

## Answer on Question #73422 - Chemistry - General Chemistry

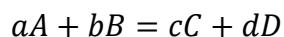
### Question:

Complete this statement.  $\Delta G = \Delta G^\circ$  when

### Answer:

$\Delta G = \Delta G^\circ$  when the ratio of standard state  $Q_0$  and real  $Q$  concentrations equal to 1.

For the chemical reaction:



$$\Delta G = \Delta G^\circ + 2.3RT \log(Q/Q_0)$$

$$Q = \frac{C_C^c \cdot C_D^d}{C_A^a \cdot C_B^b}$$

$$Q_0 = \frac{(C_C^0)^c \cdot (C_D^0)^d}{(C_A^0)^a \cdot (C_B^0)^b}$$

Usually  $Q_0 = 1$ , and log of ratio determines by the quantity  $Q$ . But if this quantity is equal to 1 also, then  $Q_0 = Q = 1$ .