

Experiment S-19

Dew Point and Dew Formation

Objectives

- To learn about Dew and Dew point.
- To measure Dew point and observe dew formation at that temperature.

Description

In this experiment you will measure the dew point in the room. Afterwards you will mix water at different temperatures to generate water in the temperature under the dew point and observe dew formation.


You will need:

- A beaker with cold water (around 12 °C or less)
- A beaker with water at room temperature .
- An empty beaker
- NeuLog NUL-203 temperature logger sensor or thermometer.

The beakers are included in the Panda accessories kit.



Instructions

- Press the icon on the top left of the Panda screen and pick the "Dew point" option (if it is not already selected).
- Observe your NeuLog Panda and check that the $^{\circ}\text{C}$ icon appears on the right side. If the $^{\circ}\text{F}$ icon appears, click on it to change it to $^{\circ}\text{C}$.
- Press the  icon to go back to the main screen.
- What is the dew point value in the room?

- Connect a NeuLog temperature sensor to the Panda; it will search and find it automatically. Alternatively, use a thermometer.
- Observe your NeuLog Panda and check that the $^{\circ}\text{C}$ icon appears on the right side for the external temperature sensor connected. If the $^{\circ}\text{F}$ icon appears, click on it to change it to $^{\circ}\text{C}$.
- Mix the cold and the room temperature water (be careful not to spill water on the sensors), so that the temperature of the mixture is 0.5-1 degrees lower than the measured dew point.
- Do you see Dew formation? (you can touch the beaker and see if you cleaned the dew).



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- Explain why the dew formed at this temperature.
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