

# 3. Photography with iron salts

**Opponent:**

Team Romania

**Reporter:**

Team Russia - Element

# Task

**Mix 10 parts of ferrous oxalate (25% aqueous solution), 7 parts of concentrated ammonia solution, and 20 parts of saturated solution of oxalic acid to produce a photosensitive iron complex. Prepare separately a 25% solution of potassium ferricyanide. A sheet of paper saturated with a mix of these two solutions can be exposed to light and produce an image. What other iron salts are photosensitive? Produce photographs using various approaches and various iron salts, and investigate the role of relevant parameters.**

Photosensitivity

- Theoretical explanation

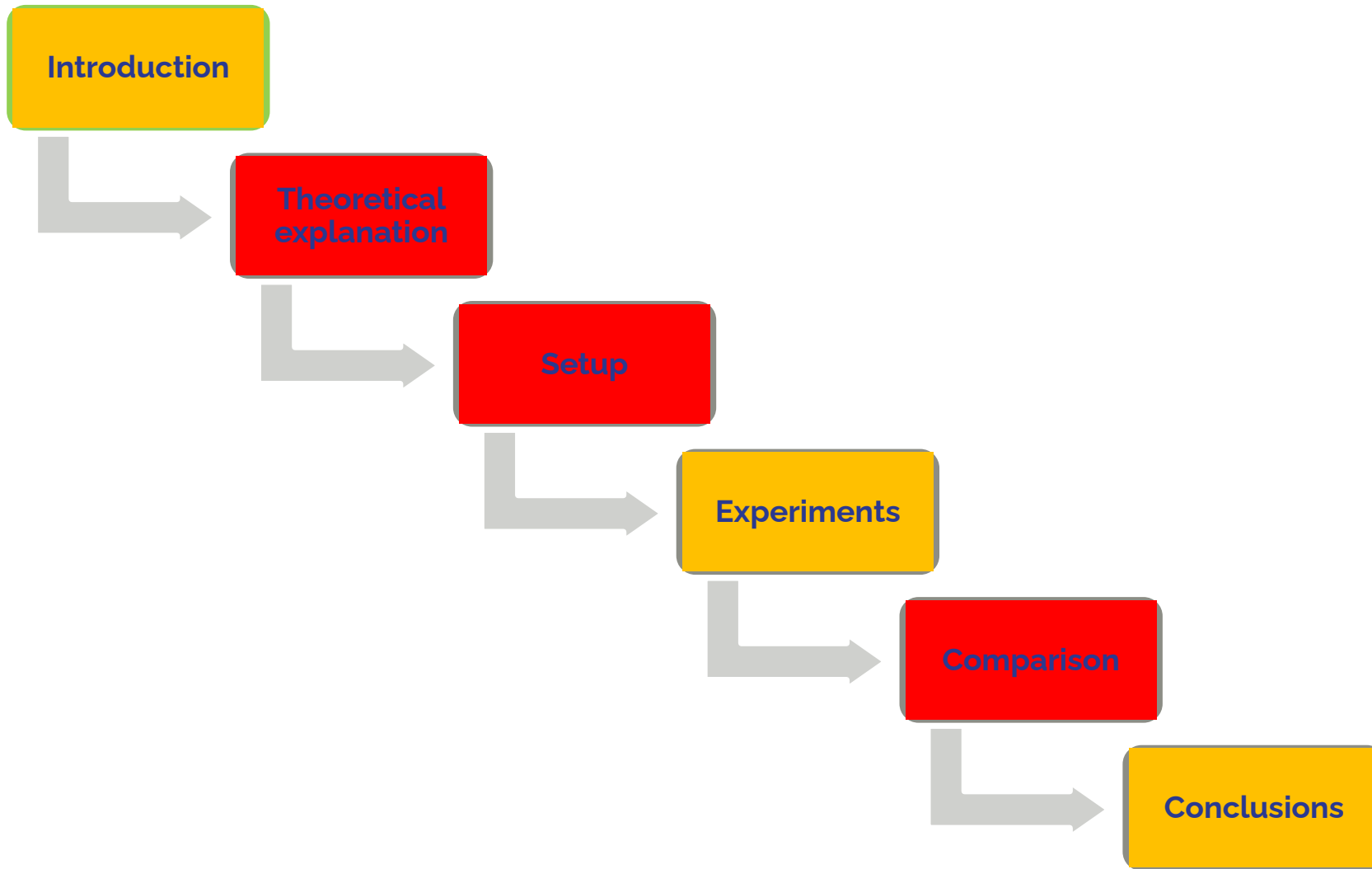
Problem's recipe

- Experimental

Other salts

- Experimental

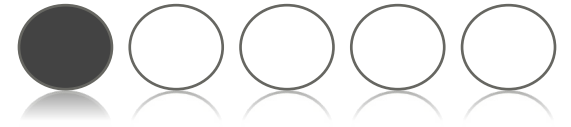
# Outline



Legend for feedback colors:

- Well done (Green circle)
- Good (Yellow circle)
- Needs improvement (Red circle)

# Theoretical part



## Strong points

- Presence of hypothesis and objectives
- The cyanotype was presented

## Weak points

- The reactions were a little too simplified
- Didn't make any quantitative predictions
- Didn't explain her predictions
- Very poor understanding of the phenomenon ( no answer to questions)
- Hasn't defined the terms
- NO visual aids were presented
- No methods of receiving images were presented
- No visual aids were presented
- Chemical results?
- Lack of information
- Too many (text) on the slides

# Experimental part



## Strong points

- Many salts were studied
- The setup was briefly presented
- Presence of chemical reactions

## Weak points

- No clear link connection between theory and experiment
- Didn't control many of the parameters .
- More quantitative data could have been used and mentioned.
- No errors mentioned.
- NO graphs.
- Slide 11 - What other sources of UV light?
- Not explained were those materials were used
- Unclear organization of the slides
- Lack of parameters

# Discussion topics

- Photons in reaction
- Interchange - light - developer solution
- Light + developer solution
- Intensity & Dose
- What types of radiations did you study?
- Reactions on the slide - Can you explain them?
- Instrument quality images