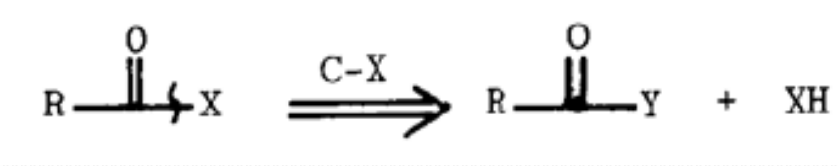
One-group C-X disconnection

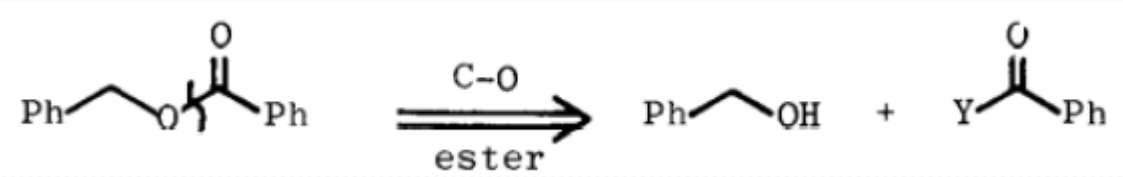
Need to recognize only one functional group to know that we can make the disconnection

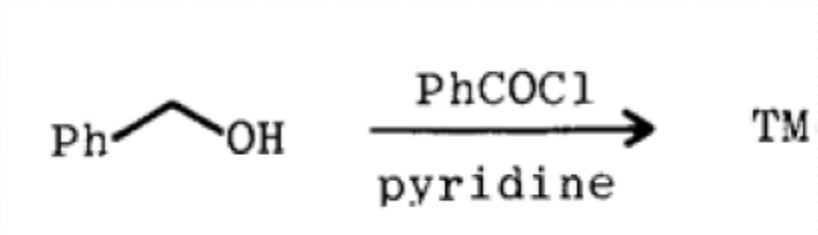
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Carbonyl derivatives RCO.X

Carbonyl derivatives RCO.X

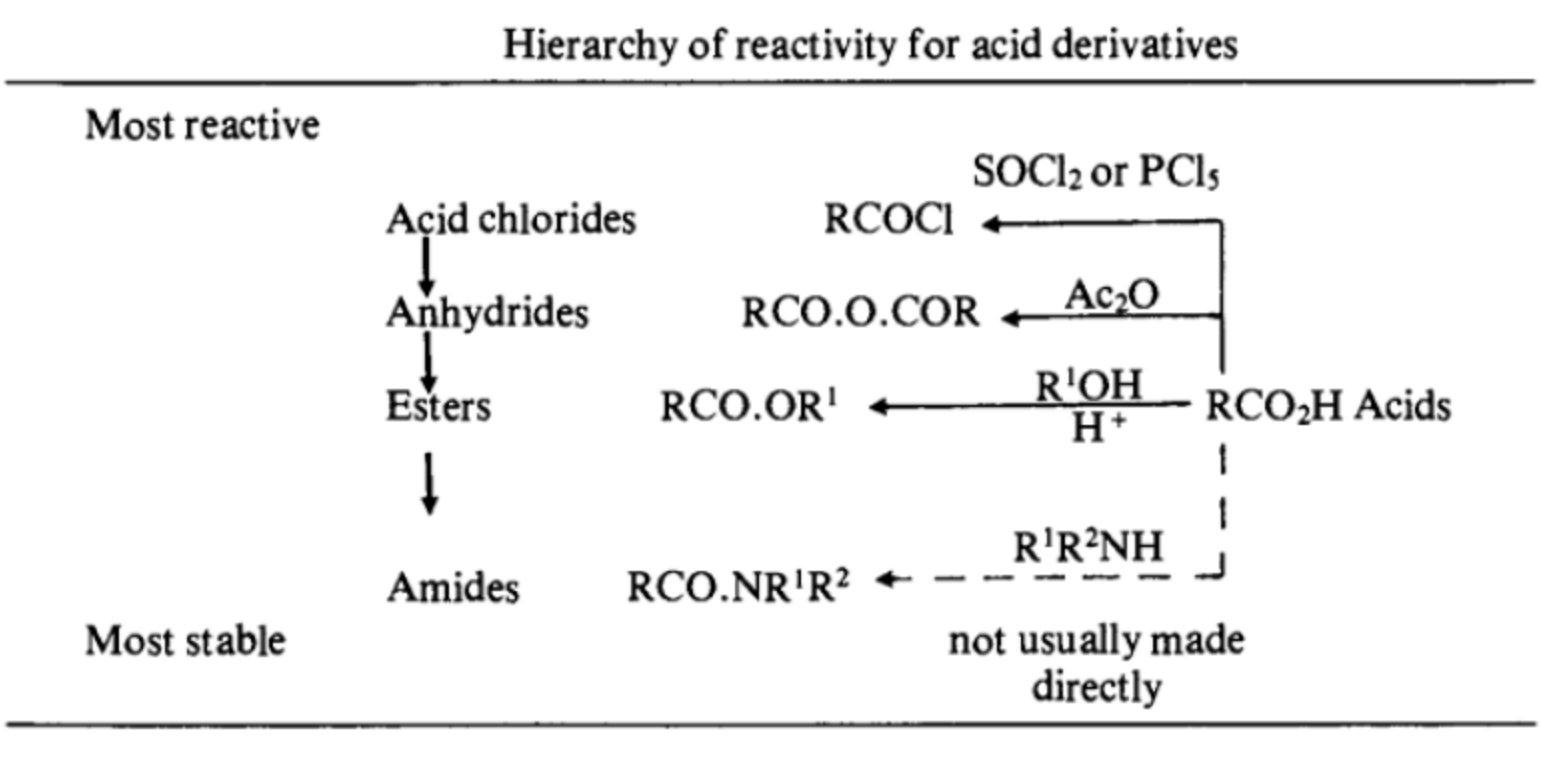






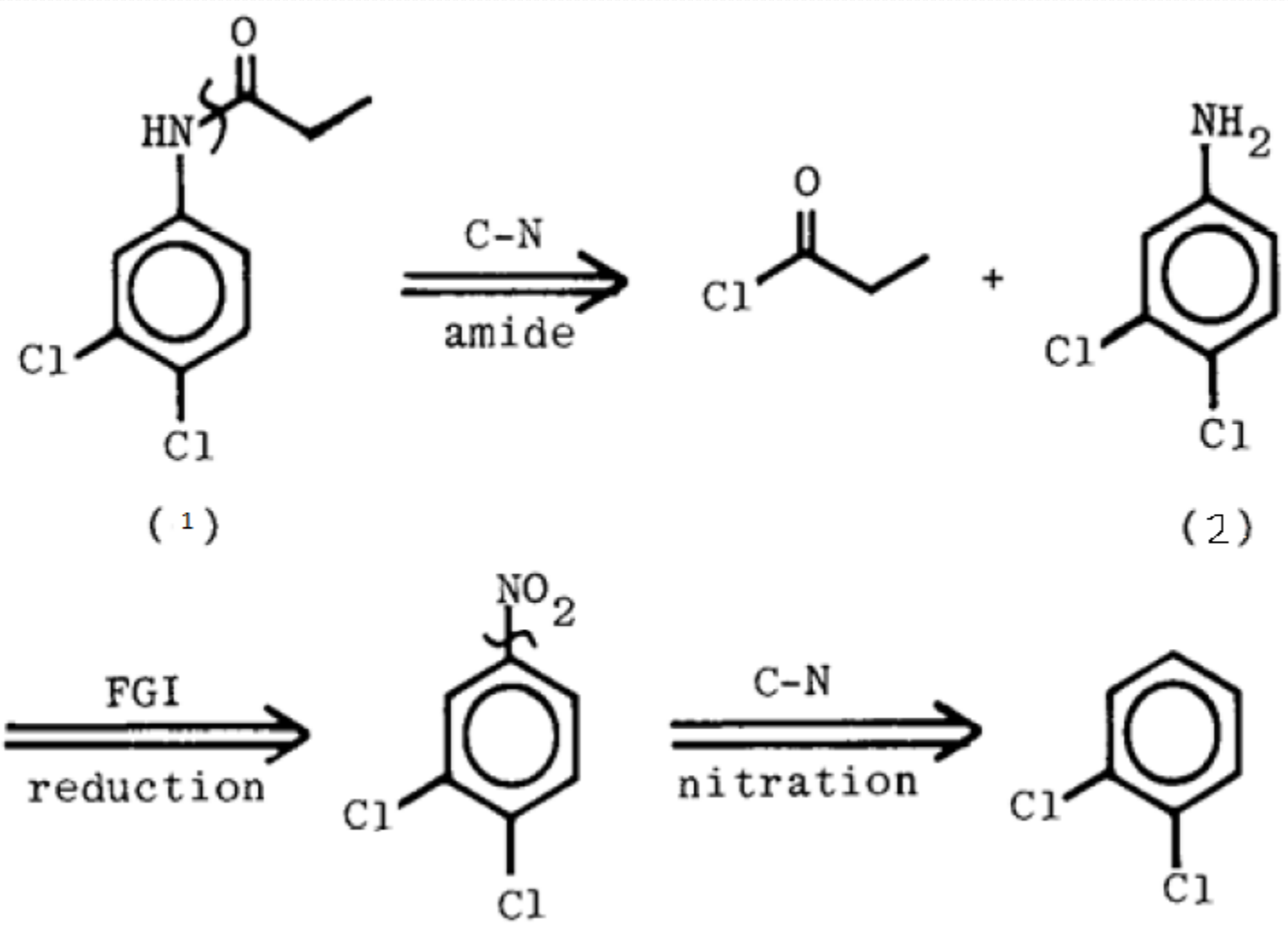
Acid chlorides are often used in these syntheses because
They are most active of all acid derivatives

Carbonyl derivatives RCO.X



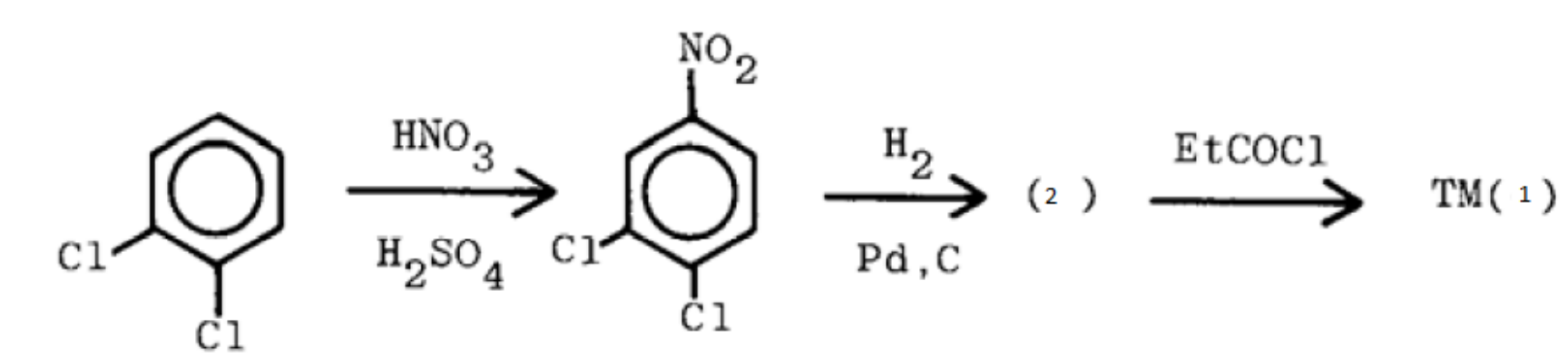
Carbonyl derivatives RCO.X

ANALYSIS



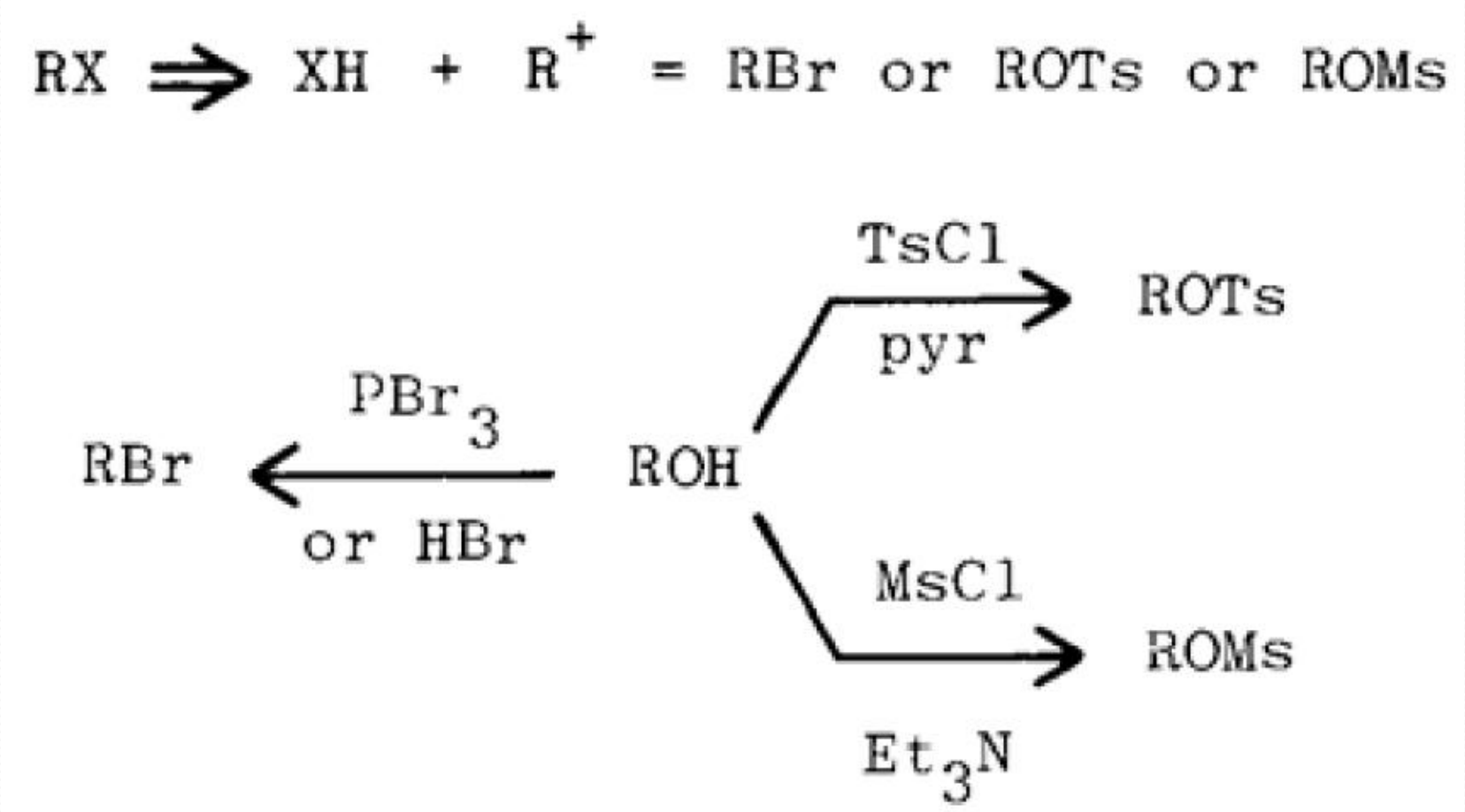
Carbonyl derivatives RCO.X

SYNTHESIS



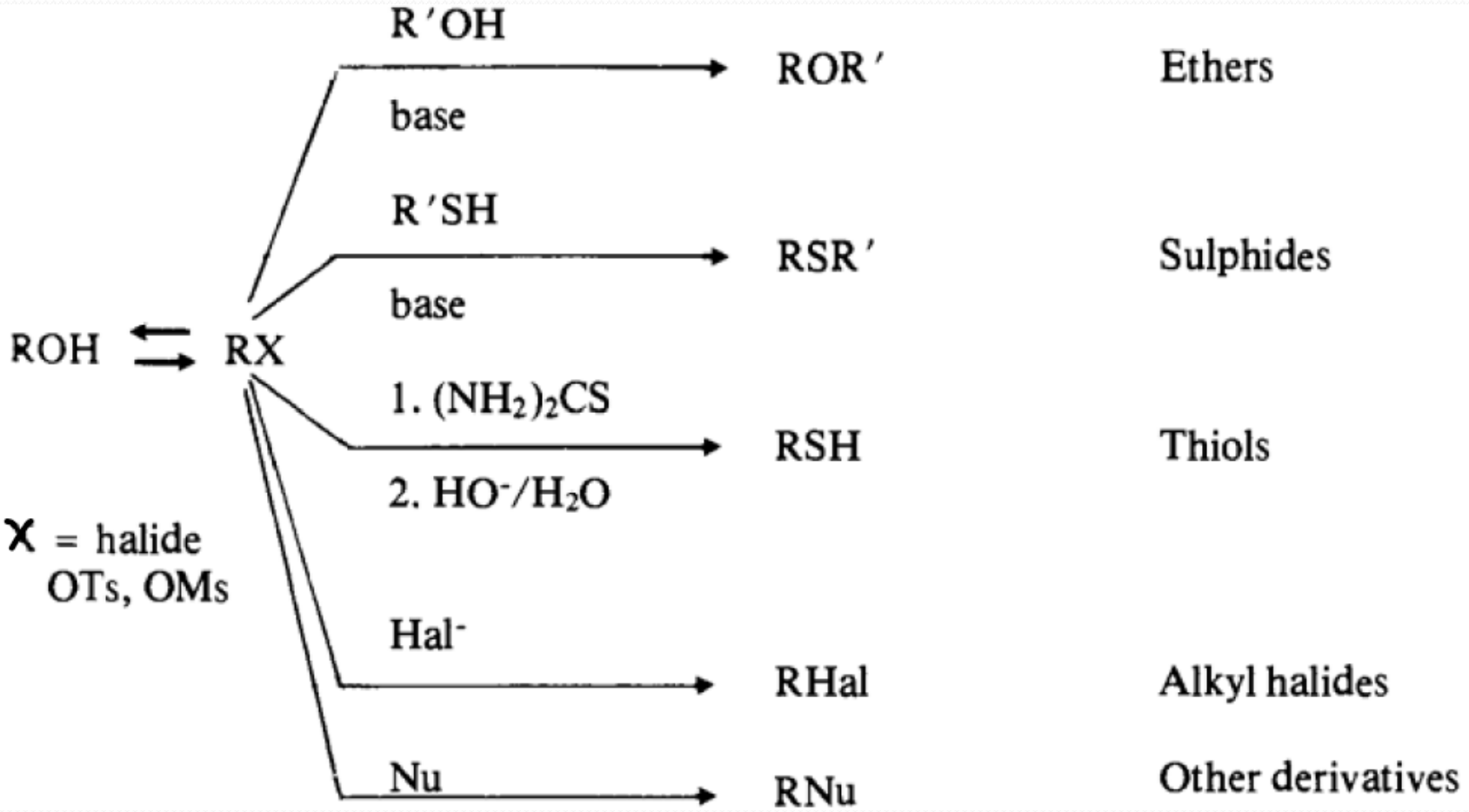
Alcohols, ethers, alkyl halides, sulphides

Alcohols, ethers, alkyl halides, sulphides



Alcohols, ethers, alkyl halides, sulphides

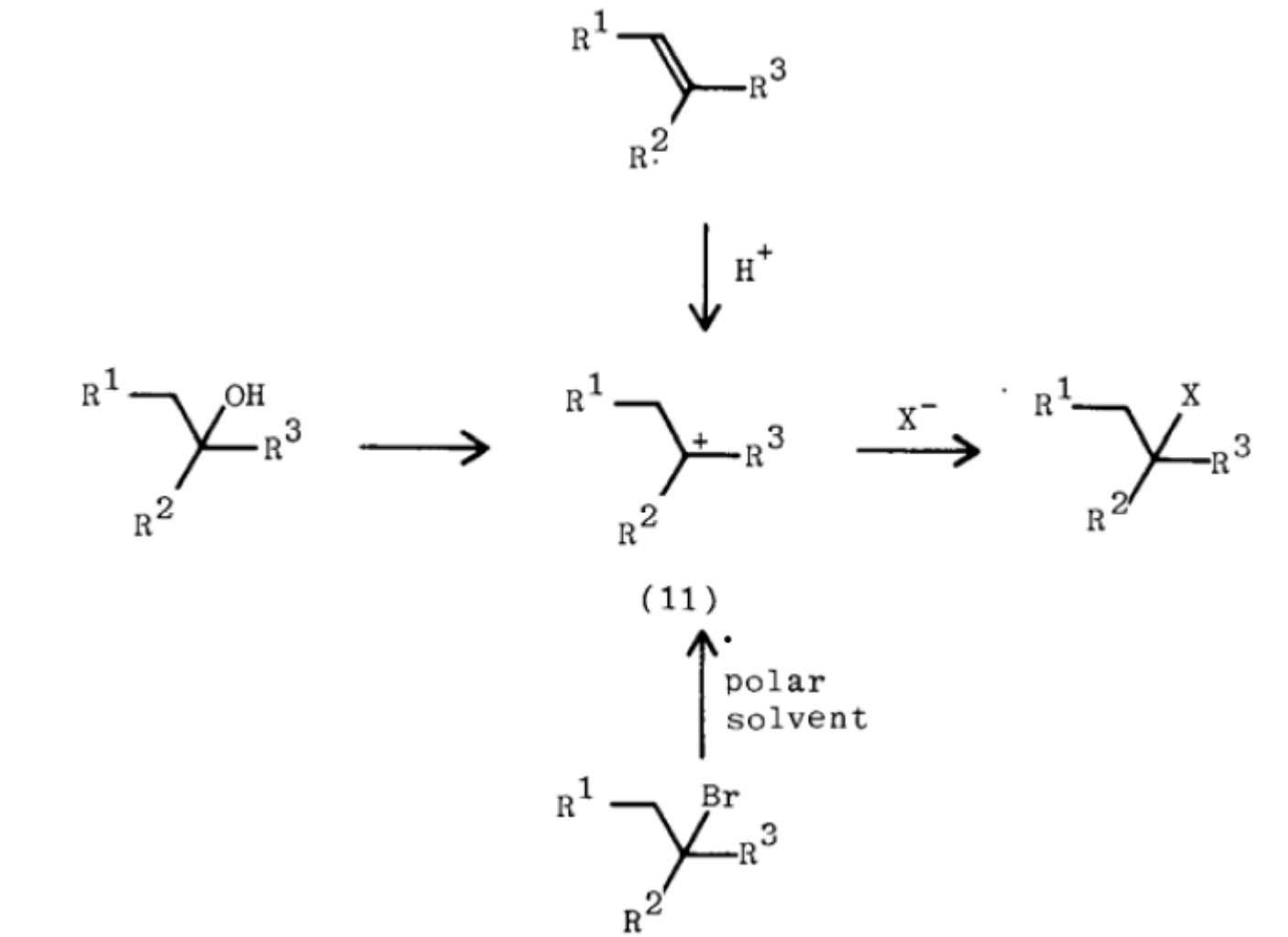
Table: Aliphatic compounds derived from alcohols



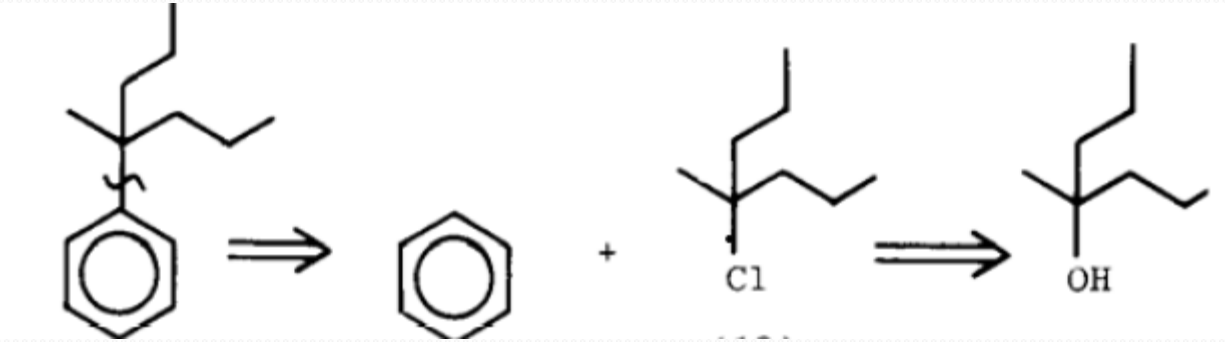
Alcohols, ethers, alkyl halides, sulphides

- Conditions must be chosen to chose the structure of the molecules.
- **Primary alkyl derivatives** react by S_N2 mechenism, so powerful nucleophiles and non-polar solvents are effective.
- **Tertiary compounds** react even more easily by S_N1 mechanism via stable carbonium ions (generated directly from alcohols, alkyl halides, alkenes);
  - powerful nucleophiles are not help here, but polar solvents and catalysis (acid) help by making OH a better leaving group.

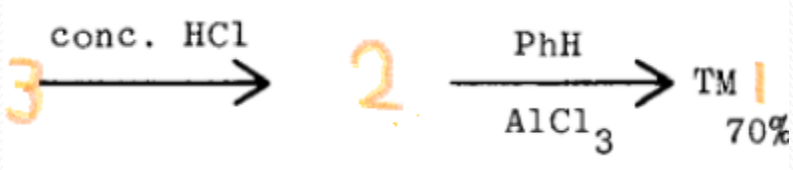
Alcohols, ethers, alkyl halides, sulphides



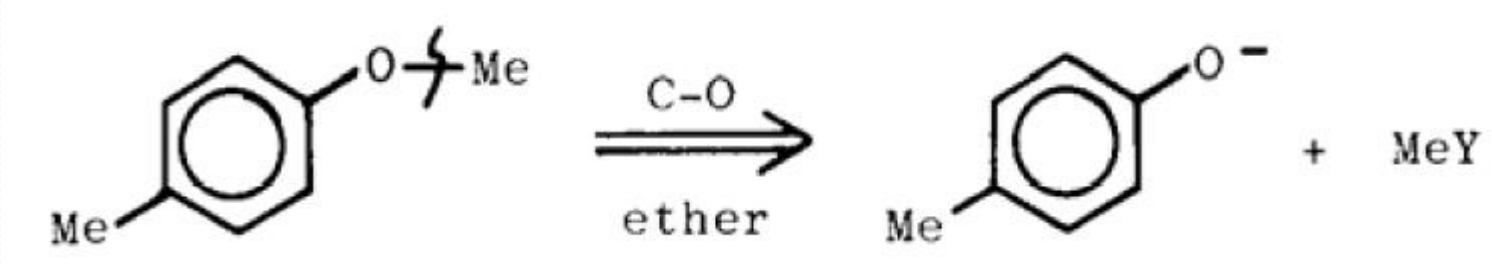
Alcohols, ethers, alkyl halides, sulphides



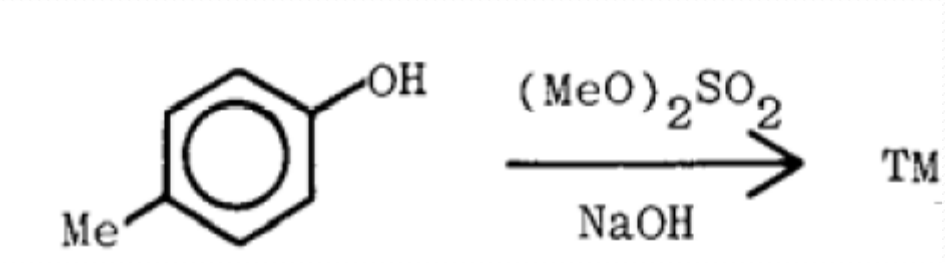
Alcohols, ethers, alkyl halides, sulphides



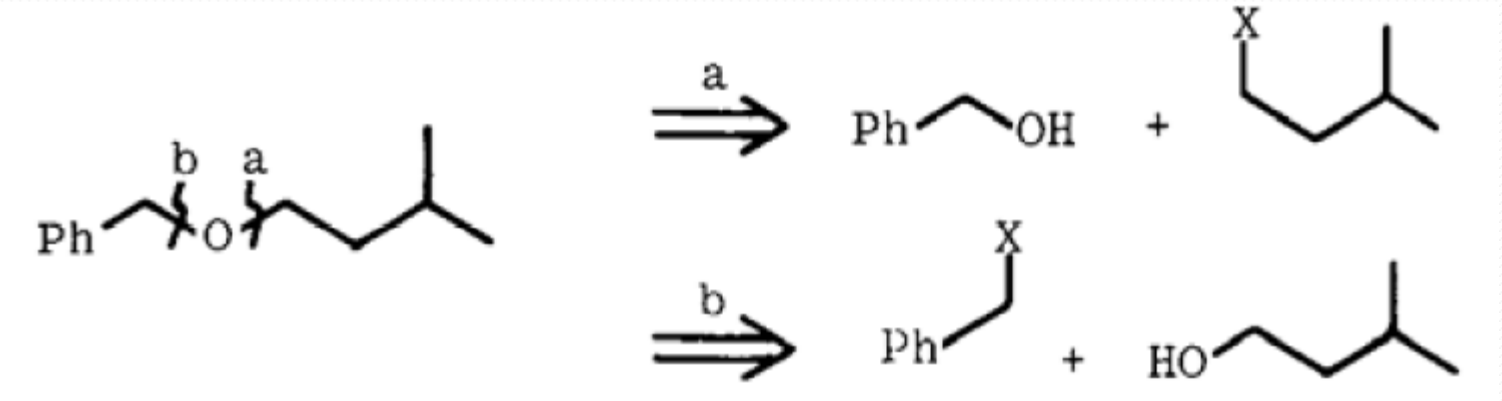
Alcohols, ethers, alkyl halides, sulphides



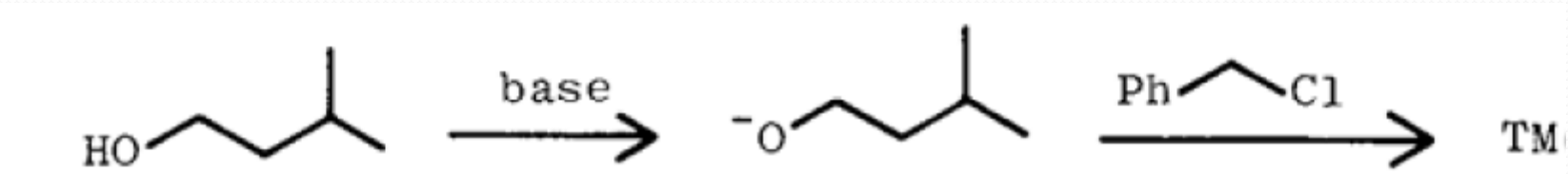
Alcohols, ethers, alkyl halides, sulphides



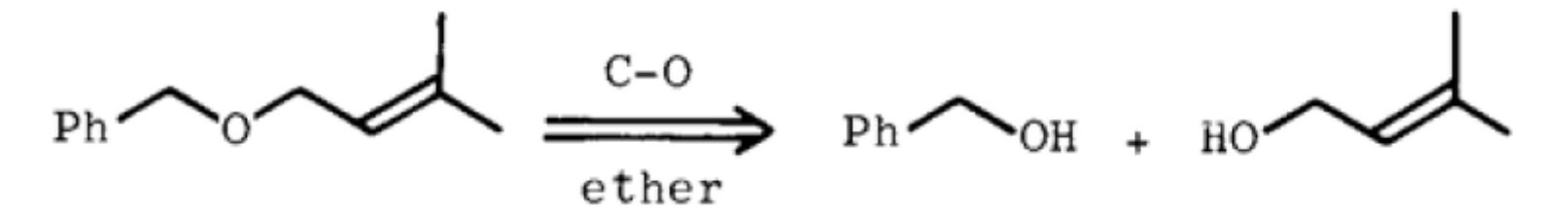
Alcohols, ethers, alkyl halides, sulphides

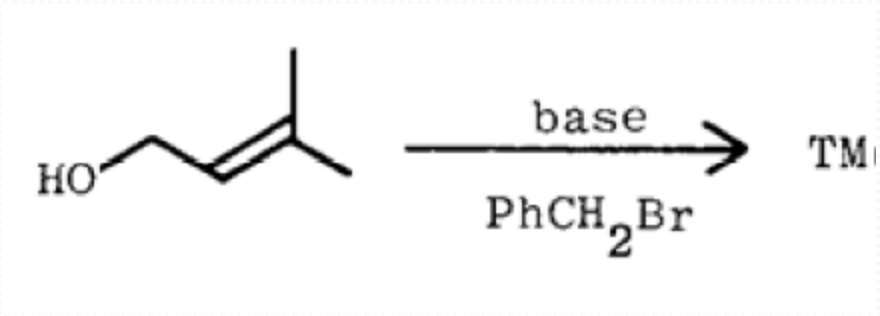


Alcohols, ethers, alkyl halides, sulphides



Alcohols, ethers, alkyl halides, sulphides





Alcohols, ethers, alkyl halides, sulphides

