

12. Zinc Layers

REVIEW



Greece - Alliance

I.Y.N.T. 2021

Reporter

PROS

- Referred to relevant theory such as to the mechanism of zinc coating and to the solubility of zinc (depends on temperature and ph of the solvent).
- Included some of the most significant parameters.
- Well presented experimental set up.
- Confirmed that in addition to copper, other metals that can be visibly plated with zinc have to satisfy some conditions.
- Visual aid to support both the theoretical and experimental procedure.
- Referred to the possible errors of the experiment and the reasons behind them.

CONS

- Did not refer to a “predictive” theory.
- Tested only three different coins.
- Did not test the parameter of the kind of zinc.
- Did not include an error estimation.
- Did not had a clear experimental procedure to determine the thickness of the zink layer (problem statement)

Opponent

PROS

- Asked targeted questions about some aspects of the presentation (asked about the number of trials)
- Evaluated every part of the reporter's presentation.
- Spotted that the reporter did not explain the purpose of the zinc sulfate and also that calculating thickness was invalid.

CONS

- Some questions had quite obvious answers (asked about if the reporter included error bars even though it was clear she did not).
- Referred to the absence of method for determining the thickness of the layer without stating any suggestion on that.
- Only questions analyzed in the discussion part.
- Questioned the reliability of the zinc layer thickness measurement without suggesting a more reliable way.

Points discussed

REPORTER

- The results would be the same.

OPPONENT

- What would happen if we had used magnesium sulfate?

We do believe that the opponent's statement that the results would be different is right. We would not observe the same oxidation procedure.

Points discussed

REPORTER

- Any salt would work in the experiment and give the same results.

OPPONENT

- Zinc sulfate is very important

We agree with the opponent cause the zinc sulphate is the important factor that cause this phenomenon to occur

Conclusions

- Reporter should include more detailed theory about the phenomenon.
- Enough experiments conducted, but with a lack on the process and the representation of the results - no errors estimated.
- Opponent should have known how the reporter could have measured the thickness of the zinc layer in a more reliable way, since he already has asked the reporter.

Winner → We believe the Opponent pointed out the major problems of the Reporter's work, and the lack in full understanding of the theory and defending it's solution



SUGGESTIONS

We suggest the reporter to:

- Refer in further to the method for determining the thickness of the layer.
- Insert the error estimation regarding to her graphs.

We suggest the opponent to:

- Express his opinion about the methods he questioned.
- Focus more on the possible errors of the presentation.

Thank you for
your attention