Aristotle University of Thessaloniki

UNIVERSITÀ DEGLI STUDI DELL'INSUBRIA

UNIVERSITÀ DEGLI STUDI DI BRESCIA

UNIVERSITÀ DI PAVIA

Webinar

Water treatment technologies and options for circular economy

organized by the Division of Environment, Health and Safety at Work of the Association of Greek Chemists together with Universities of Thessaloniki, Insubria, Brescia and Pavia (Prof. Ioannis Katsoyiannis, Prof. Vincenzo Torretta, Prof. Giorgio Bertanza)

Date: 27 October, 10:00-13:30 CET

Link to the webinar:
https://authgr.zoom.us/j/93619487484

Chairman: Prof. Ioannis Katsoyiannis

PROGRAM

10:00 – 10:10

Initial greeting addresses:

Ioannis Katsoyiannis Aristotle University of Thessaloniki, Department of Chemistry & Division of Environment, Health and Safety at Work of the Association of Greek Chemists, Email: katsogia@chem.auth.gr)

Vincenzo Torretta University of Insubria, Department of Theoretical and Applied Sciences, Varese, Italy, Email: vincenzo.torretta@uninsubria.it)

Giorgio Bertanza University of Brescia and University of Pavia, Department of Civil, Environmental, Architectural Engineering and Mathematics, Email: giorgio.bertanza@unibs.it

Circular economy section

10:10 – 10:20

From Wastewater Treatment Plants (WWTPs) to Wastewater Resources Recovery Facilities (WRRFs): is it possible?

M.C. Collivignarelli*, S. Calatroni *, M. Carnevale Miino*

* Department of Civil Engineering and Architecture - Hydraulic and Environmental Engineering Section, University of Pavia, Email: silvia.calatroni01@universitadipavia.it

10-20 – 10:35

Applications of photoelectrochemical catalysis on TiO_2 in a circular economy perspective

M.C. Collivignarelli*, M. Carnevale Miino*, M. Bestetti°, S. Franz°

* Department of Civil Engineering and Architecture - Hydraulic and Environmental Engineering Section, University of Pavia
°Department of Chemistry, Materials and Chemical Engineering “Giulio Natta”, Politecnico di Milano,
Email: marco.carnevalemiino01@universitadipavia.it

10:35 – 10:45

Evaluation of vegetable species as treatment for wastewater from low-income suburbs and artisanal and small-scale gold mines, case studies: Venezuela and Colombia

F.H. Gomez Tovar*, S. Sorlini

*Department of Civil, Environmental, Architectural Engineering and Mathematics, University of Brescia, Email: franco.gomez@unibs.it

Circular economy section

10:45 – 11:00

Thermophilic aerobic membrane reactor for sludge minimization and valorisation of its residues

M.C. Collivignarelli*, M. Carnevale Miino*, F.M. Caccamo*, A. Abbà^

* Department of Civil Engineering and Architecture -Hydraulic and Environmental Engineering Section, University of Pavia, Email: francescamaria.caccamo01@universitadipavia.it

^Department of Civil, Environmental, Architectural Engineering and Mathematics, University of Brescia,

11:00 – 11:15

Techno-economic-environmental implications of WWTP retrofitting for resource recovery

G. Bertanza^

^Department of Civil, Environmental, Architectural Engineering and Mathematics, University of Brescia, Email: giorgio.bertanza@unibs.it

11:15-11:30

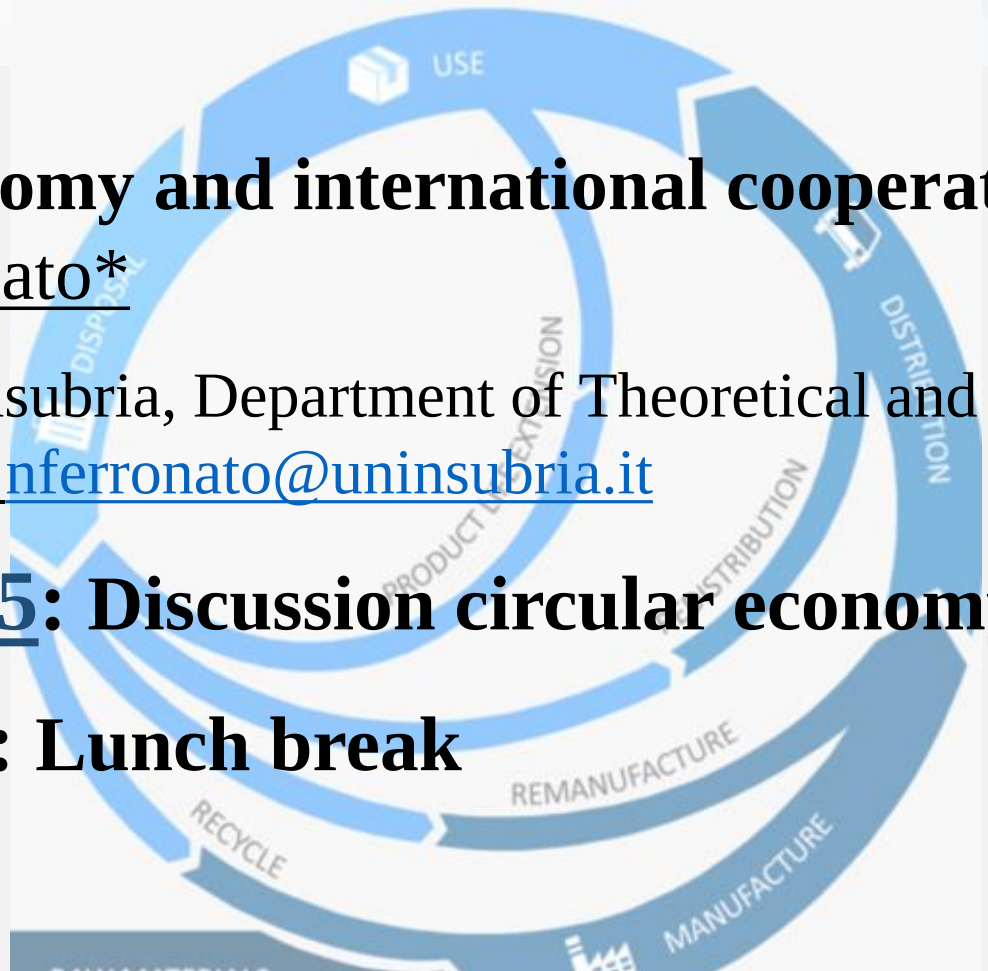
Circular economy and international cooperation

Navaro Ferronato*

*University of Insubria, Department of Theoretical and Applied Sciences, Email: nferronato@uninsubria.it

11:30 – 11:45: Discussion circular economy section

11:45-12:00: Lunch break



Water treatment section

12:15 – 12:30

Supreme and selective uranium capturing at acidic environment by functionalized ordered mesoporous silicas: surface chemistry heterogeneity matters the most

Dimitrios A. Giannakoudakis*

*Institute of Physical Chemistry, Polish Academy of Sciences, Kasprzaka 44/52, 01-224, Warsaw, Poland. Email: dagchem@gmail.com

12-30 – 12:45

Fluoride removal from groundwaters: new coagulants vesrus conventional treatment

Athanasia Tolkou*, Anastasios Zouboulis*

*Aristotle University of Thessaloniki, Department of Chemistry, Laboratory of Chemical and Environmental Technology. Email: tolkatha@chem.auth.gr

12:45 – 13:00

Adsorptive removal of phosphate anions from aqueous solutions using polyethylenimine on silica: possibilities for multiple anion removal

Maria Xanthopoulou*, Ioannis Katsoyiannis*

*Aristotle University of Thessaloniki, Department of Chemistry, Laboratory of Chemical and Environmental Technology. Email: mariaxanth@chem.auth.gr

13:00 – 13:15: Discussion water treatment section

13:15 – 13:30: Closing remarks and End of the meeting