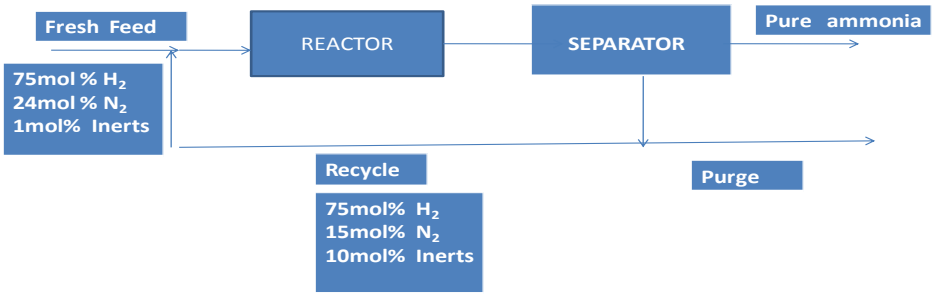
CHEMSOFT

PROBLEM -1

Ammonia is synthesized at 200 bar and 773 K by the reaction $N_2 + 3H_2 = 2NH_3$. The yield of ammonia is 0.45 mol/ mol of fresh feed .Flow sheet of the process (along with available composition) is shown below .



The single pass conversion for H_2 in the reactor is 20% .What is the amount of H_2 lost in the purge as a PERCENTAGE of H_2 in fresh feed ?

[NOTE: SOLUTIONS SHULD BE SUBMITTED IN MS EXCEL ONLY]

[Send your answer on: chemsoft.rasayans2k11@gmail.com By 15TH September 2011]