

Application

Titroline alpha *plus*

**Determination of Copper
and other metals with
EDTA Na₂ (direct titration)**

USE

Determination of the Copper (II) Ions with complexometric titration using a Cu-ion selective electrode. Other metals (II) can be determined also with a addition of Cu-EDTA. The samples are normally buffered in a acetate- or ammonia buffer (pH 10). All metals who form a lower stable metal EDTA complex than Cu-EDTA can be analysed with this method. That are e.g. Mg, Ca, Zn, Pb, Cd, Mn und Co^{2+} .

DEVICES

TitroLine alpha plus TL 10, 20 or TL 50 plus
Magnetic stirrer TM 135

ELECTRODES

Electrode:	Cu 1100A with cable K1A
Reference electrode	B 3520 or 2920
Elektrolyte:	KCl 3 mol/l, L 300 4

CHEMICALS

Solvent:	dest. water
standardisation:	
Titration agent:	EDTA- Na_2 0.1 mol/l
Other reagents:	buffer pH 10, Cu-EDTA- NA_2 0.1 mol/l.

DESCRIPTION

Titration

Add to the sample 80 ml dest. water, 10 ml of the buffer pH 10 and max. 1 ml of the Cu-EDTA solution 0.05 mol/l if the sample is not a Cu solution. Place the electrodes and burette tip in the sample and titrate to the equivalence point.

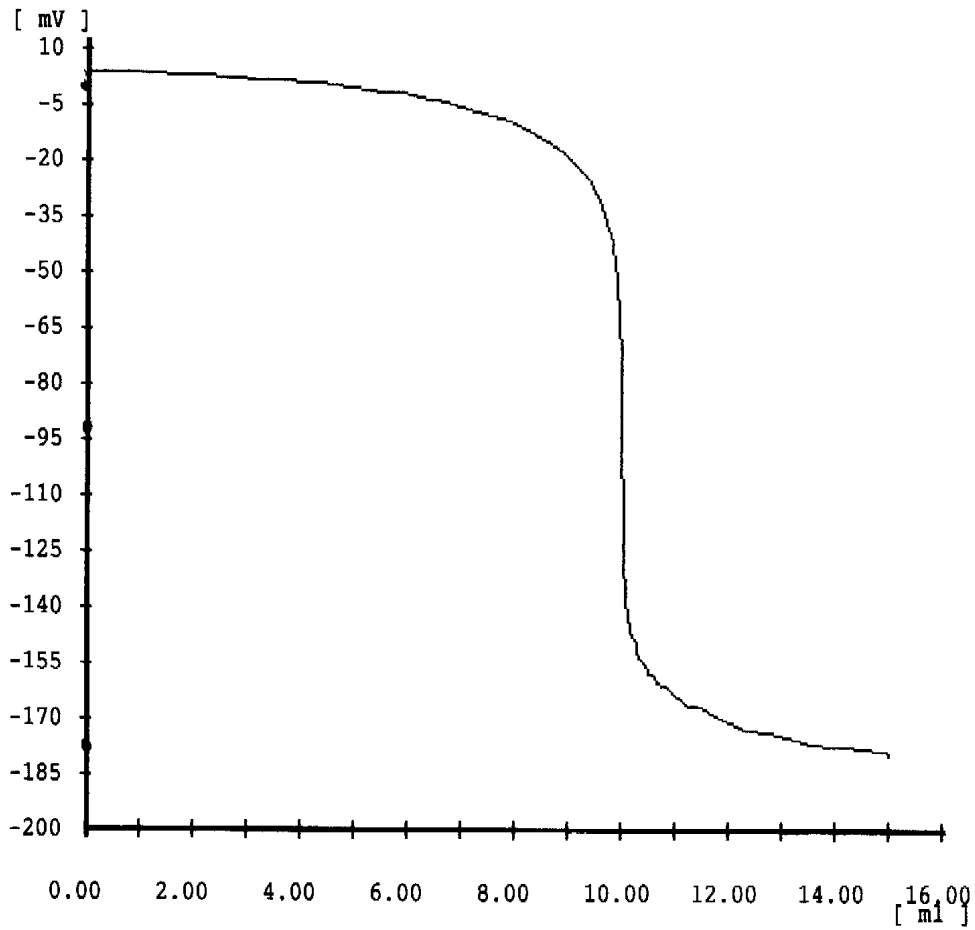
Electrode handling

After use, the reference electrode should be placed in KCl 3 mol/l immediately. It has to be made sure that there is always sufficient electrolyte solution in the electrode. For further details, please refer to the electrode's operating instructions. The Cu 1100A should be stored dry after use.

LITERATURE

Jander, Jahr Maßanalyse. Idranal, Reagenzien für Komplexometrie (Riedel de Haen).
Komplexometrische Bestimmungsmethoden mit Titriplex (Merck).

Documentation with curve: Cu



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