



What is the boiling point of water on Kelvin Scale?

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- A. 0 K
- B. 100 K
- C. 273 K
- D. 373 K

Show Answer

Correct Answer: D (373 K)

Explanation:

The boiling point of water is the temperature at which water changes its state from liquid to gas. It depends on atmospheric pressure, but at standard atmospheric pressure (1 atmosphere or 101.325 kPa), the boiling point of water is 100°C or 373.15 K. In the Kelvin scale, absolute zero is at 0 K, and the boiling point of water is 373 K. This means that the difference between the boiling point of water and absolute zero is 373 K.

Boiling Point of Water

Water is a vital substance for life, and its boiling point is a critical property that has numerous practical applications. The boiling point of water is the temperature at which it changes its state from a liquid to a gas. This change of state is a result of the increased kinetic energy of water molecules as heat is applied.

The boiling point of water depends on the atmospheric pressure, with a higher atmospheric pressure resulting in a higher boiling point. At standard atmospheric pressure (1 atmosphere or 101.325 kPa), the boiling point of water is 100°C or 212°F.

The Kelvin scale is a temperature scale that uses absolute zero as its reference point. Absolute zero is the temperature at which all substances have zero kinetic energy. In the Kelvin scale, the boiling point of water is 373 K. This means that



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the difference between the boiling point of water and absolute zero is 373 K.

Knowing the boiling point of water is essential in various fields, such as cooking, chemistry, and weather forecasting. It is also a crucial factor in the design and operation of steam-based systems, such as power plants and steam engines.