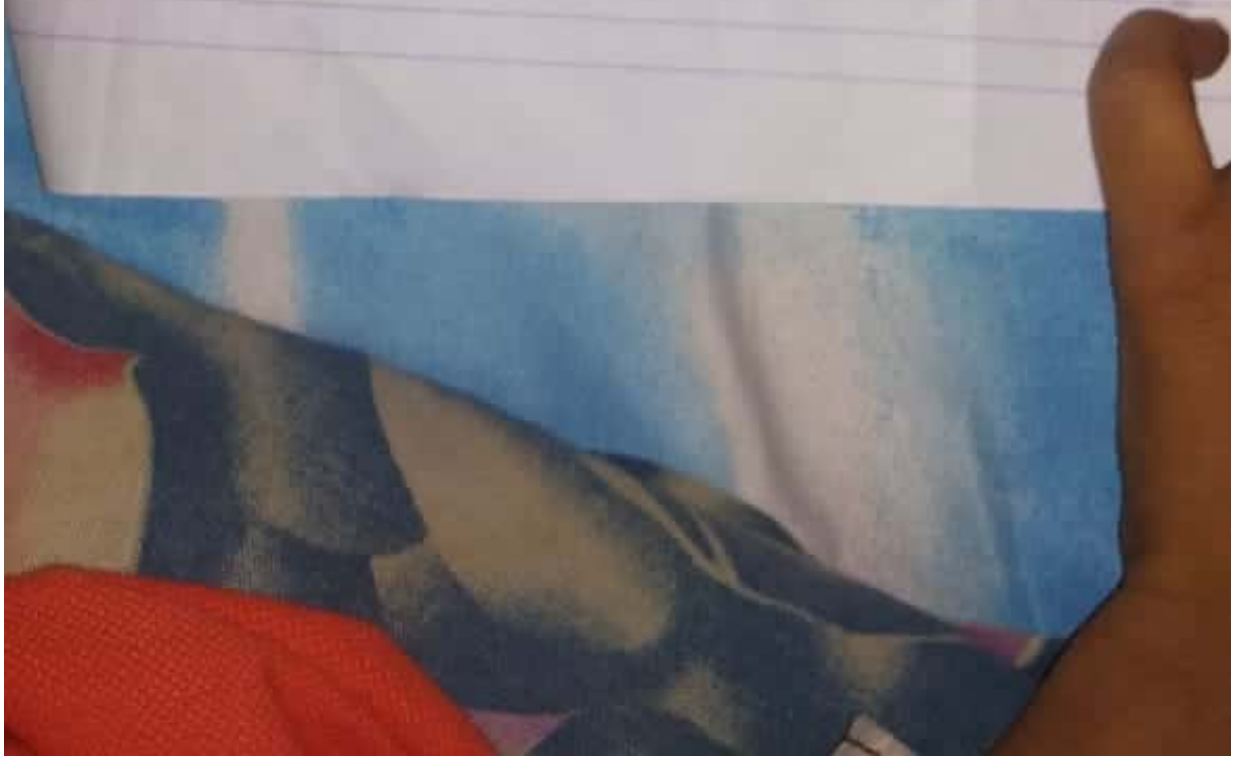
De-broglie wavelength is the wavelength associated with a massive particle and is related to its momentum p. through the planck constant, h

$$\lambda = \frac{h}{p} = \frac{h}{mv}$$

wave like behavior of matter was first experimentally demonstrated by George paget Thomson's thin metal diffraction experimented and independently in the Davisson Davisson Germes experiment both using electrons and it has also been confirmed for other elementary particles neutral atoms and even molecules.

by
Kaushlendra Kumar



Part I (ii) Inorganic Chemistry

Atomic Structure

Idea of de Broglie matter waves →

Matter waves are a central part of the theory of quantum mechanics, being an example of wave particle duality. All matter exhibits wave like behavior. For example a beam of electrons can be diffract just like a beam of light or a water wave. In most cases however the wavelength is to small to have a practical impact on day to day activiti

The Concept that matter behaves like a wave was proposed by Louis de Broglie in 1924. It is also referred to as the de Broglie hypothesis. Matter waves are referred to as de Broglie waves.

Sub Part 1 Sub

1 Gaseous State

Equation of State :→ Equation of State are mathematical relationship between the variables of temperature, pressure Volume and moles of a pure substance or a mixture

In other word we can also say that an equation of State is an expression relating the density of a fluid with its temperature and pressure. Note that the density is related to the number of moles and the volume. So it takes care of these future variables together.

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