

## Experiment: Silverplating of copper

### Chemicals, Equipment:

Beaker, pipette, volt/amp-meter, copper strips, coal electrode, source of direct electric current, Electrolyte: 0,6 g silver (I) nitrate, 15 g thiocarbamide (Thioharnstoff), 3 drops of nitric acid, 300ml of water.

### Safety:

Use safety glasses because silver (I) nitrate-solution and nitric acid are acidic!

### Waste disposal:

Silver nitrate solution contains the heavy metal silver therefor it has to be collected in the heavy-metal-container.  
You will find it on the teachers desk..

### Procedure:

1. Produce the electrolyte by adding 0.6 g silver (I) nitrate, 15 g thiocarbamide and 3 drops of nitric acid to 300 ml of water.
2. Set up the electrolytic cell. Connect the source of direct electric current with the electrodes. Use the copper electrode as the negative terminal and the coal electrode as the positive terminal.
3. Electrolyse approx. 5min. with a voltage of 1,5V with a current of 0,1 A.

### Observation:

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### Interpretation:

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