
MARKETING INFORMATION
Applications in the TEXTILE sector
Synthetic Fibers Department
SYNTHETIC FIBERS

In plants for the production of artificial or synthetic fibers, the chemical-physical analyses carried out by automatic analyzers are aimed at automatic control of the continuous processes.

We have installed various automatic analyzers that concern different points of the production processes in this sector.

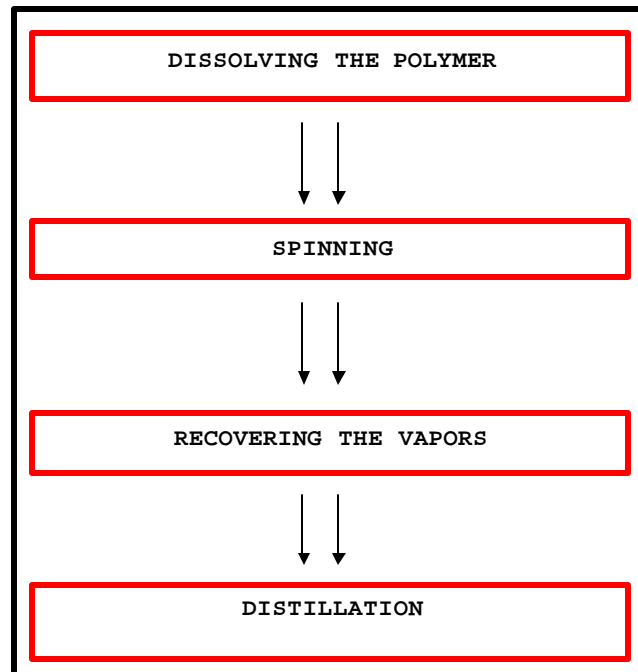
A plant for the production of synthetic fibers can be represented as shown in the figure below.

PROCESSES INVOLVED:
Spinning of dissolved polyacrylate

Comprises the following phases:
 coagulation in a spinning bath containing an aqueous solution of DMF having a fixed concentration;

- Washing in a bath consisting of an aqueous solution of DMF having a fixed concentration; extracting the yarn for drying and storage. At the end of the process, polyacrylic fiber yarn is obtained.

To maintain the concentration of the DMF in the coagulum and washing baths the **UR20** refractometer, having a scale in % **DMF** is used, fitted on the delivery pipes of the baths.


Recovering the vapors

The DMF vapors extracted from the coagulation tanks are sent to the fumes scrubbing tower where they are treated with a water spray which recirculates until the required concentration is reached, ideal for recovery by distillation.

For automatic control of the **fumes scrubbing phases**, the **UR20** refractometer, having a scale in % **DMF** is used, mounted at the recirculation tower outlet.