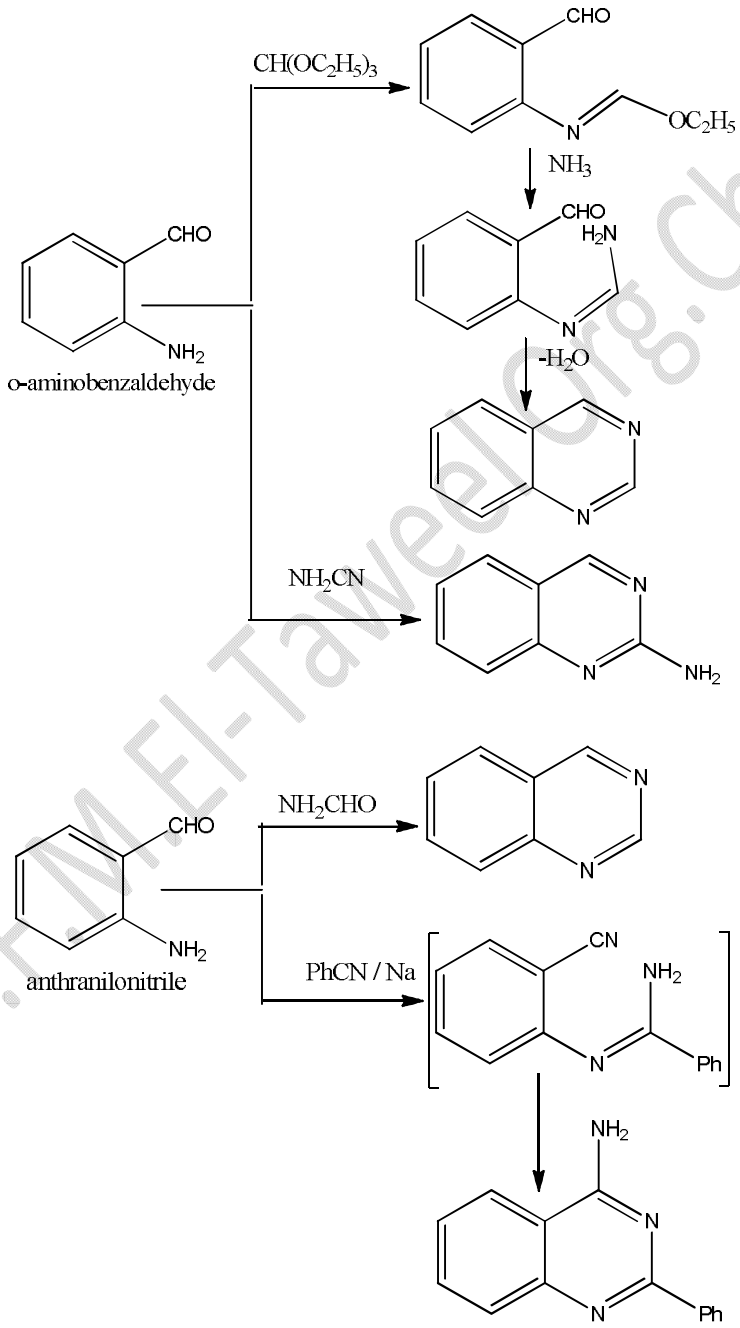
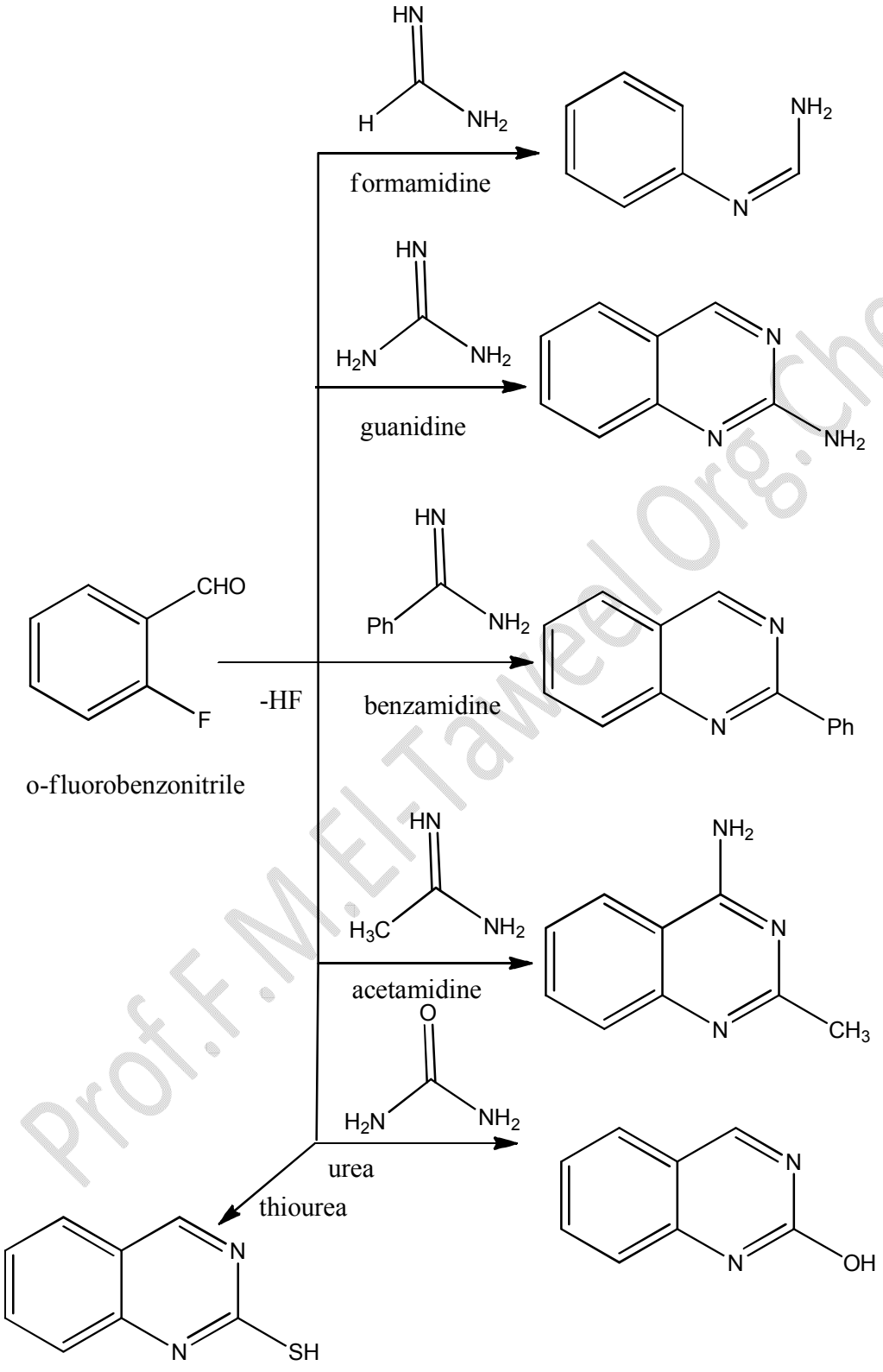
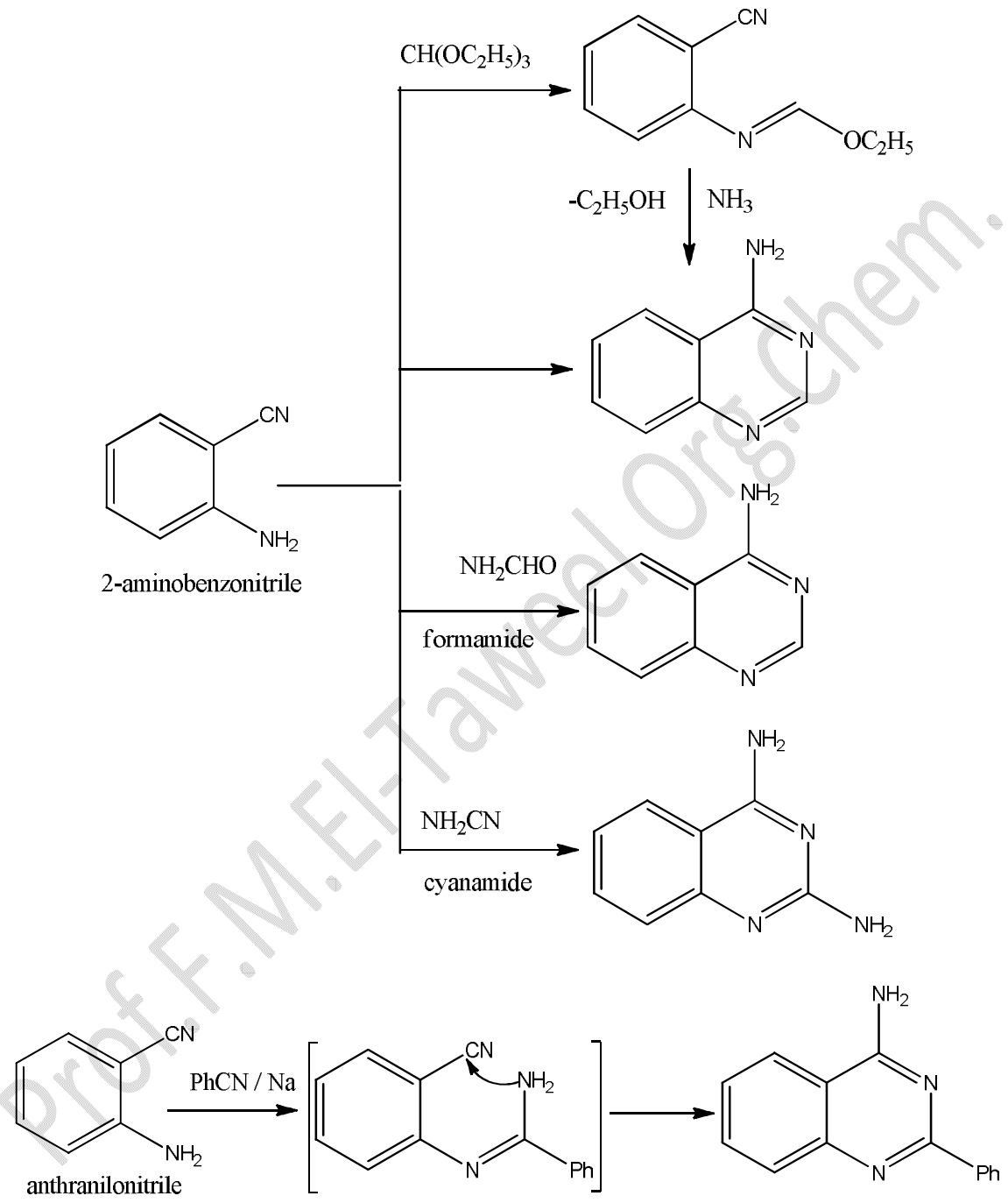
2)Quinazoline

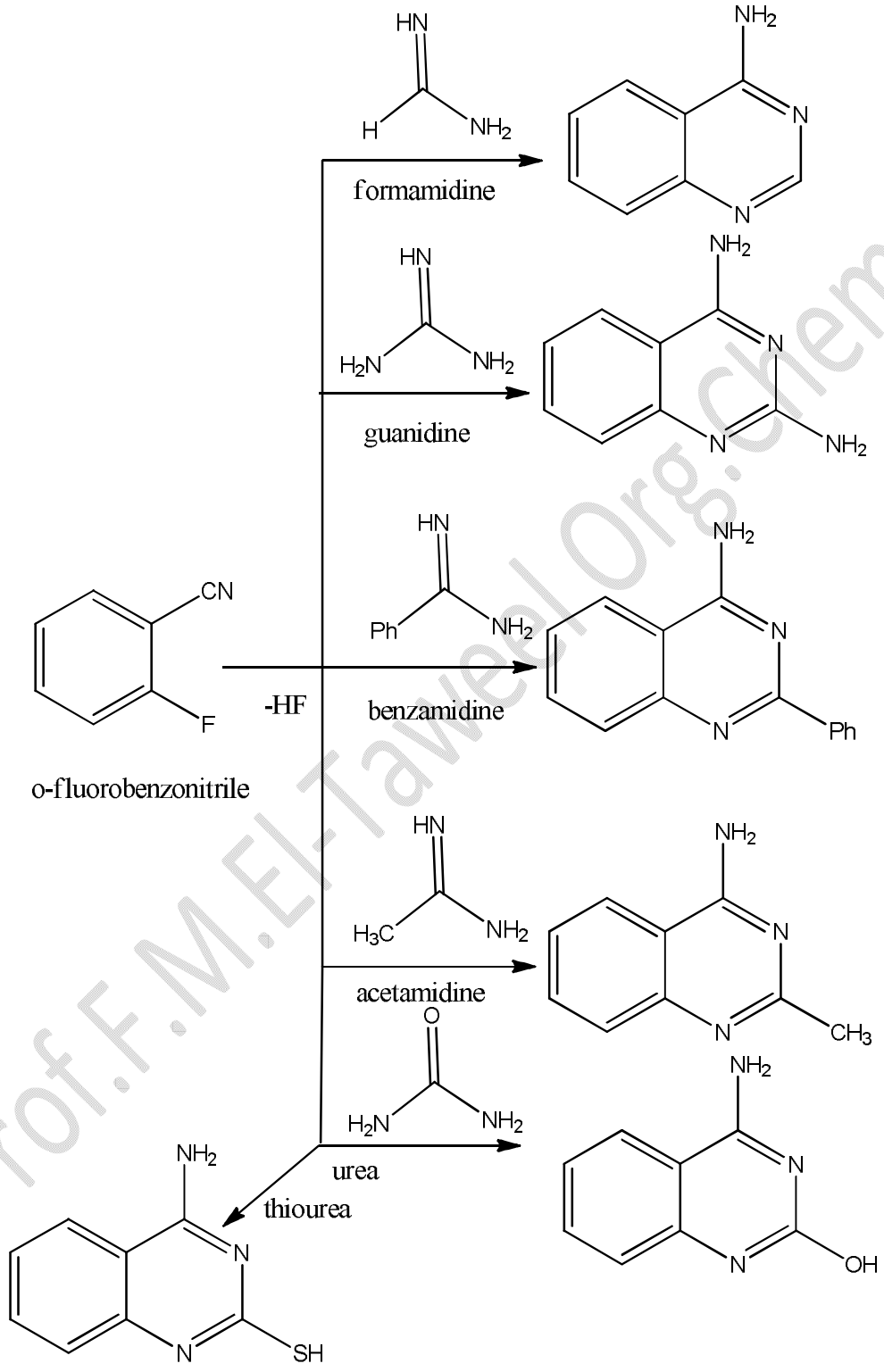


Similarly,2-aminoacetophenone and 2-aminobenzophenone can be used.



From anthranilonitrile





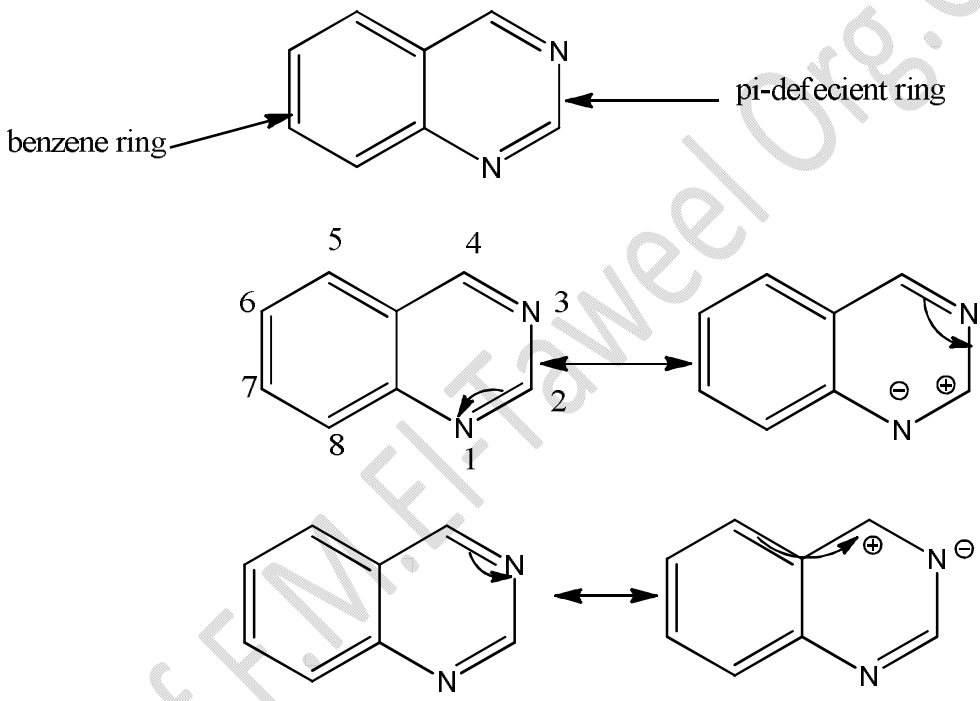
Both of 2-fluoroacetophenone and 2-fluorobenzophenone Can be used for preparation of quinazoline derivatives.

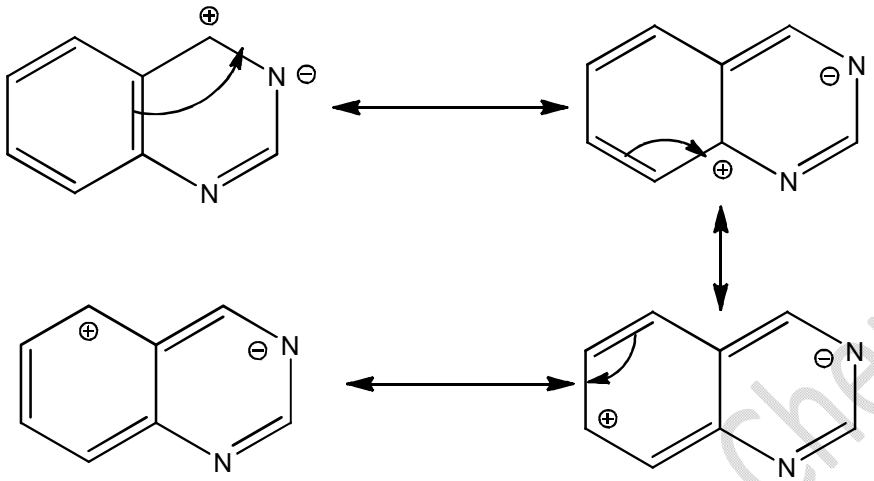
Nucleophilic substitutions :

The nucleopholic displacement of the halogen from 4-halogenoquinazolines occurs readily in the presence of strong nucleophiles .

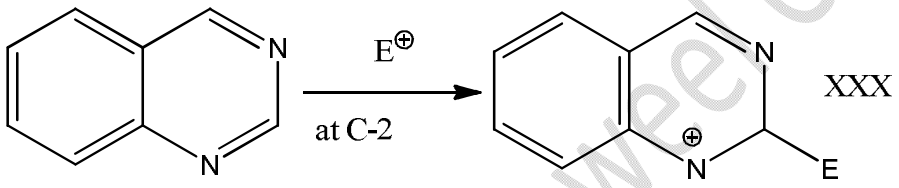
Similar reactions occur with 2-halogenoquinazolines , but the 4-substituted compounds are the more reactive.

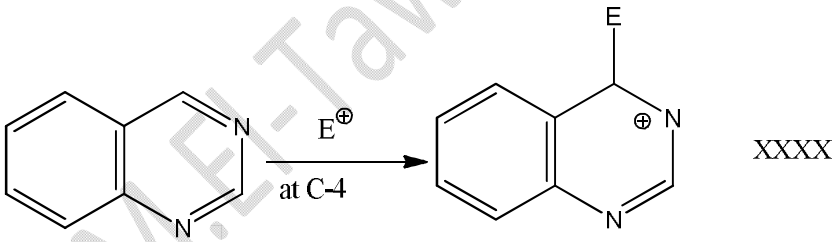
Positions of electrophilic and nucleophilic attack:

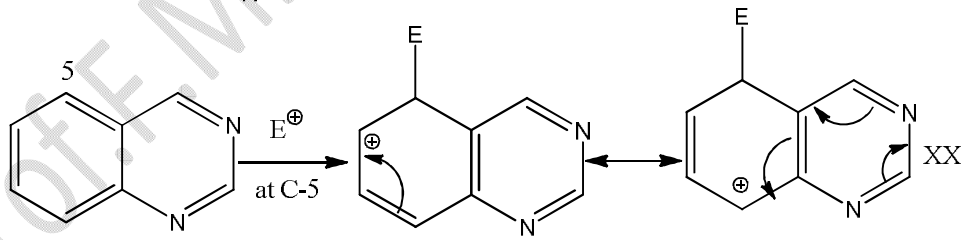


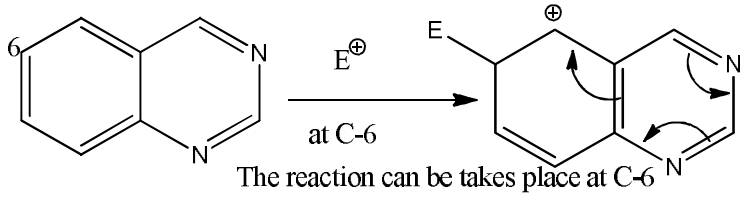


Thus,nucleophilic substitution may be occur at C-2,C-4 and electrophilic substitution may be occur at C-6.

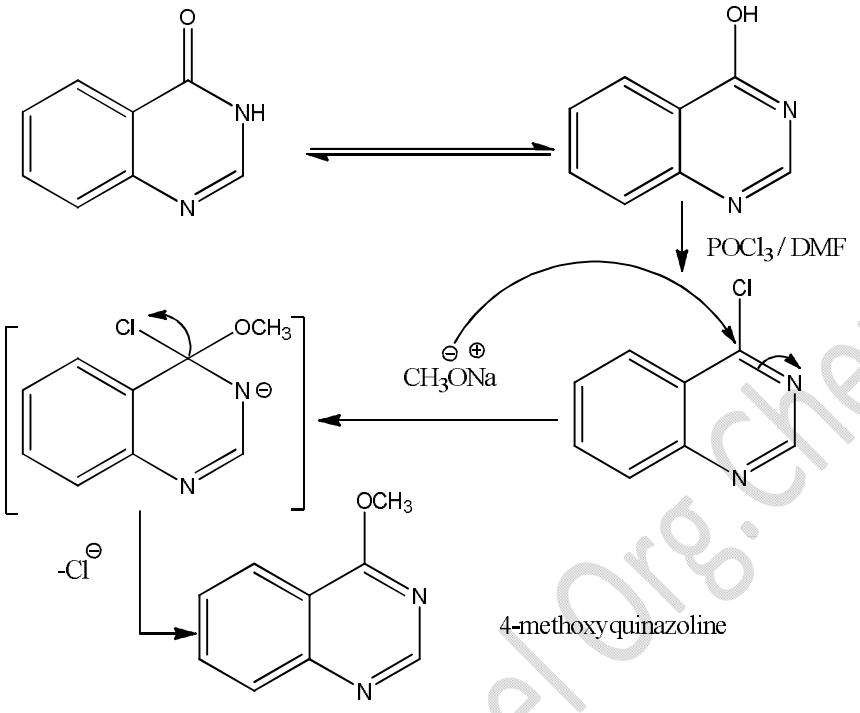


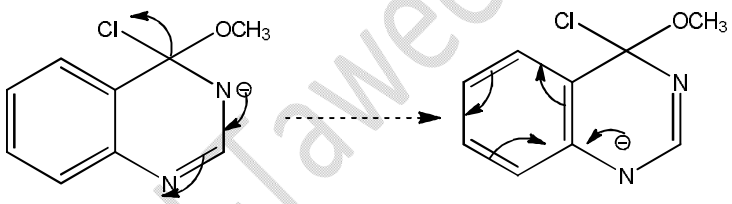




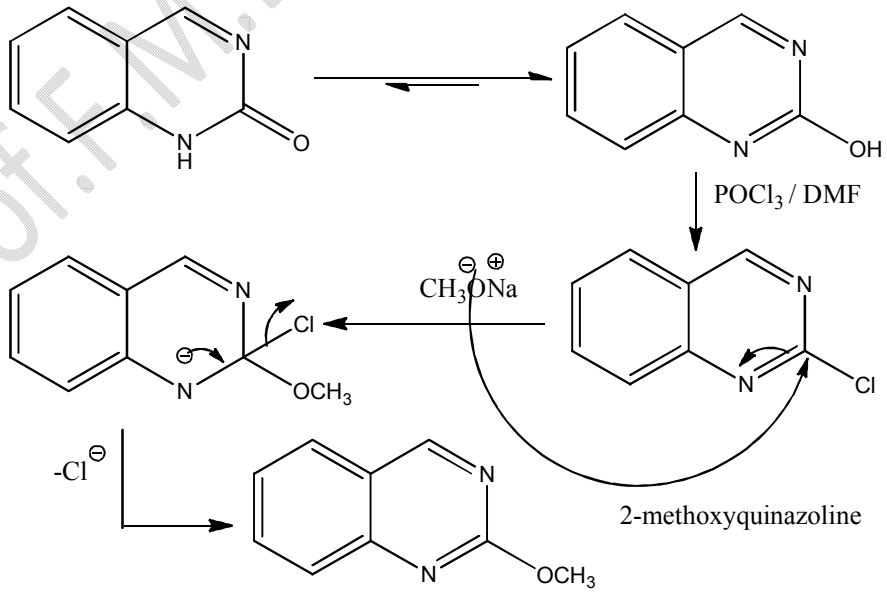


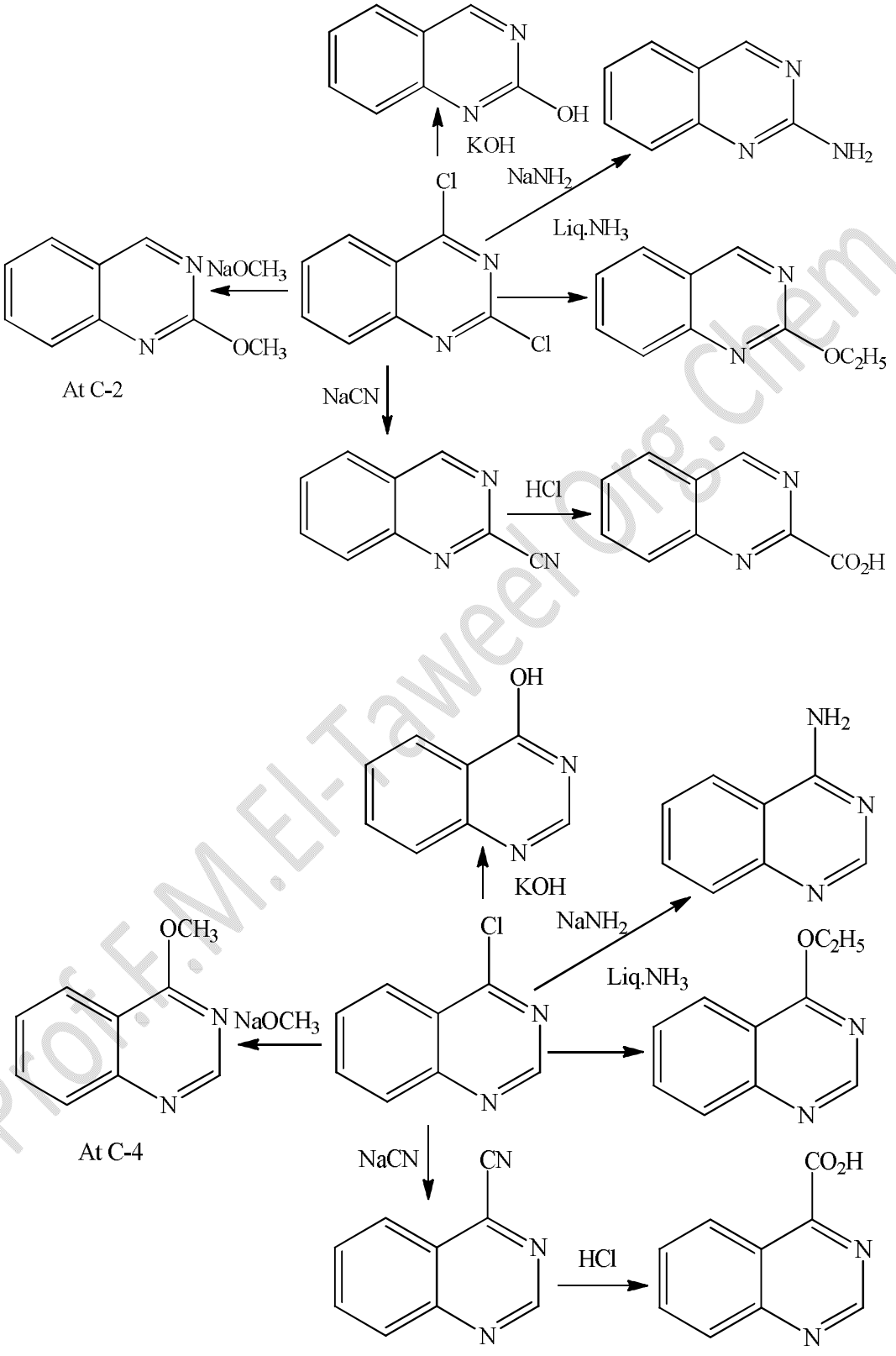
The reaction can be takes place at C-6





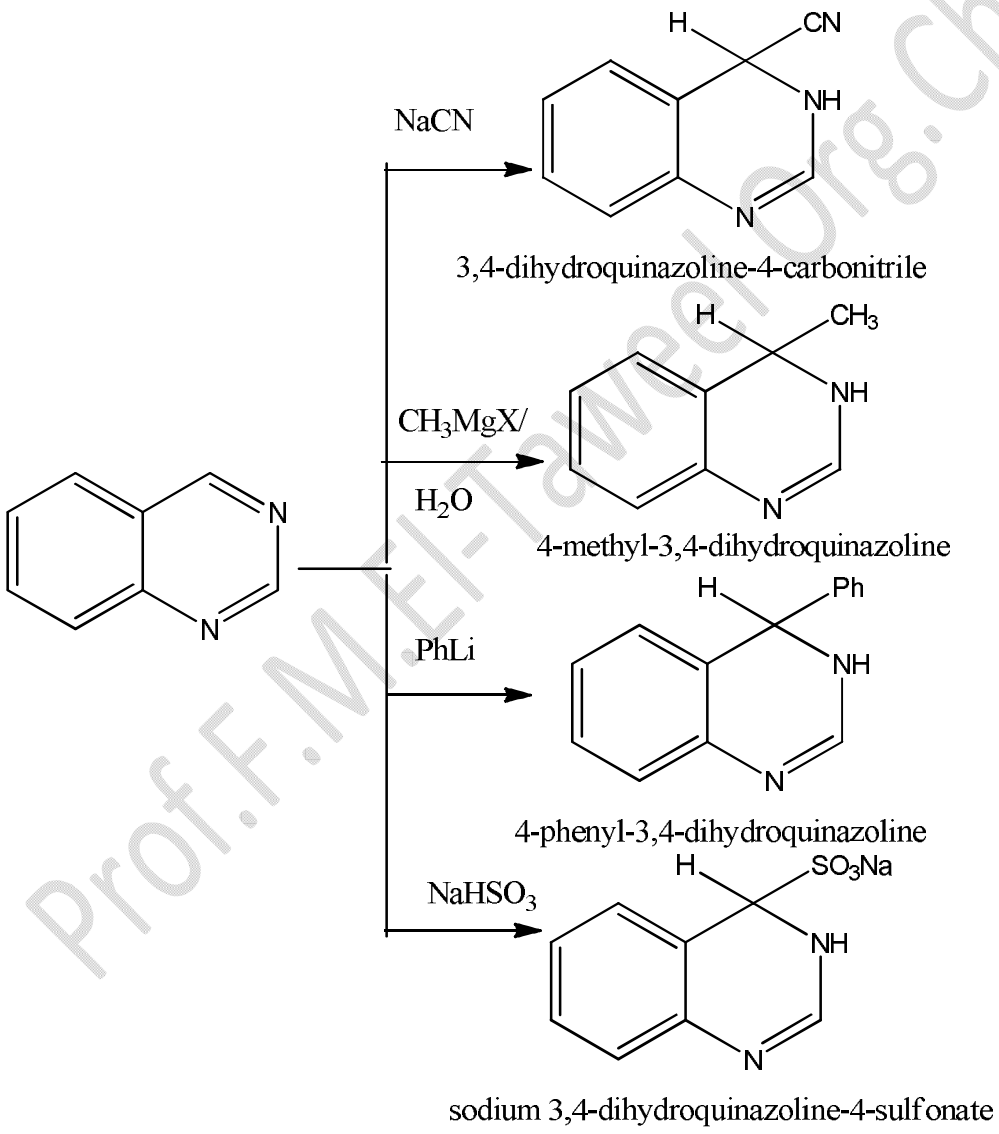
Thus,nucleophilic substitution occurs at C-4 better than C-2.





Nucleophilic additions:

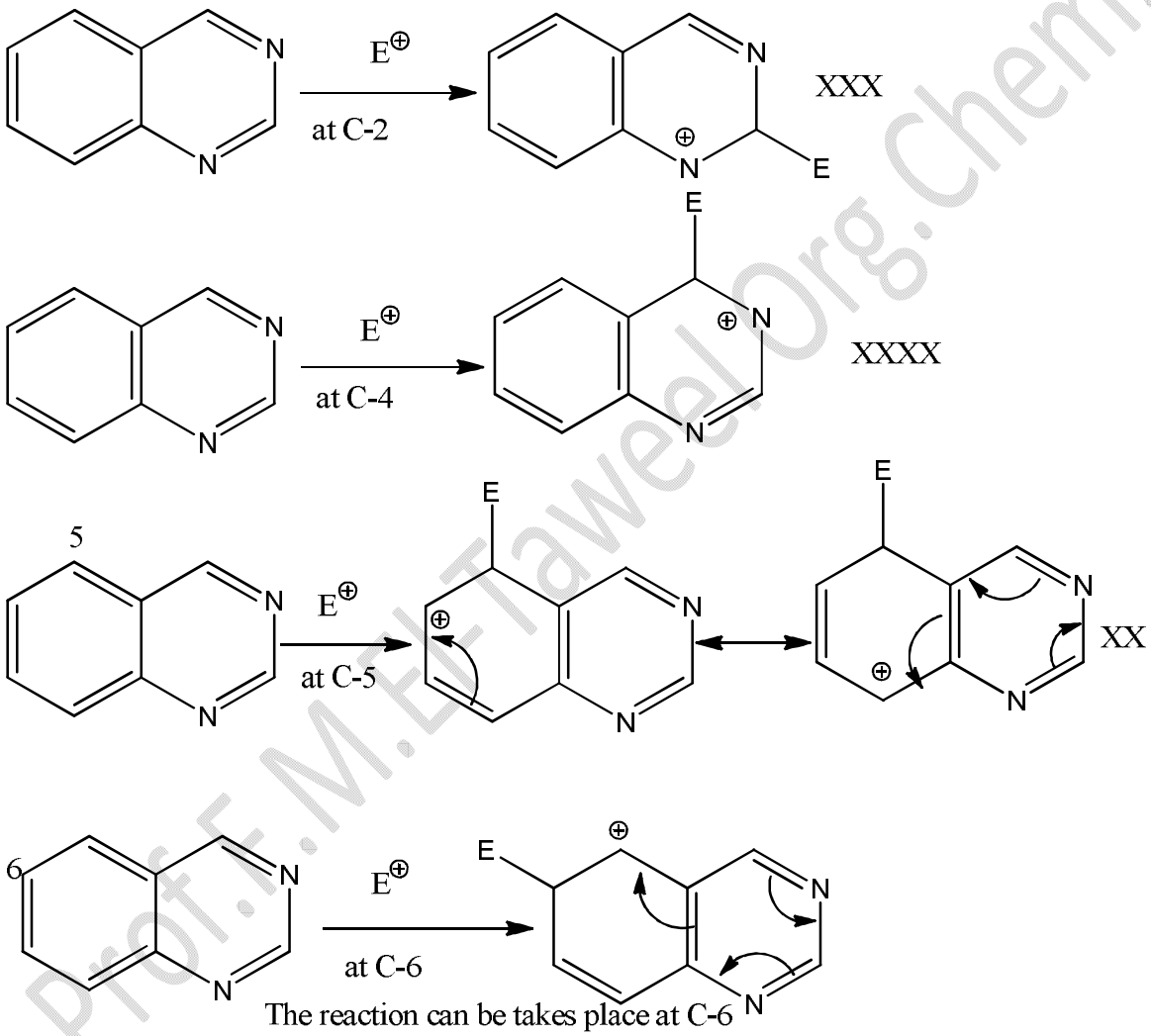
By analogy of these observations,it might be anticipated that other nucleophilic reagents will attack the 4-position in quinazoline , particularly in cases where preliminary coordination of the reagents to the 3-position can occur.This is observe ,with hydrogen cyanide ,bisulphate ions and carbanions,all giving substituted 3,4-dihydroquinazolines.



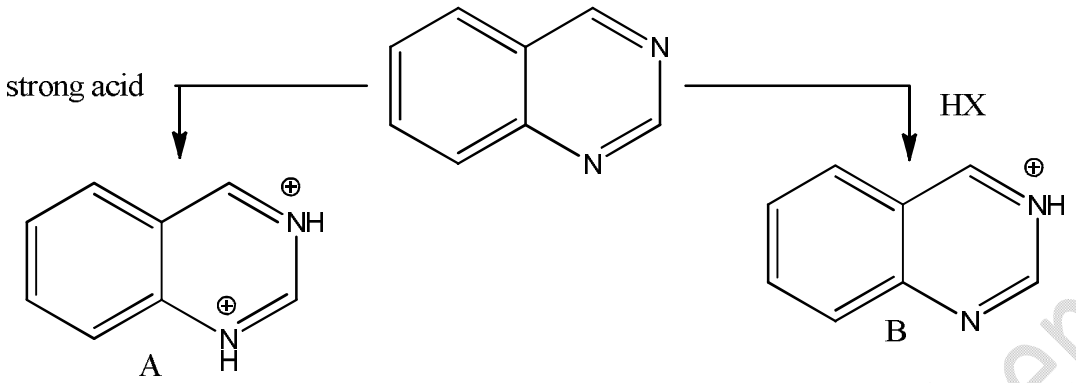
Electrophilic substitutions:

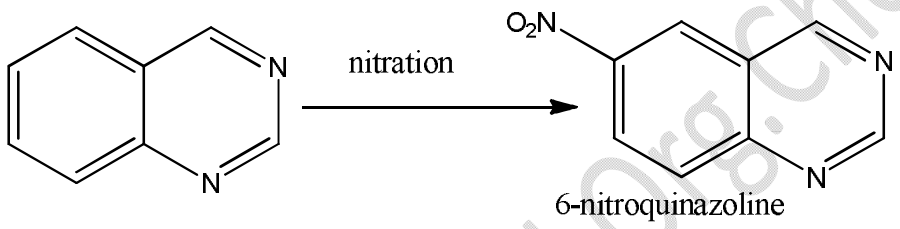
In very strongly acid solutions, quinazoline is largly converted to the direction A either this or the anhydrous cation B is present when quinazoline is nitrated ,since no oxidation occurs and 6-nitroquinazoline is formed.

Electrophilic substitution may be occur at C-6.



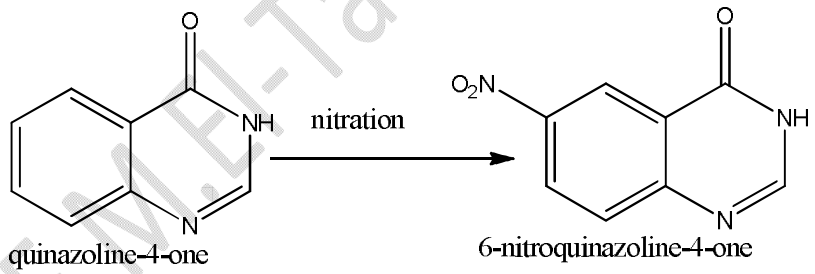
The reaction can be takes place at C-6

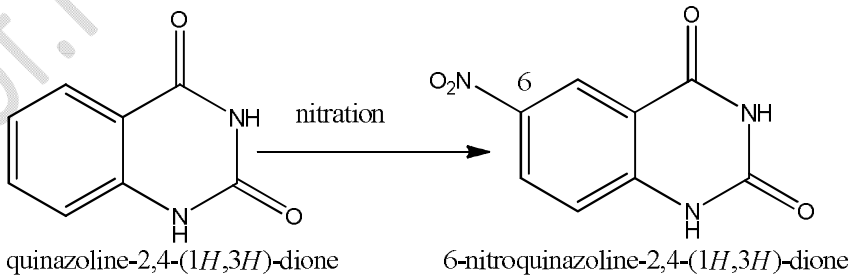




This is in contrast to quinoline and isoquinoline which both nitrate preferentially in the (5- and 8-) positions.

Also,





Reactivity of methyl groups at C-2 and C-4:

The reactivity of methyl groups in the 2- and 4- positions are typical of these azines and their benzo derivatives.

Also,it has been found that,4-methylquinazoline is more reactive than 2-methylquinazoline.