Question #78027

The symbol _____ stands for the energy required to break bonds minus the energy released when bonds are broken.

A. ΔE

B. ΔG

C. ΔH

D. ΔS

E. ΔT

The right answer is B. ΔG.

Why? Because ΔG is the symbol of Gibbs free energy, which means differences in energies between two states: before reaction and after it. So, the energy required to break bonds (line AB on figure 1 ($\Delta G^{\neq}$)) minus the energy released when bonds are broken (line BC on figure 1) is equal to Gibbs free energy ($\Delta G°$).
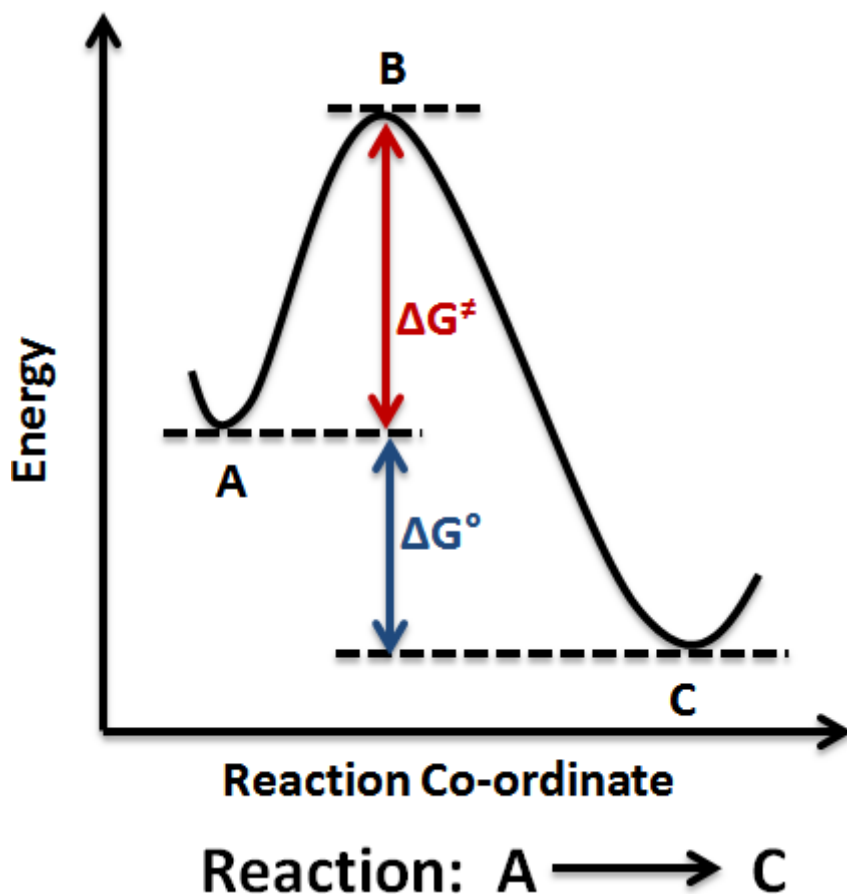

Figure 1. Reaction Coordinate Diagram for favorable reaction [1].

References:

1) https://en.wikipedia.org/wiki/Energy_profile_(chemistry)