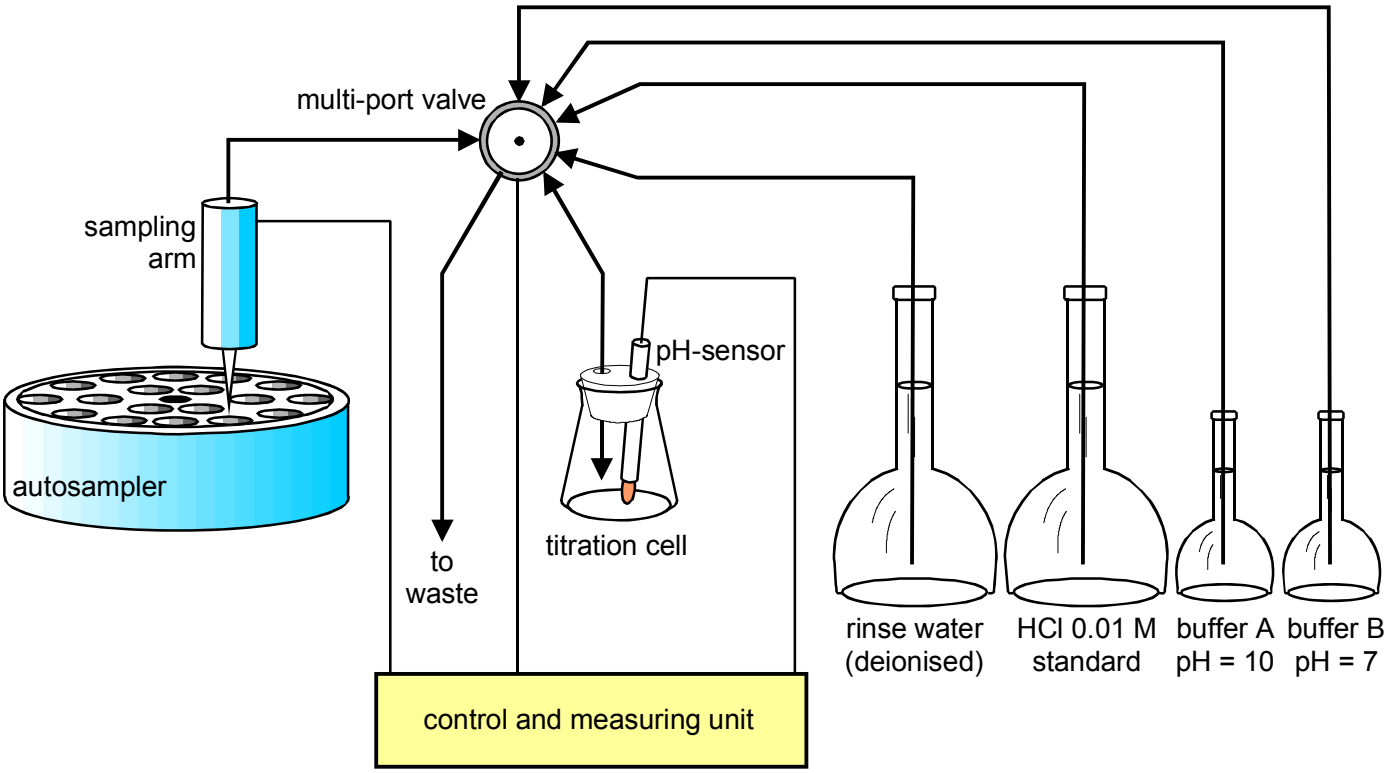
CONTEXTE

Votre laboratoire a fait l'acquisition du Doz-i-Matic pour effectuer en routine les neutralisations pH-métriques automatiques de solutions basiques produites dans l'entreprise. Vous devez traduire en français le mode d'emploi et tester l'instrument pour vous assurer de son bon fonctionnement.

SCHEMA DU DOZ-I-MATIC



TACHES A EFFECTUER

- Traduisez en français l'intégralité du mode d'emploi du Doz-i-Matic (voir page suivante).

..... / 30 points

- Lorsque vous testez l'instrument, vous constatez qu'il ne donne pas les résultats attendus et vous en concluez que le mode d'emploi contient une faute grave, que vous devez identifier.
  Rédigez une courte lettre en anglais, dans laquelle vous mentionnez l'erreur constatée et la correction proposée, que vous pourrez envoyer par fax à la société qui commercialise le Doz-i-Matic.

..... / 10 points

Total: ..... / 40 points

DOZ-I-MATIC USER'S GUIDE

1. CALIBRATION PROCEDURE OF THE DOZ-I-MATIC:

a. Make sure that the "rinse water flask" contains freshly deionised water (min. 500 mL), the "acid flask" contains HCl 0.01 M (min. 500 mL; ready-to-use standardised solution; order number: 200-45), the "buffer A flask" contains the pH = 10 buffer (min. 250 mL; ready-to-use solution; order number: 200-17), and the "buffer B flask" contains the pH = 7 buffer (min. 250 mL; ready-to-use solution; order number: 200-23).

b. Switch the power on (button on the right side of the control and measuring unit) and wait 5 min for warming up.

c. Follow the instructions on the screen of the control unit to start the semi-automatic calibration procedure. When asked to enter the accurate pH value of buffer A, enter 7.00 and proceed to the next step; for buffer B, enter 10.00 to complete the calibration procedure.

d. The instrument is now calibrated for measurement of your unknowns. Calibration of the pH sensor must be performed every day to ensure reliable results at the 2nd digit.

2. NEUTRALISATION OF UNKNOWN SAMPLES:

a. Insert up to 18 samples in the autosampler. The volume of each sample must be at least 20 mL, but must not exceed 50 mL to avoid spill off and inter-sample contaminations during rotation of the autosampler. Samples must be contiguous, starting from position #1 in the autosampler.

b. On the control and measuring unit, enter the number of samples to be analysed. The number of requested measurements can be equal to or less than the number of samples in the autosampler. If you enter a value larger than the actual number of samples, the sampling arm will pump air in the multi-port valve instead of solution; this will result in serious disfunctioning of the device. If such an event occurs, please refer to the section "Troubleshooting" of this manual.

c. When ready to start the measurements, press the green button on the front side of the unit. The instrument automatically pumps a controlled volume of sample in the titration cell and starts neutralisation of the excess base in your sample by addition of small amounts of the standardised solution of acid, until a final pH = 7.00 is reached. The complete measurement is repeated twice and the average concentration of alkali in your sample is calculated and printed out. The titration cell is automatically purged, rinsed with deionised water and emptied for the next sample.

d. When all samples have been analysed, remove them from the autosampler and press the red button on the front side of the unit to initiate the cleaning procedure of the titration cell. When this step is completed, switch the power off (button on the right side of the control and measuring unit).

TRADUCTION FRANCAISE DU MODE D'EMPLOI DU DOZ-I-MATIC

(Continuez au verso si vous n'avez pas assez de place sur cette page)

LETTRE EN ANGLAIS POUR LA SOCIETE COMMERCIALISANT LE DOZ-I-MATIC

(La lettre doit être structurée comme toute lettre commerciale: adresses, date, formules de politesse; elle doit décrire le dysfonctionnement constaté, et proposer une correction du guide de l'utilisateur. Continuez au verso si vous n'avez pas assez de place sur cette page)