

## Activity and selectivity.

(1) **Activity:** Activity is the ability of catalysts to accelerate chemical reaction, the degree of acceleration can be as high as  $10^{10}$  times in certain reactions. For example reaction between  $H_2$  and  $O_2$  to form  $H_2O$  in presence of platinum as catalyst takes place with explosive violence.

In absence of catalyst,  $H_2$  and  $O_2$  can be stored indefinitely without any reaction.

(2) **Selectivity:** Is the ability of catalysts to direct reaction to yield particular products (excluding other).

