

Student experiment
(5th – 10th grade)

Precipitation of silver halogenides

🕒 Time: max. 15 min.

Safety:

safety glasses



Instruments:

- two Petri dishes
- spatula (or a custom-cut drinking straw)

Chemicals:

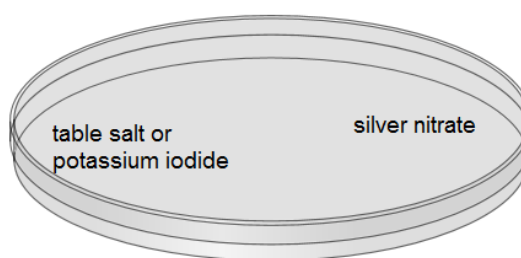
- silver nitrate (H: 272-314-410; P: 273-280-301+330+331-305+351+338-309+310)
- sodium chloride
- potassium iodide
- distilled water

Experiment:

- Fill both Petri dishes half full of distilled water.

Petri dish 1: Place one pinch of table salt on one side of the dish using the spatula and a pinch of silver nitrate on the other side.

Petri dish 2: Place one pinch of potassium iodide on one side of the dish and a pinch of silver nitrate on the other.



Observations:

After a short time, a white precipitate forms in dish 1 and a yellow precipitate settles out in dish 2.

Results:

The halogenide ions are precipitated out of the mixtures by the silver ions.



Disposal:

The silver in the solution can be reclaimed. Collect each of the two solutions in separate containers. Electrolysis will win back the silver.