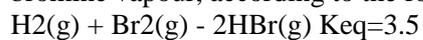


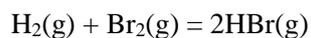
Task:

Hydrogen bromide is formed by a reaction between hydrogen gas and bromine vapour, according to the following equation



calculate the equilibrium concentrations of all gases if 0.40 moles of $\text{H}_2(\text{g})$ and 0.60 moles of $\text{Br}_2(\text{g})$ are placed in a 4.0L container

Answer:



	H_2	Br_2	2HBr
Before	0.4 moles	0.6 moles	0 moles
	Limiting reagent		
Equilibrium	0 moles	0.2 moles	0.8 moles
Concentration (M)	0	$0.2/4=0.05$	$0.8/4 = 0.2$

For concentration is used formula $C = n(\text{moles}) / V(\text{L})$

Answer:

$$C(\text{H}_2) = 0 \text{ M}$$

$$C(\text{Br}_2) = 0.05\text{M}$$

$$C(\text{HBr}) = 0.2 \text{ M}$$