

EFCE Spotlight Talks

Working Party on Thermodynamics
and Transport Properties

14
November
2024

10:00-12:00
CET



Role of applied thermodynamics in a changing world (sustainability, energy transition, circularity)

Related to the resurrection of the Section on Sustainability, the theme of sustainability has been chosen as general umbrella for the talks.

We are living in times of strong focus on sustainability and energy transition. The products and services we want as consumers must be produced in more sustainable less energy demanding processes, making use of renewable feedstock, and emitting less waste and reducing the carbon footprint.

Thermodynamics is the science relating energy and matter, and as such it is instrumental in process & product design, in the end defining the sustainability profile of the targeted process and product.

In this context, the WP-TTP has chosen as topic for these Spotlight Talks: "Role of applied thermodynamics in a changing world (sustainability, energy transition, circularity)".

Three presentations will be given on various topics, emphasizing the role that (applied) thermodynamics plays in many areas of relevance to sustainability.

PROGRAM

- 10:00 **Welcome and introduction**
Prof. Maria-Grazia de Angelis, Chair Working Party on Thermodynamics, U. Edinburgh - UK
Dr. Christoph Held, TU Dortmund - Germany
Dr. Antoon ten Kate, Vice-Chair Working Party on Thermodynamics, ChemSpiration, Arnhem - Netherlands
Prof. Boelo Schuur, EFCE Scientific Vice-President
- 10:15 **Engineering of intensified CO₂ capture and electrocatalytic reduction systems: from solvent selection to pilot plant testing**
Dr. Athanasios Papadopoulos, PSDI,CPERI,CERTH, Thessaloniki - Greece
- 10:45 **Use of exergy for process retrofit and optimisation**
Dr. Raphaelle Thery, Laboratoire Génie Chimique, INP-ENSIACET, Toulouse - France
- 11:15 **Role of (applied) thermodynamics in the area of refrigerants**
Prof. Fèlix Llovell, Dep. Chemical Engineering, Univ. Rovira i Virgili (URV), Tarragona - Spain
- 11:45 **Discussion and conclusion**
Prof. Maria-Grazia de Angelis, Chair Working Party on Thermodynamics
Dr. Christoph Held, TU Dortmund - Germany
Dr. Antoon ten Kate, Vice-Chair Working Party on Thermodynamics
- 12:00 **Closure**

[REGISTRATION](#)

free of charge but mandatory

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