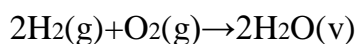


Limiting reagent or reactant:

In many situations, an excess of one or more substance is available for chemical reaction. Some of these excess substances will therefore be left over when the reaction is complete; the reaction stops immediately as soon as one of the reactant is totally consumed.

The substance that is totally consumed in a reaction is called limiting reagent because it determines or limits the amount of product. The other reactant present in excess are called as excess reagents.

Let us consider a chemical reaction which is initiated by passing a spark through a reaction vessel containing 10 mole of H_2 and 7 mole of O_2 .



Moles before reaction	10	7	0
Moles after reaction	0	2	10

The reaction stops only after consumption of 5 moles of O_2 as no further amount of H_2 is left to react with unreacted O_2 . Thus H_2 is a limiting reagent in this reaction.