

Equipment configuration

- 1 inox structure of 2 places
- 2 erlenmeyer flasks 500 ml w/n
- 2 bubbler tubes
- 2 rubber caps 2 holes
- 2 glass sticks
- 2 expansion balls
- 2 rubber caps 1 hole
- 2 ball coolers
- 2 erlenmeyer flasks 250 ml n/n
- 2 meters of silicone tube 7x11 mm
- 1 sodium hydroxide 0.1N 1000 ml
- 1 phenolphthaleine solution 50 ml
- 1 power cable
- 1 instructions manual

ref. 3026135
 ref. 3162066
 ref. 4026012
 ref. 3162067
 ref. 3162068
 ref. 4026013
 ref. 3162069
 ref. 3026137
 ref. 6072001
 ref. 1004022
 ref. 1004001
 ref. 0002050

Required material

- 1 burette support GAB inox
- 1 burette clamp w/nut
- 1 burette 10 ml PTFE key
- 1 pipette 10 ml 2 marks "A"
- 1 beaker 50 ml low form
- 1 flow indicator
- antifoaming silicone

ref. 1010007
 ref. 63204115
 ref. 3019063
 ref. 3019016
 ref. 3026162
 ref. 45000539
 ref. 1009003



Comments

- You got an instrument for the determination of the volatile acidity according to the Cazenave-Ferré method. This equipment forms a compact unit that incorporates, for the distillation of the wine sample, an electric heater of 350W, transmitting the heat by contact and with softness. The heater is armored, efficient, clean and with a long lifespan.
- This method is based on the separation of acetic acid and other volatile acids by steam drag and subsequent titration of the distillate with 0.1N Sodium Hydroxide.

Instructions

Setting the equipment

- 01 Insert the coolers, joined by about 20 cm of silicone tube in the upper part and about 15 cm in the lower part, in the rear white clips/clamps**** and pass the outlet through the center tubes piece from the front. Link a piece of silicone tube from the water network to the free lower piping of the cooling gel and
- 03 another piece from the higher free outflow of the cooling gel to the drainage.
Join the cooler inlet with the expansion ball. The ball will rest on its lateral support.
- 04 Connect the device through the supplied cable to the 230V network.

Operational technique Cazenave-Ferré method

- 05 Water is circulated through the coolers and the front switches are turned on; the lights of the switches will light up and the heating elements will begin to heat up.
- 06 Place the corresponding 250 ml erlenmeyers under the center tubes!!!!!!!!!!!!!!!!!!!!!!.
- 07 Degas previously the sample.
- 08 Place 300 ml of distilled water in the 500 ml erlenmeyers, place them on the hot resistances and close the latch.
- 09 Measure 10.00 ml of the wine samples to be analyzed and place them in the bubbler tubes.
- 10 When the water begins to boil, place the bubbler and insert the expander ball into it.
- 11 When steam starts to come out of the 2 hole rubber cap, place the glass stick.
- 12 The equipment will begin to distill and we will wait to collect 100 ml of distillate in the 250 ml erlenmeyer flasks. Once collected, stop the switch, remove the glass stick and remove the expander ball.
- 13 Add 3-4 drops of phenolphthalein solution to the distillate and titrate with 0.1N Sodium Hydroxide until slightly pink but persistent colour. Print rotating movements in the titration.
- 14 For the calculation, multiply the milliliters spent in the burette by the 0.60 factor, obtaining the grams per liter of acetic acid (g/L acetic acid).

Observations

- If abundant foam is observed during the boiling it will be necessary to repeat the analysis with a drop of antifoaming silicone.
- Be careful not to touch the steam with your hand. It is at a very high temperature.
- To avoid a reflux in the sample change first remove the glass stick and then the expander ball.
- For a new sample, first clean the bubbler tube and fill it with a new sample, taking into account also, to fill the 500ml flask with more distilled water up to a volume of 300ml.

