

Department of Chemistry - Macquarie University

Student Learning Experiences in the Laboratory

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I do not give permission for my comments to be used beyond the Department of Chemistry, Macquarie University.

The ethical aspects of this study have been approved by the Macquarie University Ethics Review Committee (Human Research). If you have any complaints or reservations about any ethical aspect of your participation in this research, you may contact the Committee through the Research Ethics Officer (telephone [02] 9850 7854, fax [02] 9850 8799, email: kdesilva@vc.mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

Unit: CHEM101

EXPERIMENT 7 – CALORIMETRY AND OXIDATION-REDUCTION REACTIONS

1 Did this experiment help you to understand the concepts of calorimetry and the activity series of metals? If so, how, or if not, why not?

Yes. Seeing in practice always help.

Yes – having the metals lined up and comparing them helped.

Slightly with activity series of metals as I learnt how to use the table. Still have no idea about calorimetry.

It helped slightly by writing out the equations you could see the pattern and see what was happening.

Yes, and it helped me become familiar with equations and net ionic equations practice. Also reading the activity series.

Yes. We used it in our practical to find how reactive different metals were in different solution.

It helped to understand the concept of specific heat. However, activity series is fairly easy to understand.

Yes. Yes.

Yes. Ensures you recognize the relationships of each metal in the series to one another.

2 Did this experiment teach you any new practical skills? If so, which skills?

No.

No, not really.

No.

Not really.

Net ionic equation practice, also reading the activity series.

Yes. How to measure and calculate specific heat.

Looking after test tubes. 1 – metal rod to be inserted when the test tube is horizontal not vertical. 2 – boiling chips needed to stop big bubbles when boiling which can damage glass.

No.

3 Did you enjoy doing this experiment and find it interesting? If so, what aspects of this experiment did you find of interest?

No, not really. Too basic.

Yes, I found comparing the metals reactivity interesting.

I like doing chemical equations so I enjoyed the end with ionic equations.

It was kind of interesting, it was neat to see the reactions actually occurring in front of you.

Yes, seeing proof of the text book and activity series.

Yes I found it interesting – the equations (redox reactions).

It was fairly interesting.

Calorimeter – I have never made one before. Yes it was enjoyable and it didn't go on forever.

Yes. Understanding the relationships of heat transfer from one object to another.

4 Can the experiment be completed comfortably in the allocated time? Is there time to reflect on the tasks while performing them?

Yes.

Yes + yes. Plenty of time, good because you had time to think and not stress about finishing.

Yes/yes.

YES, this one was ok for time (not like others).

YES.

Yes.

Yes. Yes.

[Redacted]

5 Does this experiment require teamwork and if so, in what way? Was this aspect of the experiment beneficial?

Yes, you learn from your "partner" and you can discuss ideas.

Teamwork is required, it is good because when you work with others you understand better.

Yes, teamwork is good to make sure everything is done right and it helps with understanding. Yes.

Yes, you needed another hand to open lids when transferring things.

YES. TO SET UP the experiments. Section 3.

Does not require, but is definitely useful in finishing in the allotted time as well as being able to confer with another student.

No it could be done alone quite well.

[Redacted]

6 What improvements could be made to this experiment?

None that I can think of.

Better instructions on how to do things.

You don't need so many metals and trials, three or four is sufficient to gain an understanding.

Can't think of any.

Section 2 – could be done more time to decrease error.

?

[Redacted]

7 Any Other Comments

Nope.

Nice experiment to do as enough time needed to do EVERYTHING.

No.

N/H

No.

[Redacted]