

Ex: λ_m for Sun light is $4753\text{\AA}$. $T = ?$

$$T = \frac{b}{\lambda_m} \Rightarrow T = \frac{2.888 \times 10^{-3}}{4753 \times 10^{-10}} \text{ K}$$

$$T = \frac{2.888 \times 10^{-3}}{0.4753 \times 10^{-6}} = 6.076 \times 10^3$$

$$\boxed{T = 6076 \text{ K}}$$

Ex: λ_m in the radiation from moon is $14 \mu\text{m}$.

$$T = \frac{b}{\lambda_m} = \frac{2.888 \times 10^{-3}}{14 \times 10^{-6}} = 0.2062 \times 10^3 = 206.2 \text{ K}$$

Note:

$$\lambda_m \propto \frac{1}{T} \Rightarrow T \uparrow, \lambda_m \downarrow$$

4000 $\text{\AA}$ — 7000 $\text{\AA}$

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