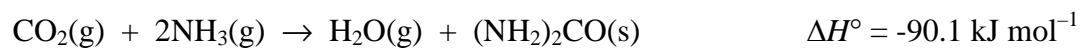
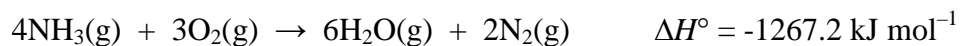


Marks
6

- The final step in the industrial production of urea, $(\text{NH}_2)_2\text{CO}$, is:



Using the following data, calculate the standard enthalpy of formation of solid urea.



Answer:

The formation of urea in the industrial process is only spontaneous below 821°C .
What is the value of the entropy change ΔS° (in $\text{J K}^{-1} \text{mol}^{-1}$) for the reaction?

Answer:

Rationalise the sign of ΔS° in terms of the physical states of the reactants and products.