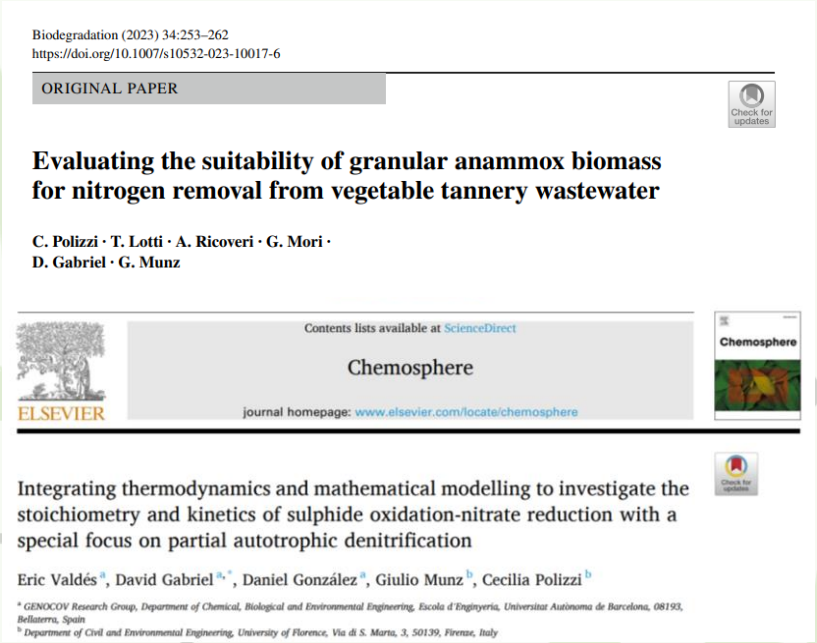
Two fresh new Open Access papers published by the RECYCLES consortium

We are glad to announce two new **RECYCLES Open Access publications**, both derived from the fruitful collaboration between our two project partners **Università degli Studi di Firenze (UNIFI)** and **Universitat Autònoma de Barcelona (UAB)**.



Biodegradation (2023) 34:253–262
https://doi.org/10.1007/s10532-023-10017-6

ORIGINAL PAPER

Evaluating the suitability of granular anammox biomass for nitrogen removal from vegetable tannery wastewater

C. Polizzi · T. Lotti · A. Ricoveri · G. Mori · D. Gabriel · G. Munz

Contents lists available at ScienceDirect

Chemosphere

journal homepage: www.elsevier.com/locate/chemosphere

Integrating thermodynamics and mathematical modelling to investigate the stoichiometry and kinetics of sulphide oxidation-nitrate reduction with a special focus on partial autotrophic denitrification

Eric Valdés [a], David Gabriel [a,*], Daniel González [a], Giulio Munz [b], Cecilia Polizzi [b]

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You have free access to them through the links below:

https://link.springer.com/article/10.1007/s10532-023-10017-6

https://www.sciencedirect.com/science/article/pii/S0045653523018726?via%3Dihub

Congratulations to the authors!

Great success on the RECYCLES mid-term meeting!

During the 15th, 16th and 17th of May 2023, the **RECYCLES Consortium** and the European Research Executive Agency's **Project Officer** met at **Universitat Autònoma de Barcelona** to share, discuss and evaluate the project progress, development and implementation.

Check the details of the meeting at the RECYCLES website

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 872053.

Stay tuned and follow all the updates of the RECYCLES project

The RECYCLES consortium manages different **tools for the promotion and dissemination** of all the activities and actions related to the project:

https://recycles-h2020.eu/ @RecyclesEU

@recycleseu Recycles Recycles EU

Professor David Gabriel visits Prince of Songkla University in Thailand

David Gabriel, Professor at the Department of Chemical, Biological & Environmental Engineering of the **Universitat Autònoma de Barcelona (UAB)**, has visited **Prince of Songkla University (PSU)** during summer 2023. Along his research stay, different topics such as the continuation of **bioreactors development for the sulphide autotrophic denitrification** or for the **hydrogenotrophic biomethanation** have been covered, together with scientific discussions about future RECYCLES publications.

UNIFI receives the visit of Professor Boonya Charnock from PSU

Professor **Boonya Charnnok** from **Prince of Songkla University (PSU)** is being seconded for 3 months and a half at **Università degli Studi di Firenze (UNIFI)**, working on the design of **novel treatment trains for wastewater treatment facilities** including resource recovery from wastewaters and sludge, evaluating the applicability and the advantages of the investigated novel treatment trains and processes **through experimental testing and data elaboration**, as foreseen in RECYCLES WP4 – Analysis of treatment trains.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 872053.

Research stay from Serena Falcioni at AERIS Tecnologías Ambientales S.L.

Serena Falcioni, shared PhD student from **Università degli Studi di Firenze** and **Universitat Autònoma de Barcelona**, is developing a four-month secondment in **AERIS Tecnologías Ambientales S.L.**, aiming at **assessing** the **activity** and the **enrichment of PHA-accumulating microorganisms** through respirometry techniques, with the final objective of **recovering PHA from high-salinity wastewaters**.

Professor Sumate Chaiprapat and PhD student Ajchareeya Manmeen from PSU, seconded at UNIFI

As a result of the fruitful collaboration between **Prince of Songkla University (PSU)** and **Università degli Studi di Firenze (UNIFI)**, Professor **Sumate Chaiprapat** and PhD student **Ajchareeya Manmeen** have been seconded one and five months, respectively, from **PSU** to **UNIFI**. Among their tasks, Prof. **Sumate Chaiprapat** continued with the **modelling work** conducted by Prawit Kongjang during his previous secondment at **UNIFI**, while **Ajchareeya Manmeen** collaborated with Professor Giulio Munz and Serena Falcioni in the **operation and monitoring** of a bench-scale **bioreactor** for the **recovery of PHA from high-saline wastewaters** for its further **evaluation** through **mathematical modelling**.

Francesco Pasciucco continued the development of the LCA on biological treatment trains

During spring 2023, Francesco Pasciuco, PhD student from **Università di Pisa**, has been seconded in Barcelona to collaborate with **AERIS Tecnologías Ambientales, S.L.** and **Universitat Autònoma de Barcelona** into implementing **Life Cycle Analysis (LCA) and Life Cycle Costing (LCC)** on a RECYCLES suggested treatment train for **combustion gases treatment and valorisation**, which consists on adding a **two-step biological process after the absorption of SOx** – anaerobic sulfate reduction in a UASB reactor followed by sulfide partial oxidation in a CSTR reactor– for the **recovery of biosulfur** and the **production of biogas**.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 872053.

The RECYCLES Consortium

Eight different international partners from both academia and industrial sectors conform the RECYCLES Consortium, all with a high expertise in different fields, what enlarges the technical and scientific capabilities of the RECYCLES Consortium.

By clicking on the partners logos, you will find out more information about them and their activities.

Next RECYCLES newsletter

The next RECYCLES newsletter will be online in January 2024, gathering all the information related to the activities performed within the RECYCLES project, stay tuned!

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