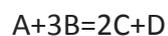


Answer on Question #51831, Chemistry, Physical Chemistry

Question: For the reaction $A+3B=2C+D$, initial mole of A is twice that of B. If at equilibrium moles of B and C are equal, then percentage of B reacted is ?

Answer:



To solve this problem we need to make a table:

	A	3B	2C	D
Initial concentration	1	1/2	0	0
Equilibrium concentration	1-x	1/2-3x	2x	x

We get: $\frac{1}{2} - 3x = 2x$; $x = 1/10$; $3x = 3/10 = 0.3$

So, the % of B reacted is: $0.3 \cdot 100 / 0.5 = 60\%$