

## Electrogravimetric determination of copper

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### Principle

Electrogravimetry is an important analytical method for the quantitative determination or separation of species in solution. The technique involves the quantitative electrolytic deposition of an element, usually a metal, on a suitable electrode in weighable form.

### Benefits

- High quality platinum electrode for precise results
- Optimized test procedure by heating

### Tasks

Perform an accurate electrogravimetric determination of the amount of copper in a given sample solution.

### Learning objectives

- Quantitative analysis
- Gravimetry
- Electrolysis
- Overpotential
- Electrode polarisation

### Necessary accessories

- Analytical balance 120g/0.1mg

## Scope of delivery

Magnetic stirrer with heater	35754-93	1
PHYWE Power supply, universal, analog display DC: 18 V, 5 A / AC: 15 V, 5 A	13503-93	1
PHYWE Digital multimeter, 600V AC/DC, 10A AC/DC, 20 MΩ, 200 μF, 20 kHz, -20°C...760°C	07122-00	2
Pt electrodes, electrogravimetry	45210-00	1
Connecting cord, 32 A, 500 mm, red	07361-01	1
Connecting cord, 32 A, 500 mm, blue	07361-04	1
Connecting cord, 32 A, 500 mm, red	07362-01	2
Connecting cord, 32 A, 500 mm, blue	07362-04	1
Magnetic stirring bar 30 mm, cylindrical	46299-02	1
Supp.rod stainl.st.,50cm,M10-thr.	02022-20	1
Spring balance holder	03065-20	1
Support rod with hole, stainless steel, 10 cm	02036-01	1
Holder for two electrodes	45284-01	1
Right angle boss-head clamp	37697-00	2
Beaker, Boro, high-form	46027-00	1
Volumetric pipette, 50 ml	36581-00	1
Graduated pipette 25 ml	36600-00	1
Pipettor	36592-00	1
Pasteur pipettes, 250 pcs	36590-00	1
Rubber caps, 10 pcs	39275-03	1
Wash bottle, plastic, 500 ml	33931-00	1
Copper-II sulphate,cryst. 250 g	30126-25	1
Sulphuric acid, 95-97%, 500 ml	30219-50	1
Nitric acid , 65% 1000 ml	30213-70	1
Ethyl alcohol, absolute 500 ml	30008-50	1
Water, distilled 5 l	31246-81	1