

Student experiment
(5th - 10th grade)

Electrolysis of zinc acetate

🕒 Time: max. 15 min

Safety:

safety glasses



Instruments:

- empty pill packaging (or a laboratory spot plate)
- two copper wires
- a flat 9 Volt battery
- tape

Chemicals:

- 0,1 M zinc acetate solution (H: 302-410; P: 262-273)

Experiment:

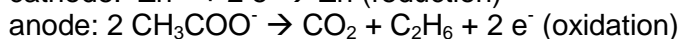
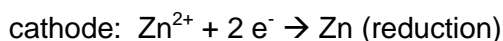
- Place a small amount of zinc acetate in one dimple of an empty pill package (or a laboratory spot plate, if available).
- Connect the copper wires to the battery's electrodes and dip the wire into the zinc acetate solution. Fasten the wires to the battery electrodes with tape.
- Observe the changes in the liquid carefully.

Observations:

After just a short time, a silvery solid can be seen on the cathode wire. A gas can be seen arising at the anode wire.

Results:

Upon application of the electrical current, the following reactions occur at the electrodes:



Disposal:

Dispose of the zinc-containing reaction products in the container for heavy metals.