


PERSONAL INFORMATION



Mirko Cucina

 Institute for Agricultural and Forest Systems in the Mediterranean (ISAFOM-CNR)
Address: Via della madonna alta 128 - 06128 – Perugia (Italy)

 075 5014541  +393338579190

 mirko.cucina@cnr.it

 <https://www.cnr.it/people/mirko.cucina>

Male | 23/12/1988 | Italian

Enterprise	University	EPR
<input type="checkbox"/> Management Level	<input type="checkbox"/> Full professor	<input checked="" type="checkbox"/> Research Director and 1st level Technologist / First Researcher and 2nd level Technologist / Principal Investigator
<input type="checkbox"/> Mid-Management Level	<input type="checkbox"/> Associate Professor	<input type="checkbox"/> Level III Researcher and Technologist
<input type="checkbox"/> Employee / worker level	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

- 2023-current* Permanent Researcher at ISAFOM-CNR – First researcher
- 2022 (Nov-Dec)* Permanent Researcher at ISAFOM-CNR – Level III Researcher
- 2016-current* Consultant for domestic composting and scientific communicator for G.S.A. (Gestione Servizi Ambientali) Srl, Perugia
- 2023* Winner of the CNR Ban for Short Term Mobility (STM) Programme 2023. The STM was carried out from September 9 to September 30 at the facilities of Polytechnic University of Catalunya (GEMMA Research Group, Department of Civil and Environmental Engineering, Barcelona, Spain), developing the project “Agronomic valorization of anaerobic digestates from low-tech digesters – Valorizzazione agronomica di digestati anaerobici da digestori low-tech”
- 2023* Invited Research Stay at Universidad Industrial de Santander (Bucaramanga, Colombia) (July 31 – August 06, 2023).
- 2021-2023* Contract professor at Department of Environmental Sciences and Policy, University of Milan for the course “Waste Management and Sustainability” – CdLM in “Environmental Changes and Global Sustainability”
- 2020-2022* Post-doc researcher at Gruppo Ricicla, Department of Agricultural and Environmental Sciences, University of Milan
- 2020-2023* Honorary fellow in Agricultural Chemistry at Department of Agricultural and Environmental Sciences, University of Milan
- 2018-2019* Post-doc researcher at Department of Civil and Environmental Engineering, University of Perugia
- 2018-2020* Honorary fellow in Agricultural Chemistry at Department of Civil and Environmental Engineering, University of Perugia
- 2018-2020* Honorary fellow in Agricultural Chemistry at Department of Agricultural, Environmental and Food Sciences, University of Perugia
- 2016-2017* Post-doc researcher at Department of Civil and Environmental Engineering, University of Perugia
- 2016-2022* Chemistry teacher at Italian High Schools

EDUCATION AND TRAINING

- 2015* PhD visiting student (Erasmus+ program) at Polytechnic University of Catalonia (Barcelona, Spain).
- 2012-2016* PhD in “Environmental and Agricultural Sciences” at University of Perugia (SSD/AGR13, Agricultural Chemistry). Thesis’s title: “Assessing the energetic and agronomic reuse of a pharmaceutical organic waste”. Research activity conducted for the Environmental and Civil Engineering Department (Biomass chemistry Laboratory) at University of Perugia.

2010-2012	Master's degree in "Environmental and Agricultural Biotechnologies" (LM-7) at University of Perugia (110/110 cum laude). Thesis's title: "Anaerobic digestion of the solid organic fraction of municipal solid wastes: biogas production and molecular evolution of the process". Research activity conducted for the Environmental and Civil Engineering Department (Biomass chemistry Laboratory) at University of Perugia.
2007-2010	Degree in "Biotechnologies" at University of Perugia (110/110 cum laude). Thesis's title: "Microsatellites characterization in Cannabis sativa L.". Research activity conducted for the Agricultural, Environmental and Food Department at University of Perugia (Agricultural genetics laboratory).
2007	High school diploma in "Industrial chemistry" at Technological Industrial Institute "A. Volta" of Perugia (100/100 cum laude).

WORK ACTIVITIES

Scientific impact

Research activities resulted in 77 publications: 33 in ISI journals; 2 books/chapters in edited books; 2 scientific articles in refereed conference proceedings; 36 contributions in conference proceedings; 4 technical reports.

total Impact Factor (IF) (average IF/paper): 8,364

total number of citations: 769 (SCOPUS), 981 (Google Scholar)

H index: 15 (SCOPUS), 17 (Google Scholar)

publications in peer-review journals: 33

oral presentations in national and international conferences: 18

poster presentations in national and international conferences: 19

invited presentations: 2

Academic qualifications

National Scientific qualification as Full Professor in the Italian higher education system, in the call 2021/2023 (Ministerial Decree n. 553/2021 and 589/2021) for the disciplinary field of 07/E1 – Agricultural chemistry, agricultural genetics and pedology) achieved on November the 21st 2023.

National Scientific qualification as Associate Professor in the Italian higher education system, in the call 2021/2023 (Ministerial Decree n. 553/2021 and 589/2021) for the disciplinary field of 07/E1 – Agricultural chemistry, agricultural genetics and pedology) achieved on May the 30th 2022.

Editorial activity

More than 70 verified papers reviewed for international journals (Elsevier, Springer, MDPI)

Topic editor for Agronomy (MDPI) (Farming Sustainability)

Guest editor of 2 special issues in Agronomy (MDPI), 1 special issue in Recycling (MDPI) and 1 special issue in Sustainability (MDPI)

PERSONAL SKILLS

Mother tongue(s)

ITALIAN

Other language(s)

ENGLISH - C1 (self-assessment on listening, reading, writing, spoken interaction and production)
SPANISH - C1
GERMAN - A2

Job-related skills

Ability to initiate and secure research funding amounting. Project manager skills. Leadership role in enhancing research activity. Expertise in preparing technical reports and scientific articles.

Digital skills

Advanced knowledge of the Windows operating system and software of Office pack.

Other skills

Ability to project and realize small scale reactors for organic wastes and wastewaters treatment. Laboratory skills in chemistry and microbiology labs. Ability to carry out statistical analysis of data.

ADDITIONAL INFORMATION

Publications

Publications in international indexed journals:

1. The Performance of Biochar Waste-Derived Electrodes in Different Bio-Electrochemical Applications. Goglio, A., Carrara, A., Elboghdady, H. G. E., Cucina, M., Clagnan, E., Soggia, G., De Nisi, P. Adani, F. (2025). Journal of Power Sources, 625, 235623.
2. Vermifiltration as a green solution to promote digestate reuse in agriculture in small-scale farms. Cucina, M., Castro, L., Font-Pomarol, J., Escalante, H., Muñoz-Muñoz, A., Ferrer, I., & Garfí, M. (2024). Journal of Environmental Management, 368, 122164.
3. Effects of the application of microbiologically activated bio-based fertilizers derived from manures on tomato plants and their rhizospheric communities. Clagnan, E., Cucina, M., De Nisi, P., Dell'Orto, M., D'Imporzano, G., Kron-Morelli, R., ... & Adani, F. (2023). Scientific Reports, 13(1),

22478.

4. Microbial community acclimatization enhances bioplastics biodegradation and biogas production under thermophilic anaerobic digestion. Clagnan, E., Cucina, M., Sajgule, R. V., De Nisi, P., & Adani, F. (2023). *Bioresource Technology*, 390, 129889.
5. Integrating anaerobic digestion and composting to boost energy and material recovery from organic wastes in the Circular Economy framework in Europe: A review. Cucina, M. (2023). *Bioresource Technology Reports*, 101642.
6. *The lesser of two evils*: Enhancing biodegradable bioplastics use to fight plastic pollution requires policy makers interventions in Europe. Cucina, M. (2023). *Environmental Impact Assessment Review*, 103, 107230.
7. Thermo-alkaline pre-treatment operated by digestate improved biomethane production of bioplastic. Cucina, M., De Nisi, P., Adani, F. (2023). *Bioresource Technology Reports*, 101374.
8. Anaerobic digestion of organic waste allows recovering energy and enhancing the subsequent bioplastic degradation in soil. G. Papa, M. Cucina, P. De Nisi, K. Echchoucki, F. Adani. (2023). *Resources, Conservation & Recycling*, 188, 106694.
9. Evaluating Compost from Digestate as a Peat Substitute in Nursery for Olive and Hazelnut Trees. Calisti, R., Regni, L., Pezzolla, D., Cucina, M., Gigliotti, G., & Proietti, P. (2022). *Sustainability*, 15(1), 282.
10. Recovery of Energy and Nutrients from Mycotoxin-Contaminated Food Products through Biological Treatments in a Circular Economy Perspective: A Review. Cucina, M., & Tacconi, C. (2022). *Agronomy*, 12(12), 3198.
11. Integration of anaerobic digestion and composting allows safety recovery of energy and nutrients from AFB1 contaminated corn. Cucina, M., Tacconi, C., Gigliotti, G., & Zadra, C. (2022). *Journal of Environmental Chemical Engineering*, 108356.
12. Degradation of biodegradable bioplastics under thermophilic anaerobic digestion: A full-scale approach. Cucina, M., Carlet, L., De Nisi, P., Somensi, C. A., Giordano, A., Adani, F. 2022. *Journal of Cleaner Production*, 133232.
13. Assessing the anaerobic degradability and the potential recovery of biomethane from different biodegradable bioplastics in a full-scale approach. Cucina M, Soggia G, De Nisi P, Giordano A, Adani F. 2022. *Bioresource Technology* (354), 127224.
14. New Advances on Nutrients Recovery from Agro-Industrial and Livestock Wastes for Sustainable Farming. Cucina M, Regni L. 2021. *Agronomy*. 11(11), 2308.
15. The Use of New Parameters to Optimize the Composting Process of Different Organic Wastes. Pezzolla, D., Cucina, M., Proietti, P., Calisti, R., Regni, L., Gigliotti, G. 2021. *Agronomy*, 11(10), 2090.
16. Benefits and risks of agricultural reuse of digestates from plastic tubular digesters in Colombia. Cucina, M., Castro, L., Escalante, H., Ferrer, I., Garfi, M. *Waste Management*, 2021, 134.
17. Degradation of bioplastics in organic waste by mesophilic anaerobic digestion, composting and soil incubation. Cucina, M., De Nisi, P., Trombino, L., Tambone, F., Adani, F. *Waste Management*, 2021, 134, pp. 67–77
18. Anaerobic co-digestion of a lignocellulosic residue with different organic wastes: Relationship between biomethane yield, soluble organic matter and process stability. Cucina, M., Pezzolla, D., Tacconi, C., Gigliotti, G. *Biomass and Bioenergy*, 2021, 153, 106209
19. The role of waste management in reducing bioplastics' leakage into the environment: A review. Cucina, M., de Nisi, P., Tambone, F., Adani, F. *Bioresource Technology*, 2021, 337, 125459
20. Pretreatments for enhanced biomethane production from buckwheat hull: effects on organic matter degradation and process sustainability. Mirko Cucina, Daniela Pezzolla, Chiara Tacconi, Giovanni Gigliotti. *Journal of Environmental Management* (2021) 285, 112098.
21. Environmental consequences of the treatment of corn contaminated by aflatoxin B1 with co-digestion and co-composting in a life cycle perspective. Francesco Di Maria, Federico Sisani, Giovanni Gigliotti, Daniela Pezzolla, Chiara Tacconi, Mirko Cucina and Claudia Zadra. *Environmental Science and Pollution Research*, (2020). doi.org/10.1007/s11356-020-11372-0.
22. Benefits and risks of long-term recycling of pharmaceutical sewage sludge on agricultural soil. Cucina, M., Ricci, A., Zadra, C., Pezzolla, D., Tacconi, C., Sordi, S., Gigliotti, G. *Science of The Total Environment*, (2019), 695, 133762.
23. Plant nutrients recovery from aflatoxin B1 contaminated corn through co-composting. Tacconi, C., Cucina, M., Zadra, C., Gigliotti, G., Pezzolla, D. *Journal of Environmental Chemical Engineering*, (2019), 103046.
24. Effect of the mycotoxin aflatoxin B1 on a semi-continuous anaerobic digestion process. Tacconi, C., Cucina, M., Pezzolla, D., Zadra, C., Gigliotti, G. *Waste Management* 78 (2018), 468-473.
25. Valorization of a pharmaceutical organic sludge through different composting treatments. Cucina, M., Tacconi, C., Sordi, S., Pezzolla, D., Gigliotti, G., & Zadra, C. *Waste Management* 74 (2018), 203-212.
26. Evaluation of benefits and risks associated with the agricultural use of organic wastes of pharmaceutical origin. M. Cucina, C. Tacconi, A. Ricci, C. Zadra, S. Sordi, D. Pezzolla, G. Gigliotti. *Science of the Total Environment* 613-614 (2018), 773-782.
27. Recovery of energy and plant nutrients from a pharmaceutical fermentative biomass: Integration of anaerobic digestion and composting. M. Cucina, C. Zadra, M.C. Marcotullio, S. Sordi, M. Curini, G. Gigliotti. *Journal of Environmental Chemical Engineering* 5 (2017), 3051-3057.
28. Assessing the agricultural reuse of digestates from microalgae anaerobic digestion and co-digestion with sewage sludge. M. Solé, M. Cucina, M. Folch, J. Tapias, V. Matamoros, M. Garfi,

- G. Gigliotti, I. Ferrer. *Science of the Total Environment* 586 (2017), 1-9.
29. Assessing the aptitude of aflatoxin B1 contaminated corn to anaerobic digestion. C. Tacconi, A. Sordi, M. Cucina, C. Zadra, G. Gigliotti. *International Society for Environmental Biotechnology, Proceedings of the 10th International Society for Environmental Biotechnology Conference*; ISBN: 978-84-608-6277-2.
 30. Assessing the composting aptitude of a pharmaceutical sludge. M. Cucina, C. Tacconi, A. Sordi, C. Zadra, S. Sordi, G. Gigliotti. *International Society for Environmental Biotechnology, Proceedings of the 10th International Society for Environmental Biotechnology Conference*; ISBN: 978-84-608-6277-2.
 31. Co-digestion of increasing amounts of fruit and vegetable waste in sludge digesters: chemical and spectroscopic investigation by fluorescence and fourier transform infrared spectroscopy. Maria Rosaria Provenzano, Ornella Cavallo, Anna Daniela Malerba, Francesco Di Maria, Mirko Cucina, Luisa Massaccesi and Giovanni Gigliotti. *Waste Management* 50 (2016), 283-289.
 32. Co-treatment of fruit and vegetable waste in sludge digesters. An analysis of the relationship among bio-methane generation, process stability and digestate phytotoxicity. Di Maria F, Sordi A, Cirulli G, Gigliotti G, Massaccesi L, Cucina M. *Waste Management* 34 (2014) 1603-1608.
 33. Chemical characterisation of percolate and digestate during the hybrid solid anaerobic digestion batch process. L. Massaccesi, A. Sordi, C. Micale, M. Cucina, C. Zadra, F. Di Maria, G. Gigliotti. *Process Biochemistry* 48 (2013) 1361–1367.

Invited presentations:

1. Utilización agronómica del digerido de digestores de bajo costo en Latinoamérica: beneficios y riesgos. M. Cucina. Keynote speech. SemANAEROBIA: Un espacio para compartir experiencias sobre la gestión del digerido, Bucaramanga, Colombia, 01-04 Agosto 2023.
2. Utilizo agronomico del biol. M. Cucina. Keynote speech. XIV Encuentro de la RedBioLAC, Lima, Perú, 21-25 Noviembre 2022.

Contributions in national and international conferences (oral and poster presentations):

1. Composting different agri-industrial wastes with biochar: optimized lab-scale trials assessing ammonia emission and mass balance. Roberto Altieri, Vitale Stanzone, Mirko Cucina, Piero Ciccio, Alessandro Esposito. Poster presentation. ECOMONDO, The green technology expo. 5-8 November 2024, Rimini, Italy.
2. Volatile Organic Compounds (VOCs) emitted during the composting phase of different agricultural wastes. Piero Ciccio, Roberto Altieri, Vitale Stanzone, Mirko Cucina, Alessandro Esposito, Walter Stefanoni, Paolo Ciccio, Emanuele Pallozzi. Poster presentation. ECOMONDO, The green technology expo. 5-8 November 2024, Rimini, Italy.
3. Lab-scale optimization of co-composting agri-industrial effluents with biochar to reduce ammonia emissions and save water and energy. Altieri Roberto, Cucina Mirko, Esposito Alessandro. Poster presentation. L'innovazione a servizio dell'economia circolare: lo Spoke 8 di Agritech. 6 September 2024, Milan, Italy.
4. Integration of biochar in psychrophilic anaerobic digestion: effect on the digestate. Alexander Muñoz, Cirley Borrero, Yely Cruz, Liliana Castro, Humberto Escalante, Nelson Rodríguez, Mirko Cucina. Oral presentation. 18th IWA World Conference on Anaerobic Digestion. 2-6 June 2024, Istanbul, Türkiye.
5. Application of digestate from rural anaerobic digesters for degraded soil restoration in Colombia. M. Cucina, L. Massaccesi, M. Garfi, D. Medina Medina, A. Munoz Munoz, H. Escalante, J. Marti-Herrero, L. Castro. Poster presentation. Centennial IUSS World Congress, 19-21 May 2024, Florence, Italy.
6. Characterization of bioplastic degrading microbial communities using biomolecular techniques. R.V. Sajgule, E. Clagnan, M. Cucina, F. Adani. Poster presentation. AGRIFOODPLAST, 1st International Conference on micro- and nano-plastics in the agri-food chains, 10-12 September 2023. Piacenza, Italy.
7. Impacts of microbiologically activated bio-based fertilizers derived from manure on tomato plants and their rhizospheric communities. E. Clagnan, M. Cucina, P. De Nisi, M. Dell'Orto, G. D'Imporzano, R.K. Morelli, F. Adani. Poster presentation. Bioresource Technology for bioenergy, Bioproducts & Environmental Sustainability 4th International Conference, 14-17 May 2023. Lake Garda, Italy.
8. Production and assessment of biological activated bio-based fertilizers in the frame of FERTIMANURE H2020 project. P. De Nisi, M. Cucina, E. Clagnan, F. Adani. Poster Presentation. XL Congress of Italian Society of Agricultural Chemistry, 5-7 September 2022. Pisa, Italy.
9. CO₂ electro-recycling and energy production: a comparison between naturally doped biochar-base electrodes. A. Goglio, H. Elboghdady, A. Carrara, M. Cucina, F. Adani. Poster presentation. ISMET8 - International Society for Microbial Electrochemistry and Technology - GLOBAL CONFERENCE, September 2022. Chania, Greece.
10. Characterization of digestates from low-cost digesters in Colombia. L. Castro, H. Escalante, A. Munoz, M. Cucina, I. Ferrer, M. Garfi. Poster presentation. 17th World Congress on Anaerobic Digestion, June 2022. Ann Arbor, Michigan, USA.
11. Current situation of manure production and management in EU. Nutrient imbalance analysis in six European countries. M. Zilio, M. Jorba, G. Ramis, M. Cucina, A. Herrera, E.A.N. Marks, F. Adani, C. van Dijk, O. Schoumans. Oral presentation. International conference on manure management and valorization (MANUREOURCE), May 2022. Den Bosch, The Netherlands.

12. Calidad y propiedades de un digerido procedente de la digestión anaerobia de estiércol bovino en condiciones psicrófilas. A. Munoz, M. Cucina, L. Castro, H. Escalante, A. Garfi, I. Ferrer. Poster. First international congress in biotechnology and neotropical ecosystems, CIBEN 2021, 20-22 October 2021, Virtual Event.
13. The role of waste management in reducing bioplastics' leakage in the environment. M. Cucina, P. De Nisi, F. Tambone, F. Adani. Oral presentation. Second Joint Meeting on Soil and Plant System Sciences, 20-23 September 2021, Torino, Italy.
14. The increasing amount of bioplastics rises challenges in the management of organic municipal solid wastes through biological systems. M. Cucina, P. De Nisi, F. Tambone, F. Adani. Oral presentation. 5th MatER Meeting together + 6th International Conference on Final Sinks, 7-9 June 2021, Piacenza, Italy.
15. Compatibility of Bioplastic with Waste Management: an experimental approach. M. Cucina, P. De Nisi, F. Tambone, F. Adani. Presentazione orale. International Conference on Biotechnology for Sustainable Agriculture, Environment and Health (BSAEH-2021), 4-8 Aprile 2021, Jaipur, India.
16. Il trattamento anaerobico di biomasse agro-zootecniche per la produzione di energia e fertilizzanti organici. G. Gigliotti, M. Cucina, D. Pezzolla, C. Tacconi, A. Ricci. Oral presentation. "Consapevolezza del rischio e cultura della sicurezza", Consorzio Interfacoltà per l'ambiente, Giornata Mondiale dell'Ambiente, 5 June 2019. Isola Polvese, Perugia, Italy.
17. Le attività del Laboratorio di Chimica delle biomasse di uso agrario. G. Gigliotti, M. Cucina, D. Pezzolla, A. Ricci. Poster. "Consapevolezza del rischio e cultura della sicurezza", Consorzio Interfacoltà per l'ambiente, Giornata Mondiale dell'Ambiente, 5 June 2019. Isola Polvese, Perugia, Italy.
18. Digestione anaerobica della pula di grano saraceno: effetto di pretrattamenti e codigestione sulla resa di biometanazione. M. Cucina, C. Tacconi, A. Di Giorgio, O. Francioso, D. Pezzolla, C. Zadra, G. Gigliotti. Oral presentation. Italian Society of Agricultural Chemistry Congress (SICA), 2018. Reggio Calabria, Italy.
19. Benefits and risks of organic amendments obtained through biological treatment of wastes and by-products. D. Pezzolla, M. Cucina, C. Tacconi, A. Ricci, C. Zadra, G. Gigliotti. Oral presentation. European Geosciences Union (EGU) Congress, 2018. Wien, Austria.
20. Long term effects of pharmaceutical sludge application on soil properties: a 17 years long case of study. M. Cucina, D. Pezzolla, C. Tacconi, S. Sordi, C. Zadra, G. Gigliotti. Poster. European Geosciences Union (EGU) Congress, 2018. Wien, Austria.
21. Digestione anaerobica dello scarto di lavorazione del grano saraceno: effetto dei pretrattamenti e valutazioni energetiche. M. Cucina, C. Tacconi, A. Di Giorgio, D. Pezzolla, O. Francioso, G. Gigliotti. Poster. Italian Society of Agricultural Chemistry Congress (SICA), 2017. Udine, Italy.
22. Effetto di concentrazioni crescenti di AFB1 su un processo di digestione anaerobica semi-continuo: stabilità del processo, degradazione della micotossina e qualità del digestato. C. Tacconi, M. Cucina, D. Pezzolla, C. Zadra, G. Gigliotti. Oral presentation. Italian Society of Agricultural Chemistry Congress (SICA), 2017. Udine, Italy.
23. Valorization of Aflatoxin B1 contaminated corn through composting. C. Tacconi, M. Cucina, D. Pezzolla, C. Zadra, G. Gigliotti. Poster. International Society of Humic Substances Congress (ISHS). 06-09 June 2017. Siracusa, Italy.
24. Recovery of energy and plant nutrients from Aflatoxin B1 contaminated corn through biological treatments. D. Pezzolla, C. Tacconi, M. Cucina, C. Zadra, G. Gigliotti. International Society of Humic Substances Congress (ISHS). 06-09 June 2017. Siracusa, Italy.
25. Il ruolo dell'analisi elementare del C in soluzione nella valutazione di processi biotecnologici per il trattamento dei rifiuti. M. Cucina. Oral presentation. Conference: "Determinazione di CHNS: elementi fondamentali nel laboratorio analitico". 30 May 2017. Mosciano Sant'Angelo (TE), Italia.
26. Ammendamento pluriennale con fanghi di depurazione di origine farmaceutica: influenza sulle proprietà chimiche e biochimiche del suolo. M. Cucina, C. Tacconi, C. Zadra, S. Sordi, V. Piergianni, G. Gigliotti. Poster. Italian Society of Agricultural Chemistry Congress (SICA), 2016. Perugia, Italy.
27. Ammendanti organici derivati da un rifiuto organico di origine farmaceutica: rischi e benefici. M. Cucina, C. Tacconi, D. Pezzolla, C. Zadra, S. Sordi, G. Gigliotti. Poster. Italian Society of Agricultural Chemistry Congress (SICA), 2016. Perugia, Italy.
28. Valutazione dell'attitudine al compostaggio di fanghi di depurazione di origine farmaceutica. M. Cucina, C. Tacconi, D. Pezzolla, C. Zadra, S. Sordi, V. Piergianni, G. Gigliotti. Poster. Italian Society of Agricultural Chemistry Congress (SICA), 2016. Perugia, Italy.
29. Valutazione della possibilità di recupero di mais contaminato da aflatoxina B1 attraverso la digestione anaerobica. C. Tacconi, A. Sordi, D. Pezzolla, M. Cucina, C. Zadra, G. Gigliotti. Poster. Italian Society of Agricultural Chemistry Congress (SICA), 2016. Perugia, Italy.
30. Assessing the aptitude of aflatoxin B1 contaminated corn to anaerobic digestion. C. Tacconi, A. Sordi, M. Cucina, C. Zadra, G. Gigliotti. Poster. International Society of Environmental Biotechnology (ISEB) Congress. 1-3 June 2016. Barcelona, Spain.
31. Assessing the composting aptitude of a pharmaceutical sludge. M. Cucina, C. Tacconi, A. Sordi, C. Zadra, S. Sordi, G. Gigliotti. Poster. International Society of Environmental Biotechnology (ISEB) Congress. 1-3 June 2016. Barcelona, Spain.
32. Agricultural reuse of the digestate from micro-algae anaerobic digestion and co-digestion with sewage sludge. Solé M, Cucina M, Folch M, Tàpies J, Matamoros V, Garfi M, Ferrer I. Oral presentation. Recycling of Agricultural, Municipal and Industrial Residues in Agriculture Network (RAMIRAN) Congress. 8-10 September 2015. Hamburg, Germany.

33. Organic amendments derived from a pharmaceutical by-product: benefits and risks. Gigliotti G., Cucina M., Zadra C., Pezzolla D., Sordi S., Marcotullio M.C., Curini M. Oral presentation. European Geosciences Union Congress (EGU), 2015. Wien, Austria.
34. Ottenimento di un ammendante compostato misto da sottoprodotti dell'Industria Farmaceutica: problematiche ed opportunità. M. Cucina, C. Zadra, M. Marcotullio, M. Curini, G. Gigliotti. Oral presentation. Italian Society of Agricultural Chemistry Congress (SICA), 2014. Bolzano, Italy.
35. Co-digestion of sewage sludge and organic fraction of municipal solid waste (OFMSW): analysis of biogas production and digestate and ingestate organic quality. F. Di Maria, G. Gigliotti, A. Sordi, G. Cirulli, M. Cucina, L. Massaccesi. Oral presentation. Congress BCD, 2013. Bari, Italy.
36. Caratterizzazione chimica del percolato e del digestato durante un processo di digestione anaerobica ibrida in batch (HSADB). L. Massaccesi, A. Sordi, C. Micale, M. Cucina, C. Zadra, F. Di Maria, G. Gigliotti. Poster. Italian Society of Agricultural Chemistry Congress (SICA), 2013. Bari, Italy.
37. Variazioni nelle caratteristiche chimiche della sostanza organica solubile in acqua durante un processo di digestione anaerobica allo stato solido in batch. L. Massaccesi, A. Sordi, M. Cucina, C. Zadra, F. Di Maria, G. Gigliotti. Oral presentation. Italian Society of Agricultural Chemistry Congress (SICA), 2012. Milan, Italy.

Technical reports:

1. Mass and energy balance of the on-farm pilots to WP5. M. Cucina, F. Adani, X. You, J.M. de Gregorio, N. Guerra, M. Mora, L. Llenas, I. Sigurnjak, R. Vingerhoets, E. Meers, O. Schoumans, K. Van Dijk, N. Thevenin, L. Ruidavets, S. Schönfeld. FERTIMANURE H2020 project deliverable (D2.3) (June 2022).
2. Report on the nutrient imbalance analysis. M. Cucina, F. Adani, M. Zilio, A. Herrera. FERTIMANURE H2020 project deliverable (D1.4) (January 2021).
3. BBFs production and characterization vs. time (list, average composition and composition variability). M. Cucina, F. Adani. FERTIMANURE H2020 project deliverable (D2.2) (December 2020).
4. Process and technologies specification and set up to produce BBFs from animal manure. M. Cucina, F. Adani. FERTIMANURE H2020 project deliverable (D2.1) (December 2020).

Books/Chapters in books:

1. New Advances on Nutrients Recovery from Agro-Industrial and Livestock Wastes for Sustainable Farming. Ed. Mirko Cucina, Luca Regni. Editore MDPI Agronomy, December 2021. ISBN 978-3-0365-2564-8.
2. Relazione botanica ambientale e chimica agraria. G. Gigliotti, A. Ranfa, D. Pezzolla, A. Ricci, M. Cucina, L. Ruga. In "Monumento funerario della sacerdotessa Mamia a Pompei", pp. 99-106. Editore "L'Erma" di Bretschneider. ISBN: 9788891321831.

Projects

1. Bando scientifico MAECI-MOST 2024-2026. Coordinator and PI for CNR-ISAFOM. Project: "Novel advanced biofertilizers from spent FERmentative BIOMasses for enhancing agriculture circularity and SOIL health – FERBIOSOIL", 2025-2027. Budget: 300.000,00 €
2. Centre de Cooperació per el Desenvolupament – Universitat Politècnica de Catalunya (CCD2023-B001). Principal investigator for CNR-ISAFOM. Project: "Sustainability assessment of low-tech digesters for biogas and biofertilizer production in Colombia", 2023-2024. Budget: 16.500 €
3. European Commission H2020 call 3.2.4.1 Project manager for University of Milan. Project: "Innovative nutrient recovery from secondary sources – Production of high-added value FERTIlisers from animal MANURE (FERTIMANURE)", 2020-2022. Budget: 8.394.170,75 €
4. Centre de Cooperació per el Desenvolupament – Universitat Politècnica de Catalunya (CCD2021-J004). Principal investigator for University of Milan. Project: "Resources recovery from wastewater: small-scale digesters for biogas and biofertilizer production in Colombia", 2021-2022. Budget: 11.500 €
5. Centre de Cooperació per el Desenvolupament – Universitat Politècnica de Catalunya (CCD2018-U003). Principal investigator for University of Milan. Project: "Improving sustainable sanitation and energy access in rural areas of Peru and Colombia: constructed wetlands and small-scale digesters", 2020-2021. Budget: 10.948 €
6. Regione Umbria - Programma di Sviluppo Rurale 2014-2020. Project manager for Department of Civil and Environmental Engineering, University of Perugia. Project: "Valorizzazione delle risorse legnose e dei sottoprodotti agricoli e forestali, attraverso la creazione di un modello di piattaforme logistiche per la produzione e la commercializzazione di prodotti energetici (AGREEGREEN)", 2018-2019. Budget: 199.988,55 €

Other Relevant Information

1. Co-Supervisor of 5 master thesis at Italian Universities.
2. Co-Supervisor of 1 PhD student (Doctorate school University of Milan, 2023-2025).
3. Member of the Network for Biodigesters in Latin America and the Caribbean (RedBioLAC).
4. Member of the Working Group "How to improve the technology and management of low-tech anaerobic digesters" of the International Water Association (IWA).
5. Scientific responsible for CNR of the framework agreement of collaboration between CNR-

ISAFOM and GSA srl for the development of scientific, consultancy, communication and environmental teaching activities signed on 02/20/2023.

6. Scientific responsible for CNR of the framework agreement of collaboration between CNR-ISAFOM and BIOREPACK for the development of scientific activities and research on the topic of bioplastics degradation during waste management and in soi signed on 10/22/2024.

7. Evaluator of 1 Master Thesis and 1 PhD Thesis at Colombian Universities.

Perugia, 05/12/2024

Dr. Mirko Cucina

