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:

A+3B=2C+D

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	½-3x	2x	x

We get: ½ - 3x = 2x; x = 1/10; 3x = 3/10 = 0.3

So, the % of B reacted is: 0.3*100/0.5 = 60%