ELECTROPHORESIS

- electrophoresis is the existence of charge separation between the surface of a particle and the fluid immediately surrounding it.
- An applied electric field acts on the resulting charge density, causing the particle to migrate and the fluid around the particle to flow.
- Principle of Electrophoresis
- Charged particles under the influence of a liquid media placed in an electric field will migrate to the electrode of the opposite charge. Positive ions (cations) will migrate to the cathode, the negative electrode. Negative ions (anions) will migrate to the anode, the positive electrode.
- Applications of Electrophoresis
- Agricultural testing.
- Medical research.
- DNA sequencing.
- Protein purification and research.
- Food industry.
- Analysis of antibiotics, terpenoids and steroids.
- Testing the purity of thyroid hormones.
- Separation of free insulin from plasma proteins.
- Procedure
- STEP 1: Prepare samples.
- STEP 2: Prepare gel and buffer.
- STEP 3: Load and pipette samples.

- STEP 4: Electrophoresis (Run the gel)
- STEP 5: Visualize and document bands.