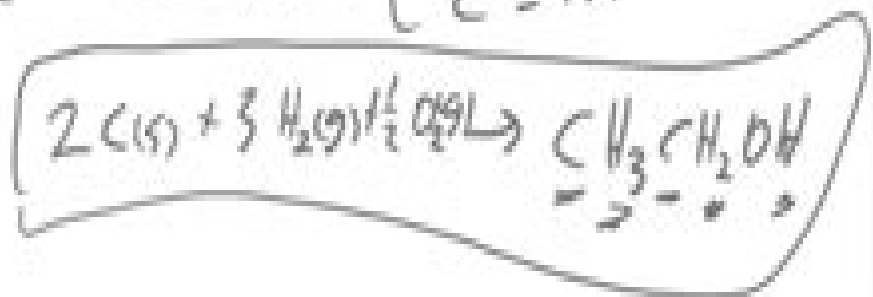


Calculation of $\Delta_f H^\circ$ Self-test

Which equation below defines the standard molar enthalpy of formation of ethanol, $\text{CH}_3\text{CH}_2\text{OH}$?

- a) $\text{C}_2\text{H}_6(g) + \frac{1}{2} \text{O}_2(g) \rightarrow \text{CH}_3\text{CH}_2\text{OH}(l)$
- b) $2 \text{C}(s) + 3 \text{H}_2(g) + \frac{1}{2} \text{O}_2(g) \rightarrow \text{CH}_3\text{CH}_2\text{OH}(l)$
- c) $\text{CO}(g) + \text{CH}_4(g) + \text{H}_2(g) \rightarrow \text{CH}_3\text{CH}_2\text{OH}(g)$
- d) $\text{H}_2\text{O}(g) + 2 \text{C}(s) + 2 \text{H}_2(g) \rightarrow \text{CH}_3\text{CH}_2\text{OH}(l)$
- e) $\text{CH}_3\text{CH}_2\text{OH}(l) + 3 \text{O}_2(g) \rightarrow 2 \text{CO}_2(g) + 3 \text{H}_2\text{O}(g)$

$$\begin{aligned} P &= 1 \text{ bar} \\ T &= 298 \text{ K} \\ C &= 1 \text{ M} \end{aligned}$$



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Didier Musso



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