

### **II.2.1.3.1.3 Acidification by electromembrane treatment (bipolar membrane electro dialyse)**

**Definition:**

Physical ionic must extraction method under action of electric field using permeable cation membranes and bipolar membrane giving rise to increased titratable acidity and actual acidity (decrease in pH).

**Objectives:**

- a) Increase titration acidity and actual acidity (decrease in pH).
- b) Promote good biological characteristics and favour good vinification.
- c) Favour good maturation of wine.
- d) Remedy insufficient natural acidity caused by:
  - climatic conditions in the viticulture region, or
  - oenological practices which lead to a decrease in natural acidity.

**Prescriptions:**

- a) See the general sheet on separative techniques used in the treatment of musts and wines and the sheet concerning the use of membrane techniques applied to musts.
- b) Acidification by electro-membrane treatment should not be done to conceal fraud.
- c) Cationic membranes shall be made in a way so as to only enable them to be adapted to the extraction of cations only and in particular cations: K<sup>+</sup>.
- d) Bipolar membranes are impermeable to anions and cations of musts.
- e) Acidification by bipolar electro dialysis must only be carried out provided that initial must acidity is not increased more than 54 meq/l (that being 4 g/l expressed in tartaric acid).When musts and wine are acidified, the net accumulated increase must not be over 54 meq/l (that being 4 g/l expressed in tartaric acid).
- f) The implementation of the process will be under the responsibility of an oenologist or a qualified technician.
- g) The membranes shall comply with the prescriptions of the International Oenological Codex.

**Recommendation of the OIV:**

Admitted