

## Experiment 2. Determination of heat retention behavior of paraffin wax mixture

### Experiment 2.1.

Paraffin wax heating experiment was carried out.

\* 30 grams of solid paraffin wax

\* 75 grams of liquid paraffin wax

The heating plate is set to 50 degrees Celsius.

The temperature of the heating plate is slightly higher due to previous use.

Conclusion from the experiment: This paraffin wax mixture does not have the phase change temperature ranges required for the project.

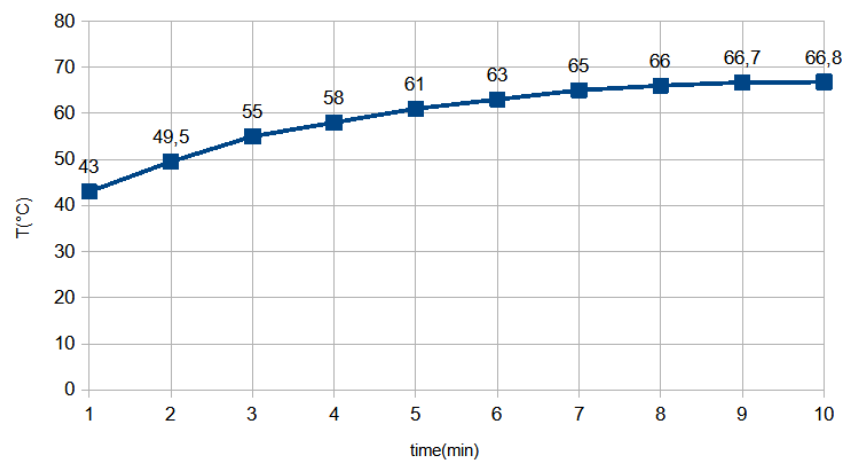


Table 9. Experiment 2.1. data table

## Experiment 2.2.

Paraffin wax heating experiment was carried out.

\* 40 grams of solid paraffin wax

\* 75 grams of liquid paraffin wax

The heating plate is set to 50 degrees Celsius.

The temperature of the heating plate is slightly higher due to previous use.

The conclusion drawn from the experiment: The melting temperature of the formed paraffin wax mixture increases rapidly. Thermal ranges are not sufficient for use for the project.

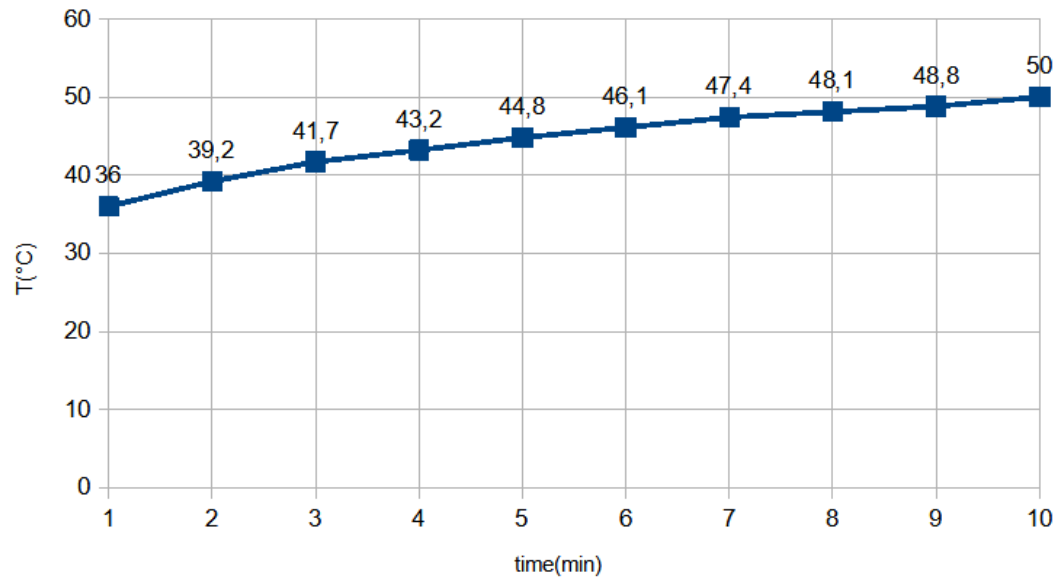


Table 10. Experiment 2.2. data table

### Experiment 2.3.

Paraffin wax heating experiment was carried out.

\* 50 grams of solid paraffin

\* 75 grams of liquid paraffin

The heating plate is set to 50 degrees Celsius.

Since the heating plate was hot from previous use, it was cooled slightly and the experiment was carried out.

The result of this experiment gave the desired result. The paraffin wax ratio we need to use to cool the server cabinet should be 1:1.5.

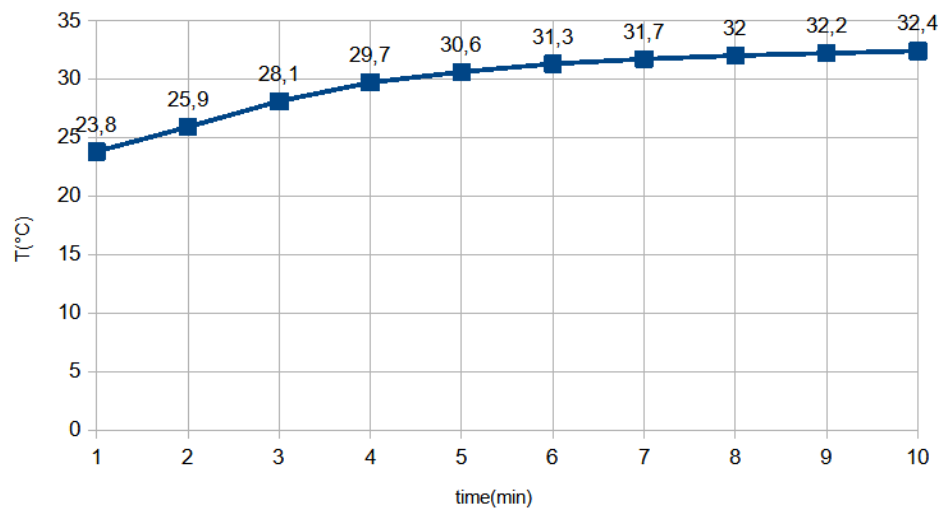


Table 11. Experiment 2.3. data table

## Experiment 2.4.

Paraffin wax heating experiment was carried out.

- \* 75 grams of solid paraffin

- \* 75 grams of liquid paraffin

The heating plate is set to 50 degrees Celsius.

Since the heating plate was hot from previous use, it was cooled slightly and the experiment was carried out.

The conclusion drawn from the experiment: the produced paraffin wax mixture did not show the desired performance. Temperature changes are irregular and rapid, which is a feature we do not want.

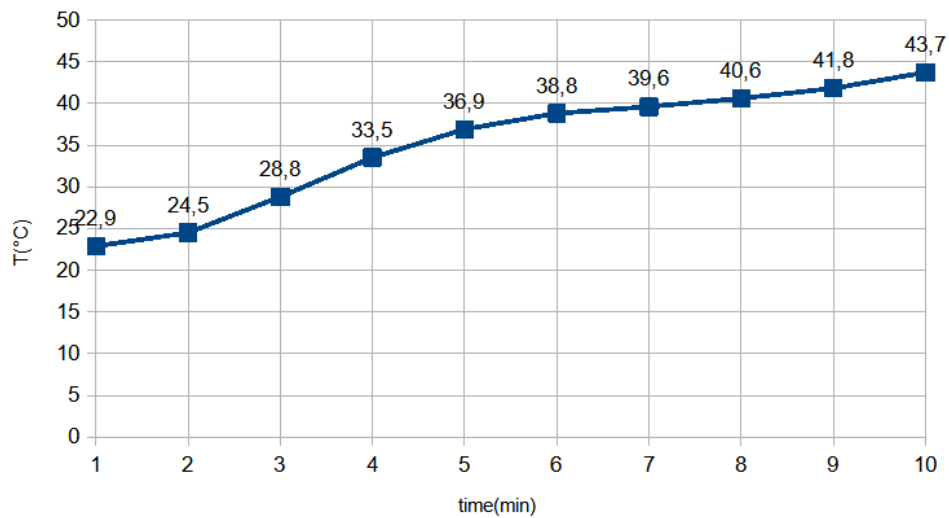


Table 12. Experiment 2.4. data table