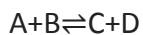


Answer on Question#48968 – Chemistry – Inorganic Chemistry

in the Reversible reaction $A+B\rightleftharpoons C+D$ The concentration of each C and D at equilibrium was 0.8 mole/litre then the equilibrium constant K_c will be.

Solution:

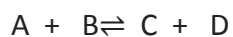


$$K_c = \frac{[C]^c [D]^d}{[A]^a [B]^b} = \text{const}$$

$$a = \nu A; b = \nu B; c = \nu C; d = \nu D;$$



$$[C]=[D]=0.8 \text{ mol/L};$$



$$[\text{]}, \text{ mol/L } ? \quad ? \quad 0.8 \quad 0.8$$

$$\nu \quad 1 \quad 1 \quad 1 \quad 1$$

$$[A]=[B]=[C]=[D]=0.8 \text{ mol/L};$$

$$K_c = \frac{[C]^c [D]^d}{[A]^a [B]^b} = 1$$

Answer: 1