

## Heat Transfer

### Mass transfer

#### IDENTIFICATION

CODE : GEN-3-S2-EC-TMAT  
ECTS : 1.0

#### HOURS

Lectures : 3.0 h  
Seminars : 9.0 h  
Laboratory : 0.0 h  
Project : 0.0 h  
Teacher-student  
contact : 12.0 h  
Personal work : 7.0 h  
Total : 19.0 h

#### ASSESSMENT METHOD

#### TEACHING AIDS

#### TEACHING LANGUAGE

French

#### CONTACT

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#### AIMS

Understand the basic concepts of mass transfer in order to apply them to the design of some mass contactors necessary to the gas or liquids treatment.

#### CONTENT

- Mass balance
- local balance
- global balance
- Units, dimensions, dimensionless numbers
- Molecular diffusion:
- Fick's law
- Diffusivities in gases
- Diffusivities in liquids
- The equation of continuity
- Turbulent diffusion
- Mass transfer coefficients
- Mass transfer between phases
- Two film theory
- Mass transfer in spherical geometry
- Mass transfer data
- bubbles, drops