

1. According to de broglie hypothesis, a mass moving with certain velocity will possess wave nature and it's wavelength will be given by

$$\text{Wavelength} = h/mv$$

Where mv = momentum of moving mass

2. Also we know that for moving masses $K = p^2/2m$.Therefore

$$p = (2Km)^{1/2}$$

So, the equation becomes

$$\text{Wavelength} = h/(2Km)^{1/2}$$

3. This property can be experimentally observed for microscopic particles while electron microscope is based on this property.