WJEC Wales Biology A-level

SP Unit 3 03 - Respiration in Yeast

Flashcards

State the factor affecting the rate of respiration that is measured.

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Temperature.

How is the rate of respiration measured?

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By counting the number of carbon dioxide bubbles released in a given time eg. one minute.

Why must the yeast suspension be placed in the water bath for 2 minutes before starting?

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To allow the temperature of the yeast suspension to equilibrate.

Why is the rate of bubble formation proportional to the rate of respiration?

Why is the rate of bubble formation proportional to the rate of respiration?

Carbon dioxide is released as a product of respiration. The more carbon dioxide bubbles formed within a given time, the higher the rate of respiration.

What are the controlled variables of this practical?

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Volume and concentration of sucrose solution

Volume of yeast suspension

Time allowed for counting bubbles

What is Q_{10}?

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The change in rate of reaction caused by a 10 degree increase in temperature

Formula: rate at T+10 / rate at T

State a source of error in this practical.

State a source of error in this practical.

The rate of bubble formation may be too fast to be counted accurately.

How is the apparatus set up for this practical?

How is the apparatus set up for this practical?

Place a syringe of yeast suspension horizontally into a water bath, and place a weight on top the syringe.