Edexcel Biology International A-level

CP 15 - Respiration in yeast

Flashcards

What reagent can be used to indicate the rate of respiration, and how?

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A redox indicator.

It oxidises reduced NAD and FAD, so it itself is reduced, causing a change in colour.

What is the dependent variable of this practical?

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The rate of respiration measured by the time taken for the redox indicator to change colour.

Outline the procedure to investigate the effect of temperature on the rate of respiration.

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1. Set up the first water bath at 35°C
2. Use a pipette to place 10 cm^3 of the yeast suspension into one test tube and 1 cm^3 of the redox indicator into a different test tube.
3. Place both test tubes into the water bath and leave them for 5 minutes.
4. Quickly pour the redox indicator into the test tube containing the yeast, give it a stir with the glass stirring rod and start the stopwatch.
5. Repeat steps 1-4 with the remaining 4 temperatures.

Why are the test tubes left in the water bath for 5 minutes before mixing?

Why are the test tubes left in the water bath for 5 minutes before mixing?

To allow the solutions to reach the temperature of the water bath.

What are the controlled variables of this practical?

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Volume of yeast culture

Volume of redox indicator

State the hazards and safety precautions involved in this practical.

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Redox indicator is a potential irritant, avoid contact with skin.