



Here  $k$  is another constant having value  $4.94 \times 10^{15}$  C.G.S unit and another constant has a value  $1.43$  degree  $\cdot$  cm degree.

Multiplying both side by  $d\lambda$

$$E_{\lambda} d\lambda = k \lambda^{-5} e^{-a/\lambda T} d\lambda$$

Now  $E_{\lambda} d\lambda$  represents the amount of energy  $dE$  associated with the spectral region lying in the wavelength range  $\lambda$  and  $\lambda + d\lambda$  emitted by a black body at temp  $T$ .

$$\therefore dE = k \lambda^{-5} e^{-a/\lambda T} d\lambda \quad \text{--- (4)}$$

This expression is known as Wein's law of energy distribution.

This law, however as found not to record with the experimental curves of Lummer and Pringsheim. The success of Wein's law is that it holds good only in the region of shorter wavelengths at lower at higher temperature.