOX Conference, 25-30 June 2017, Thessaloniki, Greece.
- **125.** Sakarika M. and **Kornaros M.\*** "Potential for nutrient sequestration and biofuel production through heterotrophic cultivation of the microalga *Chlorella vulgaris*" poster presentation in the *MELiSSA Mini-symposium & Master Class: Science and Technology for Bioregenerative Life Support*, Antwerp, Belgium, 30 March 2017.
- **126.** Papadopoulou K., Alonso-Vicario A., Niakas S., Melanitou E., Lytras C., **Kornaros M.**, Zafiri C., Lyberatos G., "Life Cycle thinking, the key for a Circular Economy: the Municipality of Halandri case" oral presentation in the 15<sup>th</sup> International Conference on Environmental Science and Technology, Rhodes, Greece, 31 August 2 September 2017.
- 127. Tsigkou K., Tsafrakidou P., Athanasopoulou S., Zafiri C. and Kornaros M.\* "Effect of pH on the anaerobic fermentation of fruit/vegetables and disposable nappies hydrolysate for bio-hydrogen production" oral presentation in the 7<sup>th</sup> International Conference on Engineering for Waste and Biomass Valorisation (WasteEng18), Prague, Czech Republic, 2-5 July 2018.

- **128.** Vavouraki A.I. \*, Zakoura M.V., Dareioti M.A. and **Kornaros M.** "Biodegradation of phenolic compounds from olive mill wastewaters (OMW) during two-stage anaerobic co-digestion of agroindustrial mixtures" oral presentation in the 6<sup>th</sup> International Conference on Industrial and Hazardous Waste Management (CRETE2018), Chania, Greece, 4-7 September 2018.
- 129. Tsigkou K., Tsafrakidou P., Kopsahelis A., Zagklis D., Zafiri C. and Kornaros M\* "Used disposable nappies and expired food products valorization through one- & two-stage anaerobic co-digestion" oral presentation in the 7<sup>th</sup> International Symposium on Energy from Biomass and Waste (VENICE 2018), Scuola Grande di San Giovanni Evangelista, Venice, Italy, 15-18 October 2018.
- **130.** Vrouvaki I., Koutra E., **Kornaros M.**, Avgoustakis K., Lamari F. N., Hatziantoniou S. "Preparation and characterization of *Pistacia Lentiscus* var. *Chia* essential oil-loaded poly(lactic acid) nanoparticles as novel wound healing agent", oral presentation in the NanoMedicine 2018, 23 to 25 October, 2018, Venice, Italy.
- 131. Vrouvaki I., Koutra E., Kornaros M., Avgoustakis K., Lamari F. N., Hatziantoniou S. "Preparation and characterization of *Pistacia Lentiscus* var. *Chia* essential oil-loaded poly(lactic acid) nanoparticles as novel wound healing agent", poster presentation in the 1<sup>st</sup> International Conference on Nanotechnologies and Bionanoscience (NANOBIO 2018), 24-28 Σεπτεμβρίου 2018, Heraklion Crete, Greece.
- 132. Isemin R., Milovanov O., Klimov D., Muratova N., Teplitskii Y., Buchilko E., Grebenkov A., Pfeifer C., Soja G., Rachbauer L., Brule M., Tabet F., Kornaros M. "Torréfaction sèche et humide de litière de volaille dans un réacteur à lit fluidisé", XVIIème Congrès de la Société Française de Génie des Procédés (SFGP 2019), 15-17 October 2019, La Cité des Congrès de Nantes France.
- 133. Aravani V.P., Kornaros M., Papadakis V.G.\* "Agricultural residues in Greece: quantitative and qualitative characterization for assessing the most promising materials for biogas production" oral presentation in EUBCE 2021 29<sup>th</sup> European Biomass Conference and Exhibition, 20-29 April 2021, Marseille, France.
- **134.** Aravani V.P., Tsigkou K., **Kornaros M.**, Papadakis V.G.\* "Laboratory analyses for assessing the potential for biogas production of various agricultural residues of Greece", oral presentation in the *International Conference on Biosystems Engineering (BSE) 2021*, 5 7 May 2021, Tartu, Estonia.
- 135. Kornaros M.\*, Tsafrakidou P., Dareioti M., Zafiri C. "Assessment of synergistic effects during codigestion of typical agro-industrial wastes using Biochemical Methane Potential (BMP) assays" oral presentation in EUBCE 2021 – 29th European Biomass Conference and Exhibition, 20-29 April 2021, Marseille France.
- 136. Tsigkou K., Zagklis D., Zafiri C., Kornaros M.\* "A proposed protocol for the rate-limiting step determination of complex substrates anaerobic digestion" oral presentation in the 8<sup>th</sup> International Conference on Engineering for Waste and Biomass Valorisation WasteEng2020, May 31-June 4, 2021, Guelph- Canada.
- 137. Manthos G., Zagklis D., Zafiri C., Kornaros M.\* "High-rate Up-flow Anaerobic Sludge Blanket (UASB) bioreactor for the treatment of olive mill effluents" oral presentation in the 8<sup>th</sup> International Conference on Engineering for Waste and Biomass Valorisation - WasteEng2020, May 31-June 4, 2021, Guelph- Canada.
- **138.** Manthos G., Zagklis D., Zafiri C., **Kornaros M.\*** "Two-phase olive waste acidification as effective means of inhibiting 4-ethylphenol formation and improving the produced kernel oil acidity" oral presentation in the 8<sup>th</sup> International Conference on Engineering for Waste and Biomass Valorisation WasteEng2020, May 31-June 4, 2021, Guelph- Canada.
- 139. Tsigkou K., Tsafrakidou P., Zagklis D., Zafiri C., Kornaros M.\* "Used Disposable Nappies and Expired Food Products co-digestion: A pilot scale system assessment" oral presentation in the 8<sup>th</sup> INTERNATIONAL CONFERENCE ON SUSTAINABLE SOLID WASTE MANAGEMENT, 23-21 June 2021, Thessaloniki, Greece.

- 140. Zagklis D., Papadionysiou M., Tsigkou K., Tsafrakidou P., Zafiri C., Kornaros M.\* "Effect of pH on the dark fermentation of used disposable nappies and expired food products" oral presentation in the 8<sup>th</sup> INTERNATIONAL CONFERENCE ON SUSTAINABLE SOLID WASTE MANAGEMENT, 23-21 June 2021, Thessaloniki, Greece.
- 141. Aravani V.P., Tsigkou K., Kornaros M., Papadakis M. "Biochemical methane potential of various promising agricultural residues in Southern and Northern Greece" oral presentation in the 8<sup>th</sup> INTERNATIONAL CONFERENCE ON SUSTAINABLE SOLID WASTE MANAGEMENT, 23-21 June 2021, Thessaloniki, Greece.
- **142.** Papavasileiou P., Koutras S., Tarsanis T., Koutra E., **Kornaros M.\*** "Chemical pretreatment and biotechnological exploitation of rice hull with microalgae towards the production of natural phenolic compounds" poster presentation in the 8<sup>th</sup> INTERNATIONAL CONFERENCE ON SUSTAINABLE SOLID WASTE MANAGEMENT, 23-21 June 2021, Thessaloniki, Greece.
- 143. Papavasileiou P., Zervou M., Tsigkou K., Kornaros M.\* "Chemical pretreatment of Hippophae rhamnoeides prunings towards their biotechnological exploitation through anaerobic digestion" oral presentation the 8<sup>th</sup> INTERNATIONAL CONFERENCE ON SUSTAINABLE SOLID WASTE MANAGEMENT, 23-21 June 2021, Thessaloniki, Greece.
- 144. Gkioni M.D., Andriopoulos V., Koutra E., Fytas C., Hatziantoniou S., Kornaros M., Lamari F.N. "Evaluation of "green" extraction methods of the microalgae Nannochloropsis oculata for the development of antioxidant extracts" oral presentation in the 9<sup>th</sup> International Conference on Oxidative Stress in Skin Medicine and Biology, 9 - 12 September 2021, Andros, Greece.
- 145. Papavasileiou P., Terzopoulou S., Koutras S., Kornaros M.\* "Exploration of the biotechnological potential for microalgal production of natural polyphenols utilizing inorganic and organic substates", oral presentation in the 17<sup>th</sup> International Conference on Renewable Resources & Biorefineries (RRB2021), 6 8 Sept 2021, Aveiro, Portugal.
- **146.** Kornaros M.\*, Tsigkou K., Zagklis D., Tsafrakidou P. and Zafiri C. "Used Disposable Nappies: environmental burden or resource for biofuel production and material recovery?" invited lecture at the *International Conference on Biotechnology for Resource Efficiency, Energy, Environment, Chemicals and Health (BREEECH-2021),* 1-4 December 2021, Dehradun, India.
- 147. Andriopoulos V., Gkioni M.D., Koutra E., Mastropetros S.G., Lamari F.N., Hatziantoniou S., Kornaros M.\* "Antioxidant capacity, proximate biomass composition and fatty acid profile of five marine microalgal species with potential as aquaculture feed", poster presentation in the 18<sup>th</sup> International Conference on Renewable Resources and Biorefineries (RRB 2022), 1-3 June 2022, Bruges, Belgium.
- 148. Mastropetros S.G., Pispas K., Kornaros M.\* "Valorization of cyanobacterium C. fritschii for biopolymers production via digestate bioremediation", oral presentation in the 9<sup>th</sup> International Conference on Engineering for Waste and Biomass Valorisation (WasteEng2022), 27-30 June 2022, Copenhagen, Denmark.
- 149. Manthos G., Dareioti M., Zagklis D., Kornaros M.\* "Modeling of the synergistic effects of olive mill wastewater, cheese whey, and liquid cow manure co-digestion", oral presentation in the 9<sup>th</sup> International Conference on Engineering for Waste and Biomass Valorisation (WasteEng2022), 27-30 June 2022, Copenhagen, Denmark.
- **150.** Zafiri C., Papavasileiou P., Koutras S., **Kornaros M.\*** "Rice hull pretreatment strategies towards its biotechnological exploitation with microalgae and anaerobic digestion", poster & short oral presentation in the 9<sup>th</sup> International Conference on Engineering for Waste and Biomass Valorisation (WasteEng2022), 27-30 June 2022, Copenhagen, Denmark.
- 151. Aravani V.P., Tsigkou K., Kornaros M., Papadakis V.G. "Anaerobic co-digestion of agricultural residues produced in Southern and Northern Greece", poster & short oral presentation in the 9<sup>th</sup> International Conference on Engineering for Waste and Biomass Valorisation (WasteEng2022), 27-30 June 2022, Copenhagen, Denmark.
- **152.** Tsigkou K., Zagklis D., Zafiri C., **Kornaros M.\*** "Anaerobic digestion rate-limiting step determination: a proposed protocol for complex substrates", poster & short oral presentation in

the 9<sup>th</sup> International Conference on Engineering for Waste and Biomass Valorisation (WasteEng2022), 27-30 June 2022, Copenhagen, Denmark.

- **153.** Aravani V.P., Tsigkou K., **Kornaros M.**, Papadakis V.G. "Anaerobic co-digestion of agricultural residues produced in Southern Greece during spring/summer season", oral presentation in the 9<sup>th</sup> International Conference on Sustainable Solid Waste Management (CORFU 2022), 15-18 June 2022, Corfu, Greece.
- **154.** Tsigkou K., Zagklis D., Tsafrakidou P., Zafiri C., **Kornaros M.** "Transition from lab to pilot scale anaerobic digestion systems: effect of the substrate composition on the process stability and repeatability" oral presentation in the 1<sup>st</sup> International Conference on Sustainable Chemical and Environmental Engineering (SUSTENG22), 31 Aug 04 Sep 2022, Rethymno, Crete, Greece.
- **155.** Manthos G., Zagklis D., Zafiri C., and **Kornaros M.\*** "Technoeconomic and environmental sustainability assessment of anaerobic digestion of olive mill wastewater" oral presentation in the 9<sup>th</sup> International Symposium on Energy from Biomass and Waste (VENICE2022), 21-23 November 2022, Venice, Italy.
- 156. Aravani V.P., Zagklis D., Zafiri C., Wang W., Kornaros M.\*, Papadakis V.G.\* "Life cycle assessment of olive tree pruning management scenarios in Greece: gasification versus open field burning" oral presentation in EUBCE 2023 31<sup>st</sup> European Biomass Conference and Exhibition, 5-9 June 2023, Bologna, Italy.
- **157.** Aravani V.P., Zagklis D., Wang W., Zafiri C., **Kornaros M.**, Papadakis V.G. "Life cycle assessment of sheep and goat manure management scenarios in Greece: composting versus anaerobic digestion" oral presentation in the *International Conference on Renewable Resources and Biorefineries (RRB 2023)*, 31 May 2 June 2023, Riga, Latvia.
- **158.** Mougiou N., Didos S., Bouzouka I., Theodorakopoulou A., **Kornaros M.**, Argiriou A. "Valorizing Traditional Greek Wheat Varieties: Use of Barcoding for Species Identification and Biochemical Analysis of Their Nutritional Value" oral presentation in *ICWST 2023: 17. International Conference on Wheat Science and Technologies*, 17-18 August 2023, Budapest, Hungary.
- **159.** Mastropetros S.G., Sventzouri E., **Kornaros M.\*** "Poly-hydroxybutyrate (PHB) production by *Chlorogloeopsis fritschii* grown in diluted digestate", oral presentation in the 5<sup>th</sup> International Conference on Biorefinery and Biomanufacturing (ICB 2023), 23-27 July 2023, Athens, Greece.
- 160. Lachana Z., Zlatinis G., Tsigkou K., Charalabidis Y., Kornaros M., Lekkas D., Klontza E. "PROMETHEUS: Services, systems and methods for HEIs in the domains of Circular Economy, and Sustainable Development", oral presentation in the 18<sup>th</sup> International Conference on Environmental Science and Technology (CEST 2023), 30 August – 2 September 2023, Athens, Greece.
- **161.** Sventzouri E., Pispas K., Manthos G., **Kornaros M.\*** "Selecting and cultivating photosynthetic microorganisms in anaerobic digestion effluent from agricultural waste for bioplastic production" oral presentation in the 14<sup>th</sup> European Symposium on Biochemical Engineering Science ESBES 2024, 21<sup>st</sup>-23<sup>rd</sup> October 2024, Copenhagen, Denmark.
- 162. Pispas K., Sventzouri E., Manthos G., Kornaros M.\* "Effect of the Freeze-Thaw Method on the Extraction and Purity of Phycocyanin from Cyanobacterial Biomass" oral presentation in the 14<sup>th</sup> European Symposium on Biochemical Engineering Science ESBES 2024, 21<sup>st</sup>-23<sup>rd</sup> October 2024, Copenhagen, Denmark.
- **163.** Manthos G., **Kornaros M.\*** "Technoeconomic evaluation of an anaerobic effluent treatment plant for the production of bioplastics via photosynthetic microorganisms" oral presentation in the 14<sup>th</sup> European Symposium on Biochemical Engineering Science ESBES 2024, 21<sup>st</sup>-23<sup>rd</sup> October 2024, Copenhagen, Denmark.
- **164.** Sventzouri E., Pispas K., Manthos G., **Kornaros M.\*** "Selecting and cultivating photosynthetic microorganisms in anaerobic digestion effluent from agricultural waste for bioplastic production" oral presentation in the 10<sup>th</sup> International Symposium on Energy from Biomass and Waste (VENICE2024), 25-27 November 2024, Venice, Italy.

## **PUBLICATIONS IN NATIONAL REFEREED JOURNALS**

1. Lambropoulou V., Karageorgopoulos A., Kornaros M. and Tsoutsos T. (2004) "Environmental impacts from small hydroelectric plants – the Greek Experience", *Tech. Chron. Sc. Ed. TCG*, III, vol 1-2, p. 9-24.

# **PUBLICATIONS IN NATIONAL REFEREED CONFERENCES**

- 1. Zafiri C., Koutsikopoulos C., **Kornaros M.**, Fragopoulu N., Lykakis J. and Lyberatos G. "Structure and scales of variability of the hydrology and biological characteristics of the lagoon of Koutavos (Kefalonia, Greece)", *Proceedings of the 5<sup>th</sup> Hellenic Symposium on Oceanography and Fisheries*, Kavala, Greece, 15-18 April 1997, vol II, 305-308.
- Marazioti C, Kornaros M. and Lyberatos G. "Mathematical modelling of the performance of a mixed culture of *Pseudomonas denitrificans* and *Bacillus subtillis* under aerobic and anoxic conditions", *Proceedings of the 3<sup>rd</sup> Panhellenic Scientific Conference of Chemical Engineering*, 31 May 2 June 2001 Athens, Vol. B', 977-980.
- Frounda K., Zissi U., Kornaros M. and Lyberatos G. "Biological treatment of textile waste water in an aerobic Sequencing Batch Reactor", Proceedings of the 3<sup>rd</sup> Panhellenic Scientific Conference of Chemical Engineering, 31 May – 2 June 2001 Athens, Vol. B', 969-972.
- **4.** Marazioti C, **Kornaros M.** and Lyberatos G. "Mathematical model development for mixed cultures describing nitrogen removal in a Sequencing Batch Reactor", *Proceedings of the 4<sup>th</sup> Panhellenic Scientific Conference of Chemical Engineering*, Patras, 29-31 May 2003, 977-980.
- Stamatelatou K., Dokianakis S.N., Drillia P., Fountoulakis M.S., Frouda C., Kornaros M. and Lyberatos G. "The fate of pharmaceuticals until their environment disposal: the example of ofloxacin", Proceedings of the 4<sup>th</sup> Panhellenic Scientific Conference of Chemical Engineering, Patras, 29-31 May 2003, 1045-1048.
- Vlachos P., Kampioti A., Kornaros M.\* and Lyberatos G. "The use of gaseous ozone for sterilization and neutralization of contaminating organic compounds in natural cork stoppers", *Proceedings of the 5<sup>th</sup> Panhellenic Scientific Conference of Chemical Engineering*, Thessaloniki, 26-28 May 2005, 217-220.
- Savvoglidis G., Kornaros M. and Kravaris C. "Modelling and optimization of biological nitrogen removal from municipal wastewaters in a Sequencing Batch Reactor", *Proceedings of the 5<sup>th</sup> Panhellenic Scientific Conference of Chemical Engineering*, Thessaloniki, 26-28 May 2005, 213-216.
- Stamatelatou K., Lyberatos G., Kornaros M., Kampioti A., Fountoulakis M.S., Pakou C., Schmidt J.E., Christensen N., Angelidaki I., Batstone D.J., Trably E., Metzger L., Amellal N., Watson J., García K., Ayuso S., Bala A. and Patureau D. "Removal of xenobiotic compounds from sewage sludge aiming at its disposal on agricultural land", oral presentation in the 2<sup>nd</sup> EEDSA Conference, Athens, 3-4 February 2006.
- **9.** Flessia G., Kakogiani A., Marazioti C, **Kornaros M.\*** and Lyberatos G. "Biological nitrogen removal from municipal wastewaters by-passing nitrate production in an Sequencing Batch Reactor (SBR)", oral presentation in the *Panhellenic Conference «Small-Scale Wastewater Treatment Plants»*, Portaria, Pilion, Greece, 8-9 April 2006.
- Vlachos P., Kampioti A., Kornaros M.\* and Lyberatos G. "Protection of bottled wine against contaminating organic compounds responsible for odor production using alternative absorption media", *Proceedings of the 6<sup>th</sup> Panhellenic Scientific Conference of Chemical Engineering*, Athens, 31 May 2 June 2007, 1369-1372.
- Kontoulis D., Katsieris C., Vlachos P and Kornaros M.\* "Preservation and treatment of table grapes using gaseous ozone", Proceedings of the 6<sup>th</sup> Panhellenic Scientific Conference of Chemical Engineering, Athens, 31 May – 2 June 2007, 1365-1368.
- Antonopoulou G., Kalfas C., Koutrouli E.K., Venetsaneas N., Gavala C.N., Skiadas I.V., Stamatelatou K., Kornaros M. and Lyberatos G. "Production of biofuels from energy crops and wastes", Proceedings of the 6<sup>th</sup> Panhellenic Scientific Conference of Chemical Engineering, Athens, 31 May – 2 June 2007, 1457-1460.

- **13.** Fakiris E., Papatheodorou G., Geraga M., Patsourakis M., Ferentinos G., Kiparissis S., Kapareliotis A., Ramfos A., Tryfonopoulos G., **Kornaros M.** and Rallatos D. "Acoustic mapping of *Posidonia oceanica* meadows using the of automatic classification software texturean: application in Laganas and Alykes Gulf (Zakynthos island) (Greece)", oral presentation in the *Conference of Oceanography*, Patras, 2009.
- 14. Kiparissis S., Papatheodorou G., Geraga M., Tryfonopoulos G., Fakiris E., Kornaros M. and Ferentinos G. "Illegal fishing and spreading of the invading chlorophyte *Caulerpa racemosa*. Synergistic effect resulting to potential irreversible degradation of *Posidonia* meadows". Oral presentation to the *Ecology Conference*, Patras, 2010.
- **15.** Vavouraki A., Dareioti M. and **Kornaros M\*** "Characterization, ensilaging and chemical pretreatment of *Sweet Sorghum* (*Sorghum bicolor (L.) Moench*) stalks for biogas production" *Proceedings of the 8<sup>th</sup> Panhellenic Scientific Conference of Chemical Engineering*, Thessaloniki, 26-28 May 2011.
- 16. Angelis E., Vavouraki A. and Kornaros M\* "Valorization of the organic fraction of municipal solid wastes (ofmsw) for biofuel production", Proceedings of the 8<sup>th</sup> Panhellenic Scientific Conference of Chemical Engineering, Thessaloniki, 26-28 May 2011.
- 17. Dareioti M., Vavouraki A. and Kornaros M\* "Effect of pH on biohydrogen production during the anaerobic acidogenesis of an agroindustrial wastewaters mixture" *Proceedings of the 8<sup>th</sup> Panhellenic Scientific Conference of Chemical Engineering*, Thessaloniki, 26-28 May 2011.
- Kourmentza C. and Kornaros M. "Production of poly-hydroxyalkanoates (PHAs) from pure and mixed cultures of microorganisms using synthetic substrates and olive mill wastewaters" *Proceedings of the 9<sup>th</sup> Panhellenic Scientific Conference of Chemical Engineering*, 23-25 May 2013, Athens, Greece.
- **19.** Zakoura M., Kopsahelis A. and **Kornaros M.** "Studying the performance of high-rate anaerobic reactors treating three-phase olive mill wastewater" *Proceedings of the 9<sup>th</sup> Panhellenic Scientific Conference of Chemical Engineering*, 23-25 May 2013, Athens, Greece.
- 20. Dareioti M., Vavouraki A. and Kornaros M\* "Optimization of anaerobic co-digestion of cow manure with sweet sorghum" Proceedings of the 9<sup>th</sup> Panhellenic Scientific Conference of Chemical Engineering, 23-25 May 2013, Athens, Greece.
- 21. Stavropoulos K.P., Kopsahelis A., Zafiri C. and Kornaros M.\* "The approach of biorefinery in the expired dairy products management through co-digestion with agroindustrial wastes" poster presentation in the 4<sup>th</sup> Panhellenic Conference "Green Chemistry and Sustainable Development", Ioannina, Greece, 30 October 1 November 2014.
- 22. Koutra E., Kopsahelis A., Zafiri C., Kornaros M., Kadena, K., Bratskas, R., Anagnostopoulos, T., Nitodas, S. and Lopez, J.A. "Development of an e-learning training platform for the operation and management of biogas production plants" poster presentation in the 11<sup>th</sup> Panhellenic Symposium on Oceanography and Fisheries "Aquatic Horizons: Challenges & Perspectives", Mytilene, Lesvos island, Greece, 13 17 May 2015.
- **23.** Koukoumis C. and **Kornaros M.** "Detection of pharmaceuticals in municipal wastewaters and study of their fate and biodegradability in Municipal Wastewater Treatment Plants" *Proceedings of the* 10<sup>th</sup> *Panhellenic Scientific Conference of Chemical Engineering*, Patras, Greece, 4-6 June 2015.
- **24.** Stavropoulos K.P., Kopsahelis A., Zafiri C., **Kornaros M.\*** "Energy valorization of end-of-life dairy products via anaerobic co-digestion with agro-industrial wastes" *Proceedings of the* 10<sup>th</sup> *Panhellenic Scientific Conference of Chemical Engineering*, Patras, Greece, 4-6 June 2015.
- **25.** Vavouraki A., Dareioti M., and **Kornaros M.** "Recovery of phenolic compounds from olive mill wastewaters using resin FPX-66: adsorption kinetics and equilibrium studies" *Proceedings of the* 10<sup>th</sup> Panhellenic Scientific Conference of Chemical Engineering, Patras, Greece, 4-6 June 2015.
- 26. Tsigkou K., Sakarika M. and Kornaros M. "Study of biochemical methanogenic potential of olive mill wastewater under mesophilic and thermophilic conditions testing mixed microbial cultures (inoculums) of different origins" *Proceedings of the 11<sup>th</sup> Panhellenic Scientific Conference on Chemical Engineering*, Thessaloniki, Greece, 25 27 May 2017.

- Koutra E., Grammatikopoulos G. and Kornaros M. "Biotechnological valorization of anaerobically treated agro-livestock waste using microalgae" *Proceedings of the 11<sup>th</sup> Panhellenic Scientific Conference on Chemical Engineering*, Thessaloniki, Greece, 25 - 27 May 2017.
- **28.** Tsigkou K. and **Kornaros M.\*** "Treatment of three phase olive mill wastewater utilizing a highrate thermophilic upflow packed bed reactor" *Proceedings of the 5<sup>th</sup> Panhellenic Conference* "Green Chemistry and Sustainable Development", Patras, Greece, 20- 22 October 2017.
- **29.** Charalambous N., Grammatikopoulos G., **Kornaros M.**, Kourmentza K., Dailianis S. "Study of the effects of rhamnolipids on the unicellular phytoplankton organism *Dunaliella tertiolecta*", *Proceedings of the 40<sup>th</sup> Annual Conference of the Hellenic Society of Biological Sciences (EEBE)*, Veria, Greece, 24-26 May 2018.
- Tsigkou K., Zagklis D., Tsafrakidou P., Panagiotouros A., Zontos D., Sionakidis D., Zafiri C., Kornaros M.\* "Valorization of used disposable nappies and expired foods through anaerobic digestion in a two-stage pilot system" *Proceedings of the 12<sup>th</sup> Panhellenic Scientific Conference* of Chemical Engineering, Athens, Greece, May 29-31, 2019.
- **31.** Ginis A., Tsigkou K., **Kornaros M.**, Stivanakis V. "The Araxos Lagoon as part of the Kotychi -Strofylia National Park" *Proceedings of the* 12<sup>th</sup> *Panhellenic Scientific Conference of Chemical Engineering*, Athens, Greece, May 29-31, 2019.
- **32.** Psathas E., Koutra E., **Kornaros M.**, Grammatikopoulos G. "Photosynthetic changes in *Chlorella vulgaris* cultures when supplemented with glucose and assessment of FRRF parameters", *Proceedings of the 41st E.E.B.E. Scientific Conference*, Katerini, Greece, May 9-11, 2019.
- **33.** Aravani V., Tsigkou K., **Kornaros M.**, Papadakis V.G. "Integrated management and valorization of agricultural residues application to biogas production" *Proceedings of the 1<sup>st</sup> Online Conference of Young Scientists "Mineral Resources-Environment-Chemical Engineering"* (*CheMop*), Kozani, Greece, February 26-28, 2021.
- **34.** Mastropetros S.G., Koutra E., **Kornaros M.** "Cultivation of the microalgae *Chlorella vulgaris* in anaerobic effluent of a pilot anaerobic digestion unit with different concentrations of ammonia nitrogen" *Proceedings of the* 1<sup>st</sup> *Online Conference of Young Scientists "Mineral Resources-Environment-Chemical Engineering"* (*CheMop*), Kozani, Greece, February 26-28, 2021.
- **35.** Aravani V., Spiliopoulou E., **Kornaros M.**, Papadakis V.G. "Integrated management and utilization of agricultural residues application to energy production" *Proceedings of the International Conference Public Administration and the Environment: Searching for the Golden Ratio of Sustainable Development*, Athens, Greece, April 1-2, 2022.
- **36.** Aravani V., Tsigkou K., **Kornaros M.**, Papadakis V.G. "Energy valorization of agricultural residues through anaerobic digestion spatial and seasonal study" *Proceedings of the* 13<sup>th</sup> Panhellenic Scientific Conference of Chemical Engineering, Patras, Greece, June 2-4, 2022.
- **37.** Liakopoulou A., Mountzaki S., Lamari F., **Kornaros M.**, Chatziantoniou S. "Investigation of the effect of microalgae extracts on cosmetic properties of the skin" *Proceedings of the 13<sup>th</sup> Panhellenic Scientific Conference of Chemical Engineering*, Patras, Greece, June 2-4, 2022.
- **38.** Manthos G., Zagklis D., **Kornaros M.** "Effect of olive pomace acidification on the production of odorous compounds and the acidity of the produced kernel oil as a function of storage time" *Proceedings of the 13<sup>th</sup> Panhellenic Scientific Conference of Chemical Engineering*, Patras, Greece, June 2-4, 2022.
- **39.** Stavropoulou L., Papavasileiou P., **Kornaros M.**, Lamari F. "Evaluation of leaves and flowers from *Salvia verticillata L.* as a source of bioactive compounds Analysis of composition and antioxidant activity" *Proceedings of the 19<sup>th</sup> Hellenic Symposium on Medicinal Chemistry (HSMC-19)*, Patras, Greece, 9-11 March 2023.
- Zacharopoulou C., Papavasileiou P., Kornaros M., Lamari F. "Chemical characterization of Portulaca oleracea L. - Evaluation of antioxidant activity and content in fatty acids" Proceedings of the 19<sup>th</sup> Hellenic Symposium on Medicinal Chemistry (HSMC-19), Patras, Greece, 9-11 March 2023.
- **41.** Sventzouri E., Pispas K., Manthos G., **Kornaros M.\*** "Evaluation of photosynthetic microorganism cultures in liquid runoff from anaerobic digestion of agro-livestock residues for bioplastics

production" oral presentation at the 14<sup>th</sup> Panhellenic Scientific Conference on Chemical Engineering, Thessaloniki, Greece, 29-31 May, 2024.

- **42.** *Pispas* K., Geroulia M., Sventzouri E., Manthos G., **Kornaros M.\*** "Study of the freezing-thawing method using different solvents for the extraction of phycocyanin from cyanobacterial biomass" oral presentation at the *14<sup>th</sup> Panhellenic Scientific Conference of Chemical Engineering*, Thessaloniki, Greece, 29-31 May 2024.
- **43.** Manthos G., Papoutsi F., Sventzouri E., **Kornaros M.\*** "Techno-economic evaluation of an anaerobic effluent treatment unit using photosynthetic microorganisms for the production of bioplastics" poster presentation at the 14<sup>th</sup> Panhellenic Scientific Conference of Chemical Engineering, Thessaloniki, Greece, 29-31 May 2024.

# **PRESENTATIONS IN NATIONAL CONFERENCES & WORKSHOPS – INVITED LECTURES**

- Kornaros M., Zafiri C. and Lyberatos G. "Removal of nutrients from wastewaters" *Proceedings* of the Workshop "Environment – Development – Civilization", University of Patras, Patras, 27-29 November 1996, 155-166.
- Zissi U., Liakou S., Kornaros M. and Lyberatos G. "Chemical and biological treatment of dyes containing wastewaters" *Proceedings of the Workshop "Environment Development Civilization*", University of Patras, Patras, 27-29 November 1996, 175-186.
- **3.** Participation in the Exhibition HELLECO '93. Poster of the Laboratory of Biochemical Engineering and Environmental Technology, Department of Chemical Engineering and General Secretariat of Research and Technology (GSRT).
- **4. Kornaros M.** "Modelling and optimization of biological processes in environmental systems" invited lecture in FORTH/ICEHT, April 2000.
- **5. Kornaros M.** "Modelling and optimization of biological processes in environmental systems" invited lecture in the Department of Chemistry/ University of Crete, November 2000.
- 6. Kornaros M., Zafiri C. and Lyberatos G. "Biological removal of nutrients from municipal wastewaters". Lecture in the Conference organized in the framework of programme EPET II (GSRT) *Human Networks* "Biotechnological exploitation of microorganisms for the production of added-value products, diagnostic tests, treatment of foods and wastes", University of Patras, Patras, 7 October 2000.
- 7. Kornaros M. "Exploitation of biotechnological methods for energy production from biomass and wastes". Lecture in the *Workshop "Energy as a tool for sustainable regional development"* organized by the Region of Western Greece in the framework of European Programme SAVE II, Region of Western Greece, Patras, 8 June 2001.
- 8. Kornaros M. "Development, modelling and optimization of wastewater and potable water treatment systems". Invited lecture in the Department of Civil Engineering/ University of Patras, October 2001.
- **9.** Lyberatos G., Agelopoulos C., **Kornaros M.**, Kanistra A., Spyratou A. and Manoli A. "The Koutavos lagoon in Kefalonia: Current environmental status and perspectives", oral presentation in the *Symposium "Environment and Agriculture"*, Argostoli, Kefalonia, 14-16 June 2002.
- 10. Potamianos E., Kornaros M. and Lyberatos G. "GIS as a tool for municipal solid waste management" oral presentation in the Workshop "Integrated Management of Solid Wastes in Western Greece: Problems and Perspectives" organized by University of Patras and TCG/DWG, Patras, 29 May 2002.
- 11. Papageorgiou S., Tsakarestos I., Kornaros M. and Lyberatos G. "Environmental Impact Assessment of alternative scenarios for integrated design of municipal solid waste management in the Prefecture of Argolida using Life Cycle Assessment (LCA)" oral presentation in the 1<sup>st</sup> Conference "The contribution of Academia in the development of Prefecture of Argolida" organized by the University of Piraeus, 7-8 November 2003, Argos and Kranidi, Argolida.
- **12. Kornaros M.** "Municipal Solid Waste Treatment Technologies" oral presentation in the *Workshop "Municipal Solid Wastes – Management Methods – Perspectives for Implementation in the Prefecture of Ilia*" organized by TCG/DWG, Pyrgos Ilias, 4 December 2004.

- **13.** Georgiopoulou M, **Kornaros M.** and Lyberatos G. "An innovative system for biological removal of organics and nitrogen from municipal wastewaters via by-passing of nitrate production" oral presentation in the 71<sup>st</sup> International Exhibition of Thessaloniki, "Innovation", Global Exchange Innovation, Thessaloniki, 8-17 September 2006.
- Georgiopoulou M, Kornaros M. and Lyberatos G. "Municipal solid wastes treatment technologies" oral presentation in the 71<sup>st</sup> International Exhibition of Thessaloniki, "Innovation", Global Exchange Innovation, Thessaloniki, 8-17 September 2006.
- **15. Kornaros M.** "Valorization of the organic fraction of municipal solid wastes" oral presentation in the *Workshop "Don't waste municipal solid wastes"*, Environmental Education Centre in Makrinitsa Pilion, 23 25 November 2007.
- 16. Kornaros M. «Anaerobic co-digestion as a means for energy exploitation of agro and food wastes" oral presentation in the *Ecoforum "Managing Demanding Waste Streams*", ECOTEC'08 1<sup>st</sup> International Exhibition for Environmental Technologies, 23-26 May 2008, Anthoussa-Attica, Greece.
- **17. Kornaros M.** "Decentralized management of municipal wastewater using an innovative SBR", *Watercycle International Conference on Water Sustainable Management Best Practices* (*WIC2008*), Brindisi, 29-30 May 2008, Italy.
- "«BIOMET» University of Patras' interuniversity network Biocolloids fate and transport to environmental systems" poster presentation to the 4<sup>th</sup> Panhellenic Conference of Porous Media, 22-23 October 2009, Patras, Greece.
- **19.** Kornaros M. "Integrated management of agroindustrial wastes" oral presentation in *Workshop* organized by the prefecture of Ilia, Pyrgos Ilias, 29 January 2010.
- **20.** Skagia A., Ntaikou I., **Kornaros M.** "Effect of environmental stress on carotenoids accumulation by the microalgae *Dunaliella salina*", oral presentation in the *32<sup>nd</sup> Scientific Conference of the Hellenic Company of Biological Sciences (H.C.B.S.)*, 20-22 May 2010, Karpenisi, Greece.
- 21. Kornaros M. "Integrated management of agroindustrial wastes" invited lecture in the *Workshop "Environmental Technologies: Greece and European Practices"* organized by the Department of Geology and GeoEnvironment, NKUA, 28 November 2011, Athens, Greece.
- **22.** Kornaros M. "Integrated management of agroindustrial wastes" invited lecture in the 1<sup>st</sup> Energy Forum "Science & Technology : towards energy saving and development of RES", 7 February 2012, Patras, Greece.
- **23.** Kornaros M. "Energy and environmental management of agricultural and livestock wastes" invited lecture in the 2<sup>nd</sup> Energy Forum, 8-9 February 2013, Patras, Greece.
- **24.** Kornaros M. "Integrated management of agricultural and livestock wastes with simultaneous production of electricity and thermal energy" poster presented in the 2<sup>nd</sup> Energy Forum, 8-9 February 2013, Patras, Greece.
- **25. Kornaros M.** "Energy valorization of by-products generated by agro-industrial activities" invited lecture in the workshop organized by the University of Patras/Innovation and Technology Transfer Office and the Commercial Chamber of Achaia, 29 April 2013, Patras, Greece.
- **26. Kornaros M.** "Energy valorization of agro-industrial by-products" invited lecture in the workshop «Recycling-valorization of municipal solid wastes and agro-industrial by-products" organized by the Association of Greek Chemists/Regional Department of Epirus, Corfu & Lefkada, 20 June 2013, Ioannina, Greece.
- 27. Kornaros M. "Assessment of environmental damage in the water and land" invited lecture in the workshop "Implementation of environmental damage legislation in the national level" organized by the Ministry of Environment, Energy & Climate Change, 13 November 2013, Patras, Greece.
- **28. Kornaros M.** "Energy production from wastes" invited lecture in the workshop "Renewable Energy Sources and Development" organized by the Cyprus University of Technology, 30 November 2013, Limassol, Cyprus.
- **29.** Kornaros M. "Development of innovative and enhanced environmental technologies for liquid and solid agroindustrial wastes management" invited lecture in the workshop "BIOFUELS –

Energy window in the 21<sup>st</sup> century" organized by the Region of Epirus/Regional Entity of Arta, 7 March 2014, Arta, Greece.

- **30.** Kornaros M. "Development of innovative and enhanced environmental technologies for liquid and solid agroindustrial wastes management" invited lecture in the workshop "BIOFUELS Energy window in the 21<sup>st</sup> century" organized by the Region of Epirus/Regional Entity of Preveza, 8 March 2014, Preveza, Greece.
- Siorou S., Dareioti M.A., Kornaros M. and Dailianis S. "Assessment of toxicity from olive mill wastewater (OMW) in aquatic organisms before and after its treatment via ozonation" oral & poster presentation in the 36<sup>th</sup> Annual Conference of the Hellenic Society for Biological Sciences, 8-10 May 2014, Ioannina, Greece.
- **32. Kornaros M.** "Energy valorization of agro-industrial wastes" invited lecture in the workshop "Energy from Biomass" organized by the Energy Office of Information for Biomass, 28 November 2014, Monodendri, Patras, Greece.
- **33.** Kornaros M. "Development of sustainable strategies for integrated management of agroindustrial wastes" oral presentation and chairmanship in the workshop organized by the Development Company of Western Greece Region S.A., 19 March 2015, Patras, Greece.
- **34. Kornaros M.** "Presentation of data obtained from Industries of Western Greece during a survey for Energy and Environmental Valorization of Natural Gas: Part 2- Environmental Benefits" oral presentation in the 4<sup>th</sup> Energy Forum, 13-14 March 2015, Patras, Greece.
- **35.** Kornaros M. "Agroindustrial wastes management: a problem to solve or opportunity for investments?" invited lecture in the 3<sup>rd</sup> International Conference on Development Prospects in Western Greece, 13-14 June 2015, Patras, Greece.
- **36.** Kornaros M. "Valorization of agro-industrial residues and sweet sorghum for biogas production" oral presentation to the 3<sup>rd</sup> Workshop, Microbiology and Biotechnological Applications: Challenges and Opportunities III, Department of Biology, University of Patras, 23 July 2015, Patras, Greece.
- **37. Kornaros M.** "Optimization of energy valorization of end-of-life dairy products and environmental impact assessment of the proposed technology" oral presentation in the *Final Conference of DAIRIUS Project*, Limassol, 24 June 2015, Cyprus.
- **38.** Kornaros M. "Valorization of end-of-life dairy products via co-digestion with agroindustrial wastes for biogas production the DAIRIUS Project" oral presentation in the *Technical Conference on Biogas- Training for the management of biogas plants in DELOS project*, 17 September 2015, Zaragoza, Spain.
- **39.** Kornaros M. "INTEGRASTE Development of integrated agro-industrial waste management politics maximizing materials recovery and energy exploitation in Western Greece" oral presentation in the EIP-AGRI Workshop "Opportunities for Agriculture and Forestry in the Circular Economy", Naantali, Finland, 28-29 October 2015.
- Kornaros M. "Presentation of TEE/TDE research results for Natural Gas in Western Greece, Part 2: Economic Analysis and Environmental Benefit", oral presentation at the 6<sup>th</sup> Energy Forum, Patras, 3-4 February 2017.
- **41.** Koutra E. and **Kornaros M.\*** "Microalgae-based valorization of agro-waste digestate towards lipids production" poster presentation in the 3<sup>rd</sup> Workshop of Graduates and Postdocs in Chemical Engineering Sciences, Patras, 4 October 2017.
- **42.** Tsigkou K., Makris F., Tsafrakidou P., Zafiri C. and **Kornaros M.\*** "Valorization of disposable nappies for biogas production and plastics recovery" oral presentation in the 3<sup>rd</sup> Workshop of Graduates and Postdocs in Chemical Engineering Sciences, Patras, 4 October 2017.
- **43. Kornaros M.** "Integrated valorization of agroindustrial waste towards energy production: the example of the Prefecture of Western Greece pilot plant at the Patras' Industrial Zone" oral presentation in the Workshop "Energy communities and Primary Sector", Prefecture of Western Greece, Patras, 14 June 2018.
- **44.** Tsigkou K., Zagklis D., Tsafrakidou P., Panagiotouros A., Sionakidis D., Zontos D., Zafiri C. and **Kornaros M.**\* "Towards Life Cycle Thinking through Valorization of Used Disposable Nappies and

Expired Food Products for the Production of Biofuels and Added-Value Materials" oral presentation in the 4<sup>th</sup> Workshop of Graduates and Post-Docs in Chemical Engineering Sciences (CES-WGP4), Patras, Greece, 31 October 2018.

- **45.** Tsafrakidou P., Tsigkou K., Zagklis D., Zafiri C. and **Kornaros M.** "Valorization of used nappies and expired food for biohydrogen and biogas production", oral presentation at the "*Circular Economy Workshop*", Department of Environmental Management and Natural Resources, Agrinio, 21 November 2018.
- **46.** Kornaros M. "Recycling-Reuse with an emphasis on correct recycling", invited oral presentation at the Green University of Patras' Workshop Green Campus in the framework of the Pan-Hellenic Let's do it Greece 2019 Campaign, Patras, 7 April 2019.
- 47. Tsigkou K., Tsafrakidou P., Zagklis D., Zafeiri C. and Kornaros M. "Two-stage Anaerobic codigestion of Expired Food Products and Used Disposable Diapers hydrolysate: The effect of pretreatment during the system performance" e-poster presentation in the 5th Distance elearning International Summer School on Wastewater and Biosolids Management (WWSS19), Hellenic Open University, Patras, Greece, 22 – 27 July 2019.
- **48.** Manthos G., Zagklis D., Tsafrakidou P., and **Kornaros M.**\* "Kinetic modelling of bioethanol production from *Saccharomyces cerevisiae*" oral presentation in the 5<sup>th</sup> Workshop of Graduates and Post-Docs in Chemical Engineering Sciences (CES-WGP5), 6 November 2019, Patras, Greece.
- **49.** Papavasileiou P., Koutras S., Terzopoulou S. and **Kornaros M.\*** "Dilute Sulfuric Acid Pretreatment of Rice Hull for Natural Phenolic Antioxidants Production by Microalgae" oral presentation in the 5<sup>th</sup> Workshop of Graduates and Post-Docs in Chemical Engineering Sciences (CES-WGP5), 6 November 2019, Patras, Greece.
- 50. Kornaros M. "Presentation of project e KLIM.A. (https://e-clima.info/) project financed by the Green Fund" oral presentation at the Conference "e CLIMA.A. Electronic Open Data Repository for the Highlighting and Dissemination of Good Practices, Policies and Actions regarding Climate Change & EnerCom EnerPov Energy Communities Energy Poverty", 8 September 2020, Villa Kazouli, Athens, Greece.
- **51. Kornaros M.** "Utilization of used disposable nappies & expired food for the production of biofuels, recyclable plastics and compost" oral presentation at the *Conference "Benefits from Intensive Waste Utilization"*, 19 November 2020, Paralimni Cyprus.
- **52. Kornaros M.** "Waste4Think-Valorization of organic waste for the production of biofuels, recyclable plastics and compost", oral presentation at the *Online Conference "EUandU 2021 Science and innovation in our daily life"*, 18 January 2021, Athens, Brussels, Heraklion, Patras.
- 53. Tsigkou K., Zagklis D., Zafiri C. and Kornaros M. "Anaerobic digestion of complex substrates: a proposed protocol for the process rate-limiting step determination" e-poster presentation in the 6<sup>th</sup> Distance e-learning International Summer School on "Wastewater and Biosolids Management" (WWSS21), Hellenic Open University, Patras, Greece, 26 31 July 2021.
- **54.** Aravani V.P., Tsigkou K., **Kornaros M.**, Papadakis V.G., "Integrated management and exploitation of multi-dispersed agricultural residues- application to biogas production", Circular Economy in the framework of project "ADRION CIRCLE", Agrinio, Greece, 21 December 2021.

#### **Development of Laboratory Facilities**

- 2011 present Head of the Laboratory of Biochemical Engineering and Environmental Technology (LBEET)/Department of Chemical Engineering (University of Patras). Registered Laboratory under the Greek Law (P.D. 114/2002). LBEET has been developing after 2011 as an upgrade of the former Environmental Processes Engineering Lab (EPEL).
- 2006 2011 Foundation, development, and heading of the Environmental Processes Engineering Laboratory (EPEL) – Department of Chemical Engineering (University of Patras).

1991 - 2005Prof. G. Lyberatos' Assistant for the development and operation of the<br/>Laboratory of Biochemical Engineering and Environmental Technology (LBEET) –<br/>Department of Chemical Engineering (University of Patras).

## DEVELOPMENT OF PILOT AND FULL-SCALE FACILITIES

- 2016 2020 Design, supervision of construction and operation of a pilot plant under the framework of the European Project H2020 WASTE4THINK with the aim of biotechnological valorization of used diapers (infant and adult) in combination with food unsuitable for consumption for the production of gaseous biofuels (hydrogen, methane) and soil conditioner (compost).
- 2012 2015 Participation in the planning, construction supervision and operation of a pilot plant for the valorization of end-of-life dairy products through anaerobic codigestion with agricultural waste (olive mills - slaughterhouses - pig farms, etc.) for the production of gaseous biofuels (hydrogen, methane) under the framework of the DAIRIUS project (LIFE10 ENV/CY/000721).
- 2008 2015 Design, supervision of construction and operation of pilot-scale facilities for the demonstration of integrated agroindustrial waste management (olive mill wastewaters, cheese whey, cow & pig manure etc) combined with agricultural residues and energy crops (sweet sorghum) through anaerobic co-digestion for the production of hydrogen, biogas, liquid fertilizers and compost (aerobic and vermi). The plant is located in the Industrial Zone of Patras. The plant construction and upgrade has been funded by the EU programmes AGROENERGY, INTEGRASTE and BIOGAIA. Plant cost : greater than 500.000 €.
- 2009 Design, supervision of construction and operation of a full-scale plant for the treatment of wastewaters produced from a Cafeteria Restaurant in Patras (Greece).

#### **TECHNICAL STUDIES & REPORTS**

1.	3/2005	Environmental Impact Assessment (EIA) Study of the new facilities of Hellenic Open University in Perivola Patras.
2.	2002	Technical study for the treatment of wastewaters generated from a dye- producing company (VIOCHROM S.A.) using combined photocatalytic and biological processes.
3.	7/2002	Business and Strategic Plan for the development of Hellenic Open University
4.	7/2002	Environmental Impact Assessment (EIA) Study and Wastewater Treatment Study for INOTSIMENT S.A. – production and trading of building materials
5.	6/2002	Environmental Impact Assessment (EIA) Study for MACHRO S.A. – manufacturing and trading of synthetic dyes
6.	1/2002	Study for Permit of Sitting and Environmental Impact Assessment (EIA) Study for the construction of an irrigation plant in Salmenino (Achaia Prefecture)
7.	1/2002	Study for Permit of Sitting and Environmental Impact Assessment (EIA) Study for the construction of an irrigation plant in Kalamia-Voutsimo (Achaia Prefecture)
8.	1/2002	Wastewater Treatment Study for the removal of pharmaceutical compounds
9.	11/2001	Study for Permit of Sitting of the new Slaughterhouse in Vonitsa Aitoloakarnania (Western Greece)
10.	9/2011	Design and Technoeconomic Study for the construction of a pilot plant producing electricity from RES with zero emissions
11.	7/2001	Study for Permit of Sitting and Environmental Impact Assessment (EIA) Study for the construction of a C'Class Hotel in the city of Nafpaktos
12.	6/2001	Design of a drainage system and sewer for the cut & cover area at the Archeological Site of the new highway in Patras

13.	6/2001	Wastewater Treatment Study for a motor-oil reforming company
14.	5/2001	Environmental Impact Assessment (EIA) Study for a small hydroelectric plant of 110 KW at Ladonas River (Achaia Prefecture)
15.	5/2001	Technical Study : "Inventory of air emissions, wastewaters and solid wastes produced from industries and emissions from central heating" (Ministry of Environment, Urban Planning and Public Works)
16.	4/2001	Technical Study : "Effect of pharmaceutical compounds to natural ecosystems"
17.	3/2001	Technical Study : "Design of a pilot plant for dyeing wastewater treatment"
18.	2/2001	Technical Study : "Development of a mathematical model for biological treatment of dyeing wastewaters"
19.	12/2000	Technical Study : "Application of a G.I.S. system for the selection and evaluation of appropriate sites for construction of Municipal Solid Waste Treatment facilities in the Prefecture of Lefkada"
20.	12/2000	Technoeconomic Feasibility Study for the construction of a small hydroelectric plant at Ladonas River (Achaia Prefecture).
21.	11/2000	Technical Study : "Aerobic treatment of dyeing wastewaters in an SBR"
22.	8/2000	Technical Study : "Biological treatment of ship wastewaters in an SBR and design of a pilot-scale prototype"
23.	5/2000	Technical Study : "Adaptation of activated sludge for aerobic treatment of dyeing wastewaters"
24.	4/2000	Study for Permit of Sitting for a hydroelectric plant of 4.9 MW at Kalamas River, Municipality of Zitsa Ioannina.
25.	4/2000	Technical Study : "Assessment of biodegradability of dyeing wastewaters under aerobic conditions"
26.	3/2000	Technical Study : "Qualitative and quantitative characterization of dyeing wastewaters"
27.	3/2000	Environmental Impact Assessment (EIA) Study for a hydroelectric plant of 1 MW at Vouraikos River, Municipality of Diakopto (Achaia Prefecture)
28.	12/1999	Technical Study : "Design of a pilot plant and economic analysis for the production of electricity from RES with zero emissions"
29.	12/1999	Technical Study : "Design of a quality control and environmental protection center for SMEs of the food & drinks sector"
30.	12/1999	Environmental Impact Assessment (EIA) Study for ARALCO Ltd – manufacturing of spices, dairy products, sausages and delicacies
31.	11/1999	Study for Permit of Sitting for a hydroelectric plant of 3.9 MW at Ano Erymanthos River (Ilia Prefecture).
32.	11/1999	Study for Permit of Sitting for a hydroelectric plant of 4.8 MW at Kato Erymanthos River (Ilia Prefecture).
33.	11/1999	Study for Permit of Sitting for a hydroelectric plant of 2.7 MW at Ano Selinountas River (Achaia Prefecture).
34.	11/1999	Study for Permit of Sitting for a hydroelectric plant of 4.5 MW at Kato Selinountas River (Achaia Prefecture).
35.	11/1999	Study for Permit of Sitting for a hydroelectric plant of 1.9 MW at Manesaikos River (Achaia Prefecture).
36.	10/1999	Technical Study for Wastewater Treatment and Disposal of Treated Wastewaters for ARALCO Ltd – manufacturing of spices, dairy products, sausages and delicacies
37.	10/1999	Study for Permit of Sitting for a hydroelectric plant of 5.0 MW at Krathi River (Achaia Prefecture)
38.	12/1998	Study for Permit of Sitting for a hydroelectric plant of 1.0 MW in the town of Kleitoria (Achaia Prefecture).

39.	9/1998	Environmental Impact Assessment (EIA) Study for AVIGAL S.A – manufacturing of dairy products
40.	9/1998	Technical Study for Wastewater Treatment and Disposal of Treated Wastewaters for AVIGAL S.A – manufacturing of dairy products
41.	6/1998	Study for Permit of Sitting for AVIGAL S.A – manufacturing of dairy products
42.	5/1998	Technical Evaluation of the plant <i>"Municipal wastewater treatment plant for the municipality of Patras"</i>
43.	10/1997	Technical Study for Wastewater Treatment and Disposal of Treated Wastewaters for the piggery of A. Klavdianos
44.	5/1997	Technical Study : "Feasibility Study for the disposal and co-treatment of municipal wastewaters from the town Kato Kastritsi to the University of Patras' wastewater treatment plant"
45.	12/1996	Technical Study : "Evaluation of technologies for municipal solid wastes treatment – sitting of plants in Attica"
46.	12/1996	Technical Study : "Monitoring and evaluation of key ecological parameters of Koutavos Lagoon and terrestrial ecosystems in the area of Koutavos Lagoon at Kefalonia"
47.	9/1996	Technical Study : "Qualitative and quantitative characterization of the dyeing – finishing - laundry firm Alpha Epsilon and design of its wastewater treatment plant"
48.	5/1996	Environmental Impact Assessment (EIA) Study for Prokopos Lagoon (Achaia Prefecture)
49.	4/1996	Technical Study : "Optimum design of upgrading the cleaning and environmental protection municipal services of Chaidari city (Attica)"
50.	10/1995	Technical Evaluation of the offers for the construction of "Municipal wastewater treatment plant for the municipality of Nafpaktos"
51.	7/1995	Environmental Impact Assessment (EIA) Study for Patras' Marina

# **CITATIONS**

8474 citations (h-index=53) source: <u>www.scopus.com</u> (accessed on 19 October 2024).

**11202** citations (h-index=55) source : <u>https://scholar.google.gr/citations?user=CDJqSFwAAAAJ&hl=en</u> (accessed on 19 October 2024).

#### PATENTS

- Kornaros M., Zafiri C., Zagklis D., Tsigkou K., Manthos G. "Method for treating olive mill wastewater through a high-rate anaerobic digestion system for biogas production", OBI – Greek Patent No. 1010764, 2024.
- 2. Kornaros M., Andriopoulos V., Lamari F., Hatjiantoniou S.M., Gioni M. "Cultivation of microalgae for the production of extracts and biomass of high nutritional value", OBI Greek Patent No. 1010731, 2024.
- **3.** Kornaros M., Zagklis D., Manthos G. "Method to stabilize olive pomace by adding a suitable solution of reagents and homogenization", OBI Greek Patent No. 1010316, 2022.
- Kornaros M., Zafiri C., Tsigkou K., Tsafrakidou P., Zagklis D. "Waste treatment unit and pretreatment of disposable nappies for the recovery of reusable materials and the production of gaseous biofuels and soil improver", OBI – Greek Patent No. 1009924, 2021.
- 5. Kornaros M., Zafeiri K., Zaglis D. "Measurement setup for the estimation of the biochemical methanogenic potential of biomass samples", Patent Application to OBI No. 20230100319, 12.04.1023.