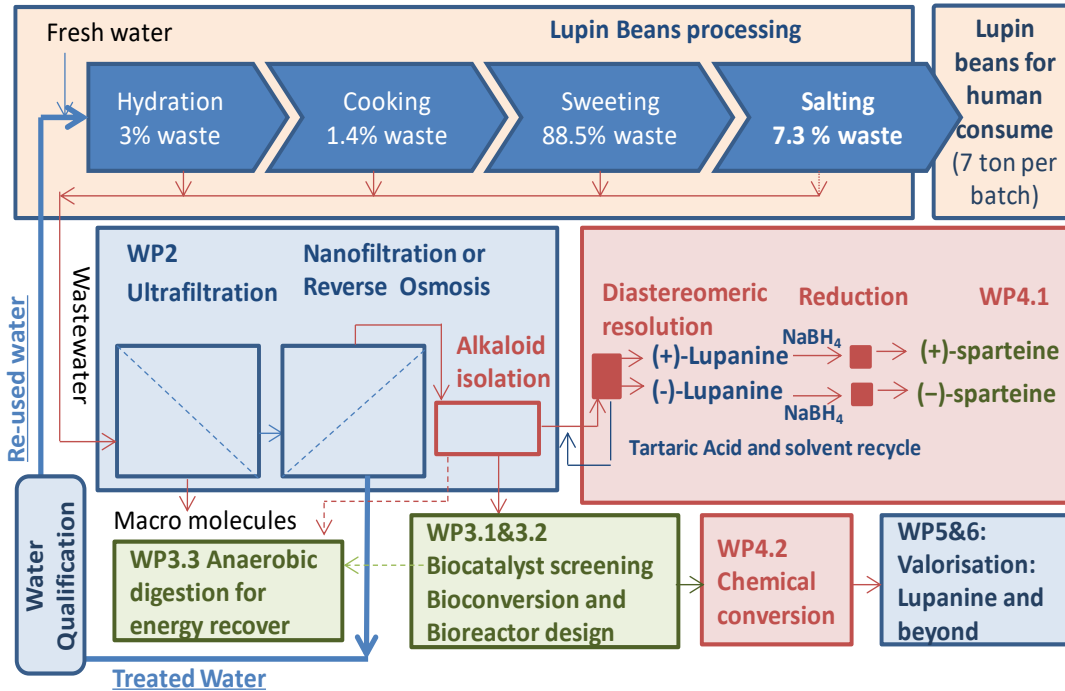


Closing the loop on valorization of food processing wastewater containing alkaloids: the lupanine case

7th May 2018



Food processing industry uses a large volume of fresh water to deliver safe food for humanity. The resulting wastewater, a stream rich in organic natural compounds, is usually disposed in public sewers or using different suboptimal solutions.

The need for more sustainable solutions, in a circular economy perspective, fosters the development of new processes able to recover valuable compounds, water included, closing the loop.

The workshop will present how to confront with alkaloids containing food wastewater. A far reaching concept in which alkaloids are isolated and converted into building blocks of value for pharmaceutical and chemical industries, compensating for water detoxification costs will be debated. Lupanine is used as a particular example to illustrate this concept, and the preliminary results from the Biorg4WasteWaterVal+ project (H2020 Water works 2014) will be presented. Delegates from the Department of Environment and the Wastewater treatment plant of Limassol will present the national

strategy and current facilities for wastewater treatment in Cyprus.

When: 7 May 2018

Where: Senate Room, Senate Building, Cyprus University of Technology, 31 Archiepiskopou Kyprianou Street, 3036 Limassol

Time: 9:00 - 12:40

Contact: michail.koutinas@cut.ac.cy

Tel: [+35725002067](tel:+35725002067)

Program

- 9:00-9:15 Registration
- 9.15-9:35 Alkaloids in food and feed: possibilities of conversion into added value compounds (Prof. C. Afonso)
- 9.35-9:55 The Biorg4WasteWaterVal+ project: an integrated approach (Dr. F. Ferreira)
- 9.55-10:15 Wastewater management in Limassol (Sewerage Board of Limassol-Amathus)
- 10:15-10:35 The Cypriot policy for wastewater treatment (Department of Environment)
- 10.35-10:55 Screening for biocatalysts producing added-value commodities from alkaloids: the case of lupanine (Dr. M. Koutinas)
- 10.55-11:20 Coffee break
- 11.20-11:40 Membrane adsorber development (Dr. T. Schafer)
- 11.40-12:00 Membrane separation design and validation (Dr. F. Ferreira and Prof. F. Malpei)
- 12.00-12:20 Energy recovery through biogas production (Prof. F. Malpei)
- 12.20-12:40 Discussion and conclusions

Partners:

Faculty of Pharmacy, University of Lisbon

Associação do Instituto Superior Técnico para a Investigação e Desenvolvimento, University of Lisbon

Basque Centre for Macromolecular Design & Engineering (Basque Excellence Research Centre)

Cyprus University of Technology

Politecnico di Milano

A Tremoceira Estrela da Piedade (TEP)

Collaborative partners:

University of Vienna

Madama Oliva

