

AQTR 2020-SPECIAL SESSION ON SEPARATION PROCESSES MODELING AND CONTROL

Organizers:

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Vapour-liquid and liquid-liquid separations are fundamental processes in the Chemical Process Industries. Distillation operations alone are responsible for some 40% of energy usage. Chemical plants commonly have from 40% to 70% of both capital and operating costs in separations. The proper design, modelling, monitoring and control of these separation processes are required in capital and operational savings, increased yield and throughput, improved product characteristics, greater operational flexibility and reduced operational risk. One of the main interests of the organizers represents the isotope separation processes modelling and control, being the theme of several PhD Thesis and research projects from our department. The goal of this special session is to provide experimental or theoretical research work bringing new perspectives to established principles, highlighting unsolved problems or indicating directions for future research. Authors of this special session are welcomed to submit new advances and research results in the fields of separation technology. Topics of interest for submission include, but are not limited to:

Themes

- Challenges in Separation Technologies
- Hydrodynamics, heat and mass transfer in separation equipment
- Process design
- Process operations
- Process modelling, simulation and optimisation
- Control of Separation Processes