

- 2 At temperatures close to 0 K, the specific heat capacity c of a particular solid is given by $c = bT^3$, where T is the temperature and b is a constant, characteristic of the solid. The SI unit of specific heat capacity is $\text{J kg}^{-1} \text{K}^{-1}$.

What is the unit of constant b , expressed in SI base units?

- A $\text{m}^2 \text{s}^{-2} \text{K}^{-3}$
- B $\text{m}^2 \text{s}^{-2} \text{K}^{-4}$
- C $\text{kg m}^2 \text{s}^{-2} \text{K}^{-3}$
- D $\text{kg m}^2 \text{s}^{-2} \text{K}^{-4}$