**Material Balances Around Combustion Chambers**

Follow the below steps to make your job easier when solving combustion problems:

* Draw the flow chart and make necessary labeling. These labeling include the flue gas which might contain unreacted O2, CO and hydrocarbons and as well as, CO2, H2O and N2.
* Be careful whether the feed gas is given in terms of wet or dry basis.
* Determine the amount of oxygen fed by using the excess air information or vice versa.
* Use molecular species balance or atomic species balance or extent of reaction method to solve the problem.



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Reference: Richard M. Felder, Ronald W. Rousseau, Elementary Principles of Chemical Processes, 3rdEdition.