

**Marks**  
**2**

- Isooctane, an important constituent of petrol, has a boiling point of 99.3 °C and a standard enthalpy of vaporisation of 37.7 kJ mol<sup>-1</sup>. What is  $\Delta S^\circ$  (in J K<sup>-1</sup> mol<sup>-1</sup>) for the vaporisation of isooctane?

Answer: