

- 13** Heat is supplied at a constant rate to a liquid in a beaker. Just before it begins to boil, the temperature of the liquid was rising at 4.0 K per minute. All the liquid are boiled away after 40 minutes. The heat capacity of the beaker may be taken to be negligible.

What is the value of the ratio $\frac{\text{specific heat capacity}}{\text{specific latent heat of vaporisation}}$?

A $\frac{1}{10} \text{ K}^{-1}$

B $\frac{1}{40} \text{ K}^{-1}$

C $\frac{1}{160} \text{ K}^{-1}$

D $\frac{1}{640} \text{ K}^{-1}$