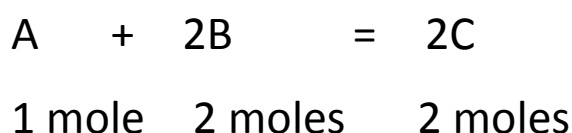


Answer on Question # 60313 - Chemistry / Physical Chemistry

Equilibrium concentration of C = 0,5 mole/l

So 2 l flask has $0,5 \times 2 = 1$ mole of C

$2 - 1 = 1$ mole - reacts to produce A and B according to reaction:



So 1 mole of C gives:

0,5 mole of A and 1 mole of B

Totally we have

A: $0,5 + 2 = 2,5$ mole

B: $1 + 3 = 4$ mole

Equilibrium concentration of A: $2,5 / 2 = 1,25$ moles/l;

Equilibrium concentration of B: $4 / 2 = 2$ moles/l

So

$$K_c = \frac{C_C^2}{C_A \cdot C_B^2} = \frac{0,5^2}{1,25 \cdot 2^2} = 0,05$$

Answer: 0,05 l/moles