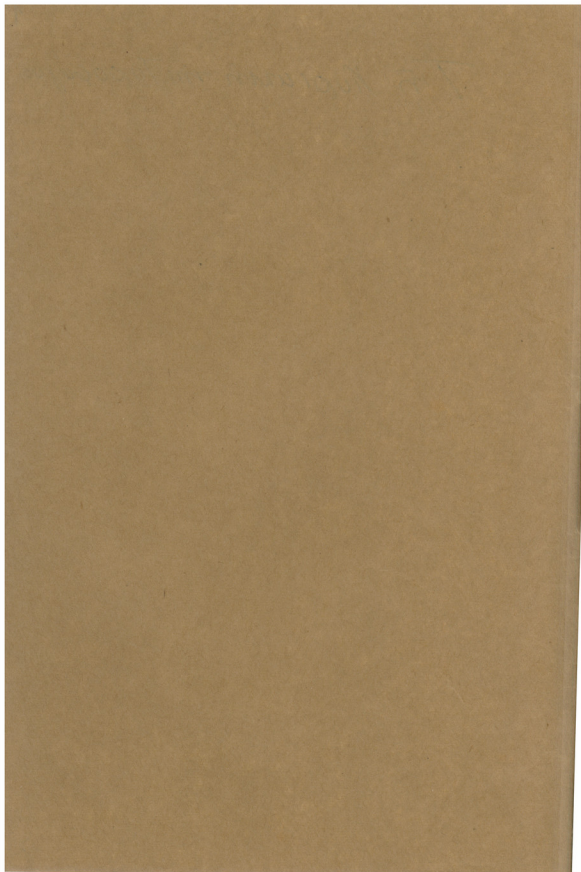


Τῆς Κοινωνίας ἡμιστοροβίου



2

Δόση Λοττερινού

Νέ ανλιγραφή

Ανλεγραφή

Δόξα τῷ Θεῷ

καὶ τῷ βασιλεῖ

Βασιλεῖ

The purpose of this experiment is to determine the effect of temperature on the rate of reaction between hydrogen peroxide and potassium iodide.

Chemical equation: $2H_2O_2 \rightarrow 2H_2O + O_2$

The reaction is catalyzed by potassium iodide. The rate of reaction is measured by the volume of oxygen gas produced over a fixed period of time.

The experiment is carried out at different temperatures. The volume of oxygen gas produced is measured using a gas syringe.

The results show that the rate of reaction increases with increasing temperature. This is because the molecules have more kinetic energy and are more likely to collide with sufficient energy to overcome the activation energy barrier.

The following table shows the results of the experiment. The volume of oxygen gas produced is measured in cm³.

Temperature (°C) | Volume of oxygen gas produced (cm³)

20 | 10

30 | 20

40 | 40

50 | 80

The purpose of this experiment is to determine the effect of temperature on the rate of reaction.

Objective: To study the effect of temperature on the rate of reaction.

Introduction: The rate of a chemical reaction is affected by several factors, including temperature. As temperature increases, the kinetic energy of the molecules increases, leading to more frequent and more energetic collisions, which results in a faster reaction rate.

Materials: Sodium thiosulfate solution, Hydrochloric acid, Conical flask, Stopwatch, Water bath, Thermometer.

Procedure: 1. Prepare a solution of sodium thiosulfate in a conical flask. 2. Add a fixed volume of hydrochloric acid to the flask. 3. Place the flask in a water bath at a specific temperature. 4. Start the stopwatch when the reaction begins. 5. Record the time taken for the reaction to complete.

Observations: The reaction rate increases as the temperature of the water bath increases. The time taken for the reaction to complete decreases with increasing temperature.

Results: The following table shows the time taken for the reaction to complete at different temperatures.

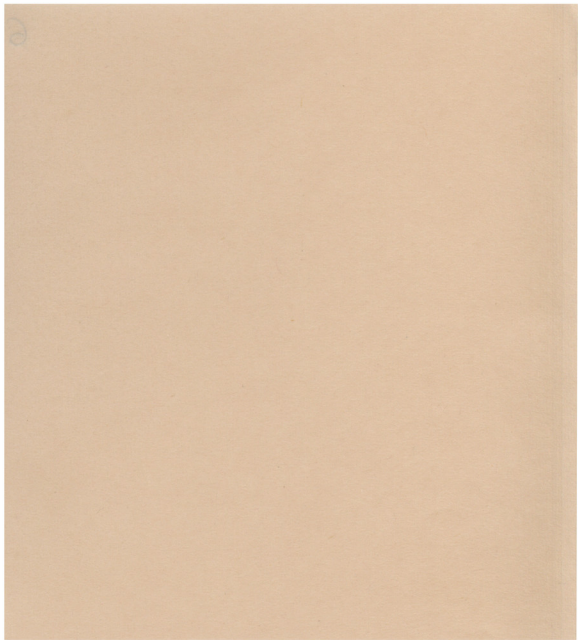
Discussion: The results of the experiment show that the rate of reaction increases with temperature. This is because higher temperatures provide more energy to the molecules, increasing the number of effective collisions.

Conclusion: The rate of reaction is directly proportional to the temperature. As temperature increases, the rate of reaction also increases.

Precautions: 1. Use accurate measuring instruments. 2. Maintain a constant temperature throughout the experiment. 3. Repeat the experiment to get accurate results.

References: 1. Chemistry for Dummies, 2. NCERT Chemistry textbook.

6



7

Δόση Ἀποτίχων

Νῦ ἀντιγραφῆ

Ἀντιγραφή

2

Δόξα - Αποστολή

Οι Αποστολές

Επίσκοπος

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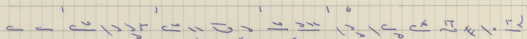
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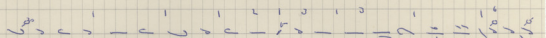
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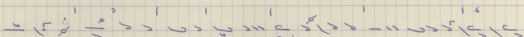
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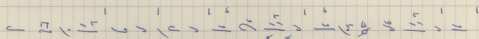
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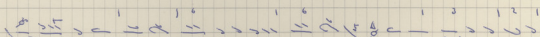
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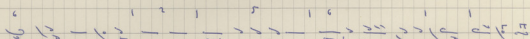

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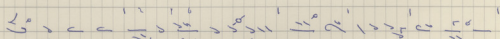

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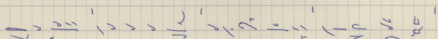

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 βια λω ε ε ε ε ξω ω ω ω ω ω ω

Νηλέως Α. Κακαριόβου

25 Ιουνίου 1961

Νικόλαος Τ. Βλάχοιτουλος

The purpose of this experiment is to determine the effect of temperature on the rate of reaction.

Reaction: $2H_2O_2 \rightarrow 2H_2O + O_2$

Procedure: A series of test tubes containing a fixed volume of hydrogen peroxide solution were placed in a water bath at different temperatures. A fixed volume of potassium iodide solution was added to each test tube. The time taken for a fixed volume of oxygen gas to be evolved was measured.

Results: The following table shows the results of the experiment. The rate of reaction is defined as the volume of oxygen gas evolved per unit time.

Table 1: Rate of reaction of hydrogen peroxide with potassium iodide at different temperatures.

Table 2: Rate of reaction of hydrogen peroxide with potassium iodide at different temperatures.

Table 3: Rate of reaction of hydrogen peroxide with potassium iodide at different temperatures.

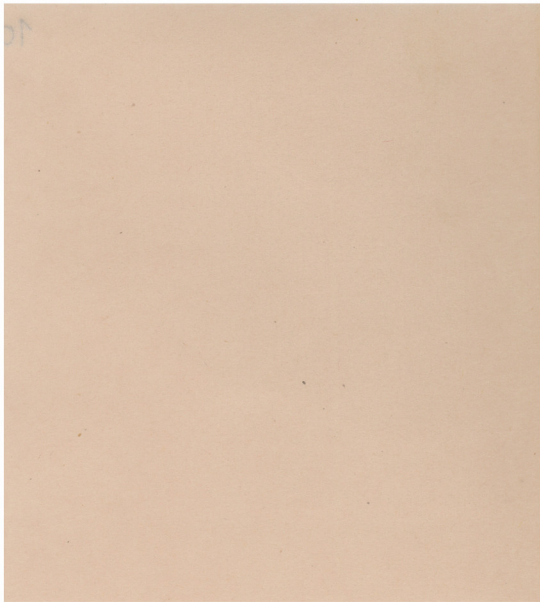
Table 4: Rate of reaction of hydrogen peroxide with potassium iodide at different temperatures.

Table 5: Rate of reaction of hydrogen peroxide with potassium iodide at different temperatures.

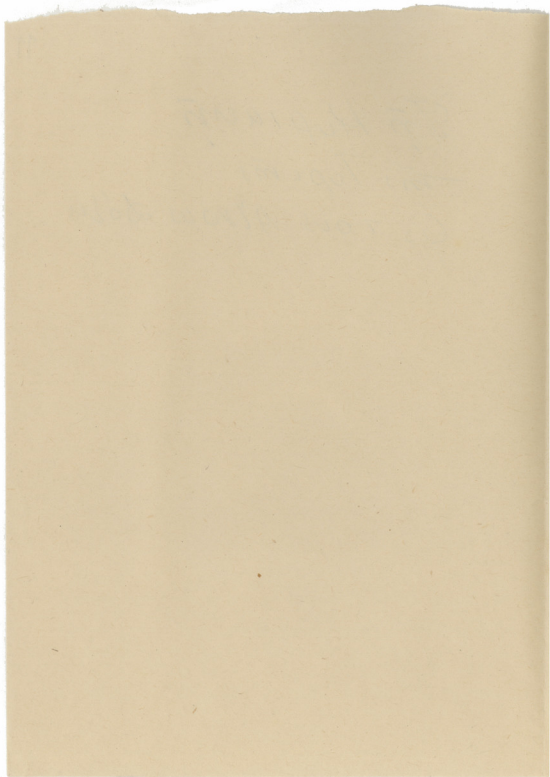
Table 6: Rate of reaction of hydrogen peroxide with potassium iodide at different temperatures.

Table 7: Rate of reaction of hydrogen peroxide with potassium iodide at different temperatures.

10



Ἰῆ Κυριουῦ
—ῆς Τυριῆς
Εἰς τοὺς ἄλλους δόξου



Einige Beispiele für die Anwendung der Kettenregel

$$f(x) = \sin(x^2) \quad f'(x) = \cos(x^2) \cdot 2x = 2x \cos(x^2)$$

$$f(x) = \ln(x^2 + 1) \quad f'(x) = \frac{1}{x^2 + 1} \cdot 2x = \frac{2x}{x^2 + 1}$$

$$f(x) = e^{\sin(x)} \quad f'(x) = e^{\sin(x)} \cdot \cos(x) = \cos(x) e^{\sin(x)}$$

$$f(x) = \frac{1}{x^2} = x^{-2} \quad f'(x) = -2x^{-3} = -\frac{2}{x^3}$$

$$f(x) = \sqrt{x} = x^{1/2} \quad f'(x) = \frac{1}{2} x^{-1/2} = \frac{1}{2\sqrt{x}}$$

$$f(x) = \frac{1}{x^2} = x^{-2} \quad f'(x) = -2x^{-3} = -\frac{2}{x^3}$$

$$f(x) = \frac{1}{x^2} = x^{-2} \quad f'(x) = -2x^{-3} = -\frac{2}{x^3}$$

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Книжки и журналы, которые вы читаете, должны быть интересны и полезны.

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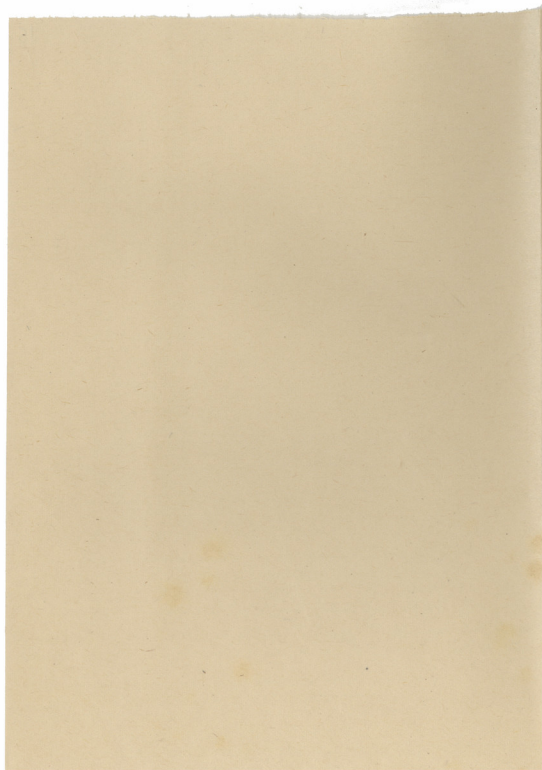
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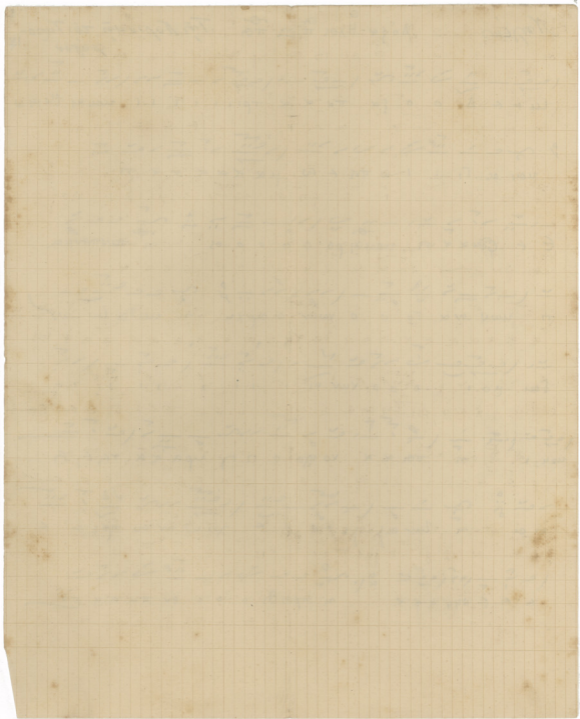
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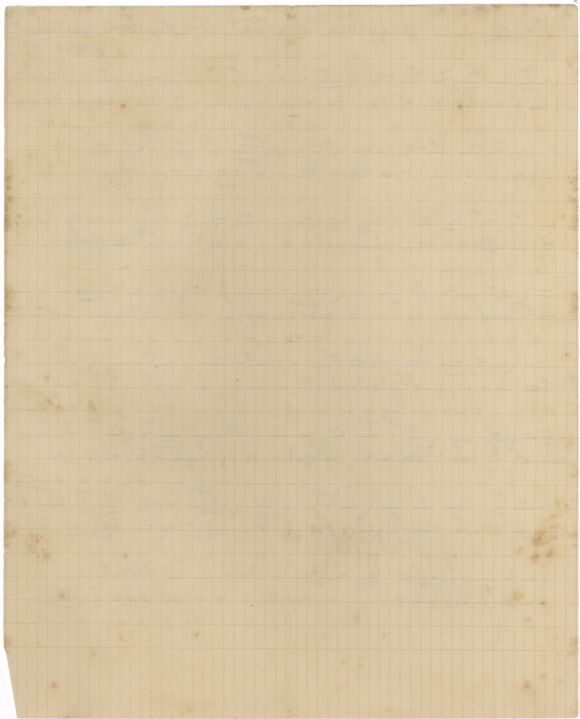
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The Migration and Tuberculosis

Ed. von A. von Döber

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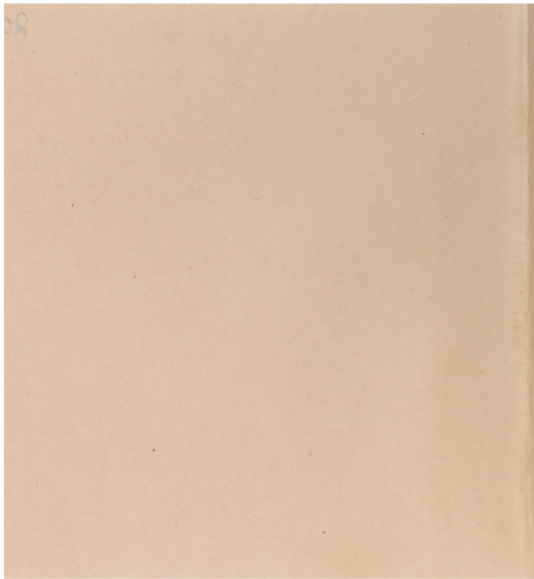
Δόξα

Εγώ και η οικογένειά μου
Την Κυριακήν της Τροφάης

N. A. K.

B. N. K.

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Τριώδιον.