4- Complex Formation titration
Experiment no.11
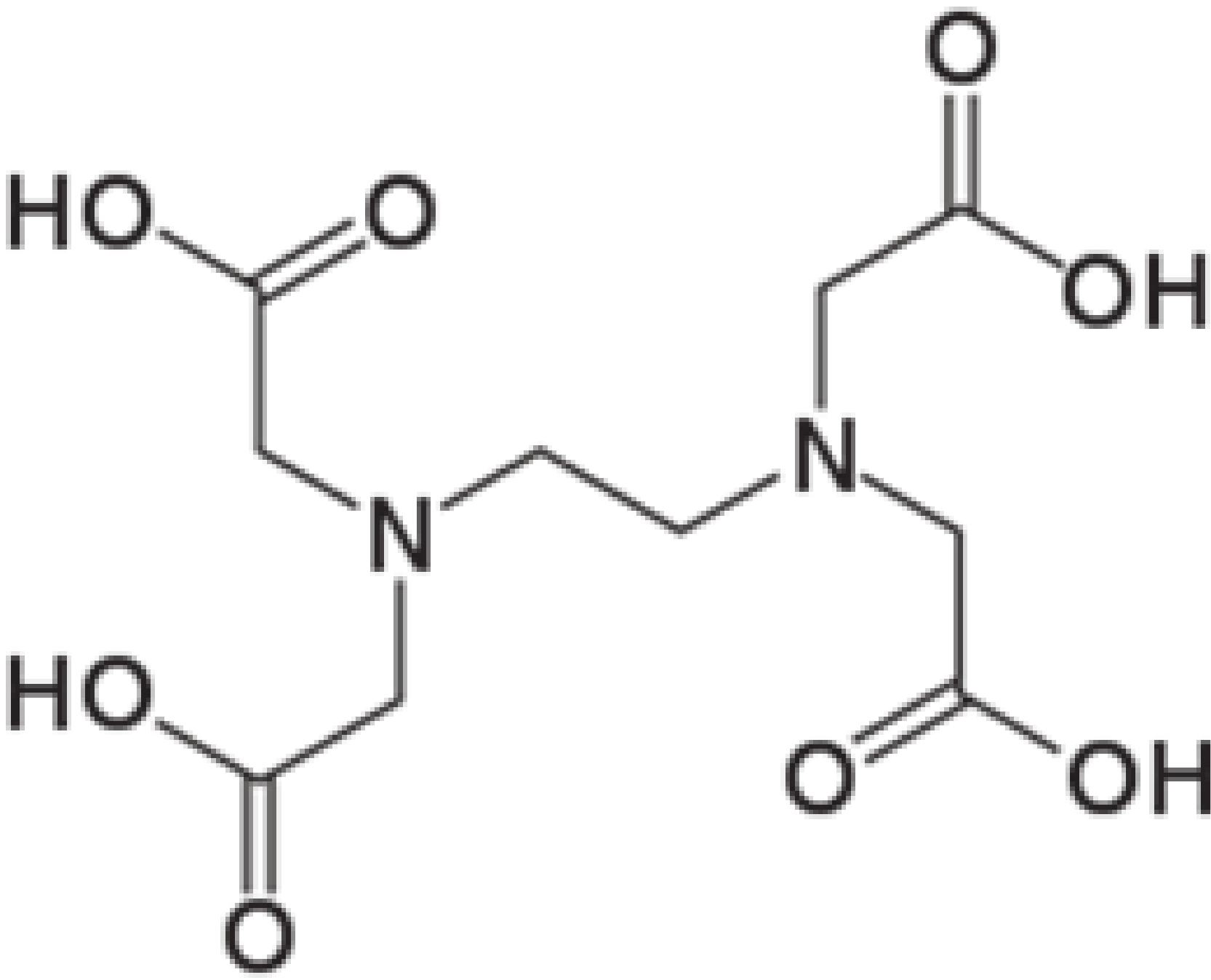
Preparation and Standardization of EDTA(di sodium salt)

Theory:

Chemical formula of Ethylene Diamine Tetra Acetic acid di sodium salt is:
$Na_2H_2C_{10}H_{12}O_8N_2.2H_2O$
The Molar Mass is 372.25

Procedure:-

1- Prepare   0.01M EDTA(di sodium salt) 250mL

2- Prepare 0.01M Zinc Sulphate hepta hydrate (standard solution) 250mL

3-Take 10mL exactly Zinc Sulphate solution then add 40mL D.W.

4-Add 2mL pH10

5-Add small quantity of Erichrome BlackT

6-Titrate with EDTA solution in burette until the color of solution become blue.

7-Repeat 3,4,5and 6 twice

8-Calculate concentration of EDTA solution exactly.

*0.01M EDTA(di sodium salt)   250mL

Molar mass of EDTA(di sodium salt) = 372.25

Mass = 0.93 g

2- Prepare 0.01M Zinc Sulphate hepta hydrate
ZnSO4.7H$_2$O(standard solution) 250mL
Molar mass of ZnSO4.7H$_2$O = 287.44

Mass = 0.71 g

At the endpoint

no. of millimoles of EDTA = no. of millimoles of ZnSO4.7H2O

$$M*V = M*V$$

$$M * Y = 0.01 * 10$$

$$M = \ ? \ Mol/L$$