Electrophoretic mobility 04.07

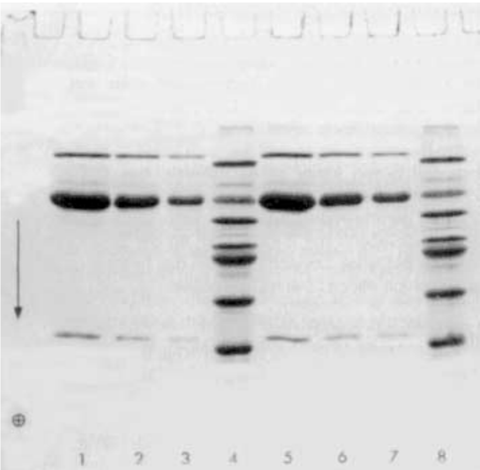
What you can learn about

- Molecular and colloid suspensions
- Amino acids and proteins
- Electrophoresis and electrochromatography
- Migration rate
- Electrophoretic mobility

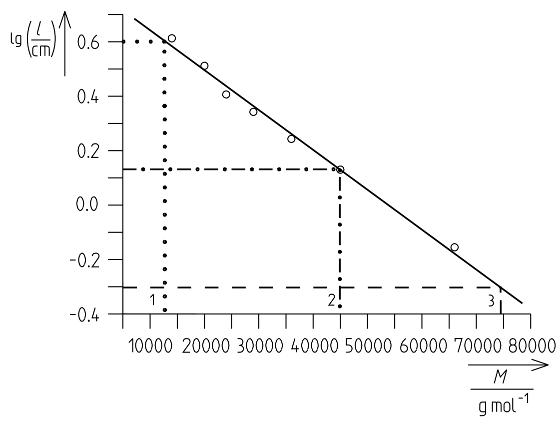
Principle and tasks

Electrophoresis is a standard method of modern biochemistry. It enables the isolation and identification of ionisable molecules according to their differing migration rates in an electric field, which are due to their charges and masses.

The proteins contained in egg white are separated using gel electrophoresis. By comparing the fractionated proteins with a reference mixture of proteins, their approximate molar masses are determined.



Electrophoretic separation of egg white proteins and a reference protein mixture.



Identification and determination of the molar masses of egg white proteins.

What you need:

Electrophoresis chamber, vertical	35018.20	1
Electrophoresis power supply, 100/200 V	35019.93	1
Laboratory balance, with data output, 320 g	48800.93	1
Reaction vials, 1.5 ml	37653.00	1
Rack for reaction vials	37652.00	1
Microlitre pipette, 2-20 ml	47141.01	1
Microlitre pipette, 25-250 ml	47141.04	1
Disposable tips, yellow	47148.01	1
Graduated cylinder, 100 ml	36629.00	1
Graduated cylinder, 1000 ml	36632.00	1
Erlenmeyer flask, 1000 ml, wide neck	36133.00	1
Petri dish, d = 200 mm	64796.00	1
Glass beaker, 50 ml, tall	36001.00	5
Glass beaker, 1000 ml, tall	36008.00	1
Pasteur pipettes	36590.00	1
Rubber bulbs	39275.03	1
Glass rod, l = 300 mm, d = 8 mm	40485.06	1
Ruler, l = 200 mm	09937.01	1
Protective gloves, vinyl, medium	39175.02	1
Acrylamide gel, 10 %	35018.21	1
SDS-PAGE Standards BR, 0.2 ml	35018.25	1
Tris-glycine-buffer, 10 ×, 1000 ml	35019.20	1
Laemmli buffer, 30 ml	35019.21	1
Coomassie brilliant blue solution, 1000 ml	35018.26	1
Water, distilled, 5 l	31246.81	1
Chicken egg		

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