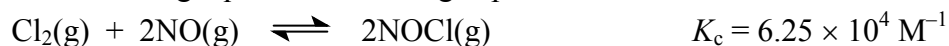


Marks
6

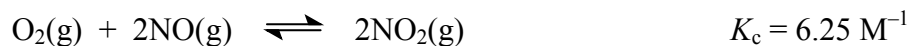
- Consider the following equilibrium in the gas-phase at 35 °C.



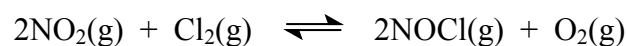
Equimolar amounts of NOCl(g) and Cl₂(g) are introduced into a sealed 1.00 L flask. When the system reaches equilibrium at 35 °C, the concentration of NO(g) in the flask is 4.04×10^{-4} M. What amount of Cl₂(g) (in mol) was initially added to the flask?

Answer:

At the same temperature (35 °C) O₂(g) reacts with NO(g) according to the equation:



Determine K_c for the following reaction.

 $K_c =$