**中五化學 熱力學**

答案

**利用標準燃燒焓變計算標準反應焓變**

已知：

1. [C2H2(g)] = -1299 kJ mol-1
2. [H2(g)] = -285.8 kJ mol-1
3. [C2H6(g)] = -1560 kJ mol-1

計算以下反應的標準反應焓變：

C2H2(g) + 2H2(g) C2H6(g)

**路經1**

C2H2(g) + 2H2(g) C2H6(g)

**路經2**

[C2H6(g)]

+ \_\_O2(g)

[H2(g)]

+ \_1\_O2(g)

[C2H2(g)]

+ \_\_O2(g)

2CO2(g) + 3H2O(l)

= ([C2H2(g)] x\_\_1\_\_) + ([H2 (g)] x\_\_2\_\_) + (-[C2H6] x\_\_1\_\_)

= (-1299) + (-285.8 x 2) + (+1560)

= -310.6 kJ mol-1