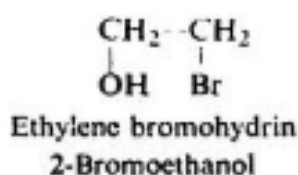
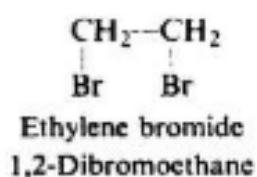
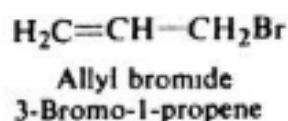


# Alkyl halides

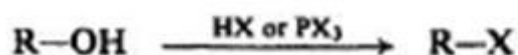
## 14.1 Structure and nomenclature

We shall consider as alkyl halides all compounds of the general formula  $R-X$ , where  $R$  is any simple alkyl or substituted alkyl group. For example:

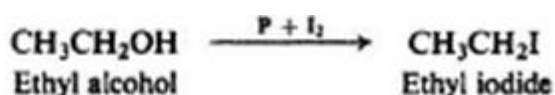
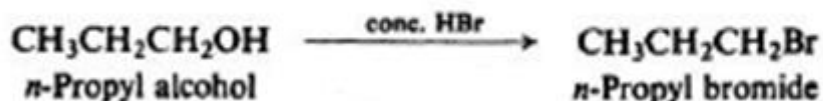


## PREPARATION OF ALKYL HALIDES

### 1. From alcohols.



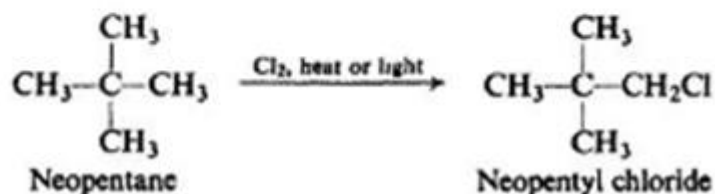
*Examples:*



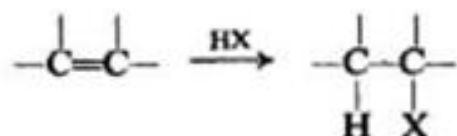
### 2. Halogenation of certain hydrocarbons.



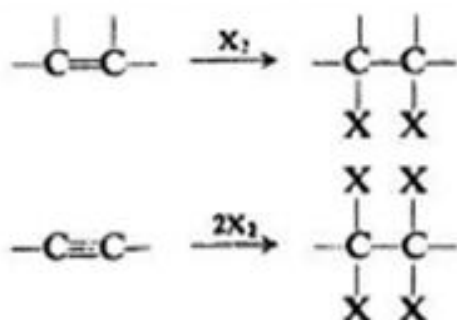
*Examples:*



### 3. Addition of hydrogen halides to alkenes.



### 4. Addition of halogens to alkenes and alkynes

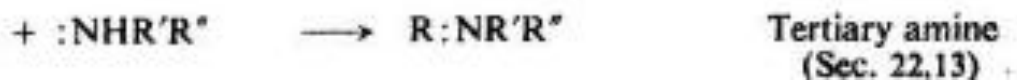
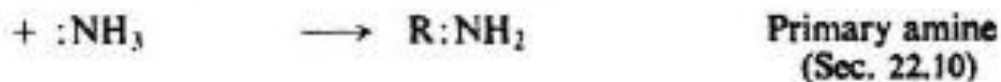
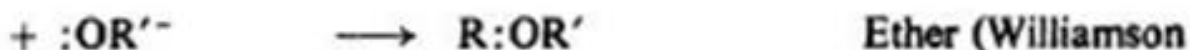


### 5. Halide exchange. Discussed in Sec. 14.4.

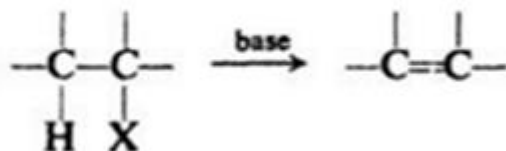


## REACTIONS

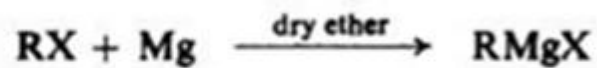
### 1. Nucleophilic substitution



## 2. Dehydrohalogenation: elimination.



## 3. Preparation of Grignard reagent.



## 4. Reduction.

