

## Additives Department

### ANIMAL GELATIN

In plants for the production of gelatin from animal proteins, the chemical-physical analyses carried out by automatic analyzers are aimed at controlling the extraction and automatic regulation of continuous processes.

Our company has installed different automatic analyzers that concern different points of production processes in this sector.

A plant for the production of gelatin from animal proteins can be represented as shown in the figure below.

#### PROCESSES INVOLVED:

##### **Extraction and purification**

A batch process, in which concentrated acids or bases are added to the product processed to hydrolyze the proteins derived from collagen leading to peptide chains.

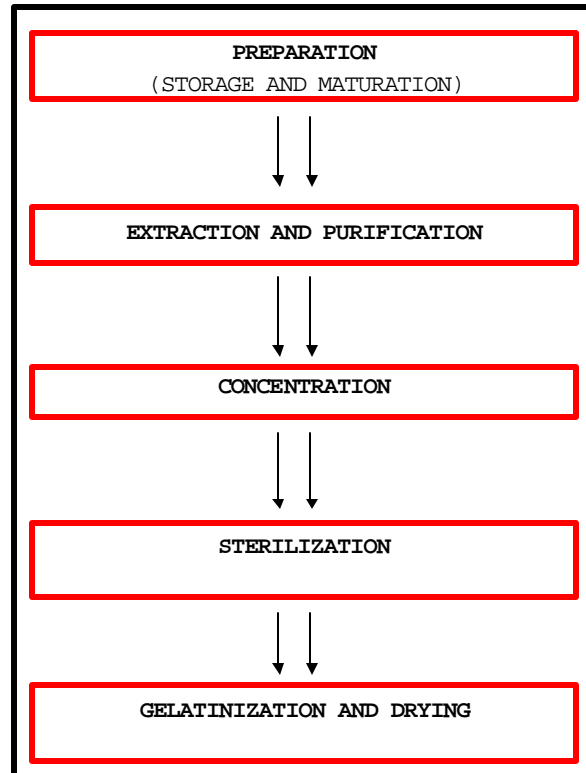
The **LR-01** laboratory refractometer, with scale in **Brix** degrees, can be used to control this phase. The extraction liquid is softened in a resin plant in which the **pH**, **conductivity**, and the **turbidity** are checked. Analyses are carried out using the **RM** series instruments and the **UT-02** turbidimeter.

##### **Concentration**

For automatic regulation of the **concentration** of the peptide solution, both in ultra-filtration and on the concentrator, the **UR20** refractometer is used, mounted at the outlet of each evaporation block.

##### **Sterilization**

The **UR20** refractometer is used for controlling the sterilization phases where a concentration also takes place.



Generally, as these are continuous processes in which the management of energy recovery and production yields are fundamental for the budget, there are different “secondary” points in which the instruments for automatic measurement and control of concentrations find application.