



# Effect of the Homogenisation Speed on the Emulsification Efficiency

## Application

All domains

## Objective

Study the effect of speed of homogenisation upon emulsification efficiency

## Device

TURBISCAN® ONLINE

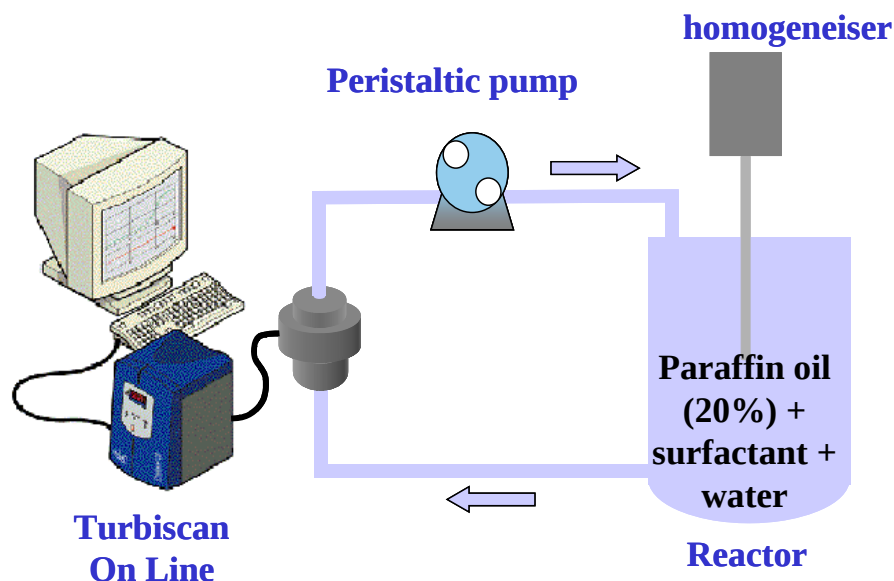
## METHOD

We follow the emulsification of paraffin oil 20% concentrated in water at different homogenisation speeds :

- 9500 rpm
- 13500 rpm
- 20500 rpm
- 24000 rpm

Turbiscan ONLINE measures the evolution of backscattered light intensity as a function of time for each stirring speed.

The time  $T_0$  corresponds to the moment when we begin the homogenisation.



## RESULTS

Turbiscan ONLINE measures, in real time, the backscattering increases which correspond to the droplet size decreases during the emulsification processes (Figure 1). The greater the homogenisation speed is, the finer the emulsion will be (small oily droplets).