

EFCE SpotLight Talks

Working Party on
High Pressure Technology

26 May
2023

14:00 • 17:30

CEST

TECHNOLOGY TO IMPROVE CONVENTIONAL CHEMICAL ENGINEERING PROCESSES – Part II



Chemical engineering can provide the answers to the major challenges in developing sustainable processes. Pressure is a variable that allows the intensification of processes with compact equipment and solvent and reaction media properties, improving yield and selectivity and excluding effluent generation. Water and CO₂ are widely recognized as green solvents, whereby the pressure can provide enhanced solvent and transport properties for CO₂ or transform water into a non-polar solvent. The constant improvement of high-pressure technologies enables the goal of creating energy-efficient and environmentally friendly processes. This webinar will discuss the role of a chemical engineer in the modern world and present high-pressure technologies that significantly improve the conventional processes used in the chemical, food, and pharma sectors and materials engineering. As a result, they provide enhanced safety and quality of solvent-free products, which go beyond the requirements of more restrictive future legislation.

PROGRAM

- 14:00 **Welcome and introduction**
Prof. Irena Zizovic, Wroclaw University of Science and Technology - Poland
Prof. Jarka Glassey, EFCE Executive Vice-President
- 14:10 **The role of the chemical engineer during the energy transition and development of a circular economy**
Prof. Philip Jaeger, Clausthal University of Technology - Germany
- 14:40 **Sustainable and efficient processing under high pressure**
Dr. Jasna Ivanovic & Dr. Judith Kremer, Uhde High Pressure Technologies GmbH - Germany
- 15:10 **Scale up of supercritical fluid technology. Example of new continuous process industrialization**
Dr. Jean-Yves Clavier, Supercritical Fluid Technology and Engineering - France
- 15:40 **Engineering of porous materials from microscale to application**
Prof. Pavel Gurikov, Hamburg University of Technology - Germany
- 16:10 **Natural antioxidant powder gained by supercritical fluids**
Prof. Sabine Grüner-Lempart, Univ. Applied Sciences Weihenstephan-Triesdorf – Germany
- 16:40 **Applications of SCF in textiles wet processing**
Prof. Tarek Abou Elmaaty, Damietta University - Egypt
- 17:10 **Conclusion**
Prof. Irena Zizovic, Wroclaw University of Science and Technology - Poland

[Registration](#)

free of charge but mandatory

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