

## RATES

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**Rate:**

**Units:**

**Factors affecting the rate of reaction:**

**Collision theory:**

**Temperature:**

**Concentration:**

**Pressure:**

**Surface area:**

**Catalyst:**

**Activation energy:**

**Enthalpy profile diagrams with activation energy:**

**With a catalyst:**

**Boltzmann distribution:**

In a sample of gas or liquid:

Boltzmann distribution curve:

The effect of temperature on a boltzmann distribution curve:

The effect of a catalyst on a boltzmann distribution curve: