18 A liquid is maintained at its boiling point by means of an electric heater.

The constant rate at which the liquid boils away is measured for two different powers of the heater as shown.

power of heater	rate of loss of mass of liquid
P_1	m_1
P_2	m_2

For each power of the heater, P_1 or P_2, the rate of heat loss h to the environment is the same.

Which expression is correct for the specific latent heat of vaporisation of the liquid?

A $\dfrac{P_1}{m_1}$ **B** $\frac{1}{2}\left(\dfrac{P_1}{m_1}+\dfrac{P_2}{m_2}\right)$ **C** $\dfrac{(P_1-P_2)}{(m_1-m_2)}$ **D** $\dfrac{(P_1+P_2)}{(m_1+m_2)}$