





#4503

## Transport Phenomena

TRANSPORT PHENOMENA IN POROUS MEMBRANES AND MEMBRANES REACTORS

## **DESCRIPTION**

Mass transfer through porous membranes involves concepts related to basic transport phenomena of diffusion and convection. In this course, different mathematical models are described as well as boundary conditions that lead to define the problem. Based on Stefan-Maxwell's equations, the model of "Extended Fick" (EFM) and "Dusty Gas Model" (DGM) are analyzed in order to describe the flux of different species through a porous membrane. Correlations to estimate mass transfer coefficients are discussed during the course and these concepts are analyzed in terms of membrane reactors performance. The course can be adapted to any particular interests of the company.

## **TARGET AUDIENCE**

Managerial and technical staff of chemical, petrochemical and oil industries, food, pharmaceutical industries, among many others.

